Planning Commission
CITY HALL COUNCIL CHAMBERS
AGENDA OF MAY 13, 2025
7:00 PM

ROLL CALL

PLEDGE OF ALLEGIANCE

APPROVAL OF MINUTES

Regular meeting minutes of April 8, 2025

CORRESPONDENCE

Administrative Approvals

1. PPZ2025-0348 The Dog Wizard Westlake, 34960 Center Ridge Rd.
   Administrative Approval of a Certificate of Zoning Compliance for dog training and day care.

2. PPZ2025-0349 Halo Smoke, 33117 Center Ridge Rd.
   Administrative Approval of a Certificate of Zoning Compliance for a smoke shop.

3. PPZ2025-0350: Hennessey Lawn & Landscape LLC, 36466 Sugar Ridge Rd.
   Administrative Approval of a Certificate of Zoning Compliance for landscaping contractor.

4. Master Tree Plan

OLD BUSINESS

1. PPZ2025-0337: Victory Park, 7777 Victory Lane, PPN 07-00-003-102-106
   Owner: PMJ Park Holdings, 7777 Victory Lane, North Ridgeville, OH 44039. Proposal consists of lighting plan for sports park. Property is zoned I-2 Light Industrial District.

NEW BUSINESS

1. PPZ2024-0299: Hampton Place Subdivision Phase 8, PPN 07-00-029-000-203, -515

Owner: Valore Properties, 23550 Center Ridge Rd, #101, Westlake, OH 44145. Proposal consists of final development plant approval of Hampton Place Subdivision Phase 8. Property is zoned R-1 Residence District.

2. PPZ2024-0308: Circle K, 34273 Lorain Rd, PPN 07-00-014-106-012
   Applicant: Brett Lamb, Circle K Stores, 935 E. Tallmadge Ave, Akron, OH 44310. Owner: AGLR Investments, LLC, 36097 Westminister Ave, North Ridgeville, OH 44039. Proposal consists of a new Circle K gas station and retail store. Property zoned B-3 Highway Commercial District.

ADJOURNMENT

NORTH RIDGEVILLE PLANNING COMMISSION
MINUTES OF REGULAR MEETING
TUESDAY, APRIL 8, 2025

CALL TO ORDER:

Chairman Smolik called the Planning Commission meeting to order with the Pledge of Allegiance at 7:00 PM.

ROLL CALL:

Present were member Frank Toth, Council Liaison Bruce Abens and Chairman James Smolik.

Vice-Chairman Paul Schumann and member Steve Ali were excused.

Also present were Assistant Law Director Toni Morgan, City Engineer Christina Eavenson, Planning and Development Director Kimberly Lieber and Deputy Clerk of Council Tina Wieber.

MINUTES:

Chairman Smolik asked if the members had a chance to review the minutes of the regular meeting on March 11, 2025. He asked if there were any corrections. Hearing none, the minutes were approved as submitted.

CORRESPONDENCE:

APA Cleveland Planning & Zoning Workshop

Chairman Smolik asked Director Lieber to discuss the APA Planning and Zoning Workshop.

Director Lieber stated that the registration was currently open for the May 15th Planning and Zoning workshop in Independence and the Planning Commission opted to attend that workshop in lieu of bringing in an educational speaker. She asked that they let Tina know if they planned to attend to ensure that all the members who planned on attending that day were registered. She stated that it was from 8:00 a.m. to 4:00 p.m. and promised to have a very educational variety of topics. She mentioned that that they had set a date for a public meeting for the Lorain Road and Lear Nagle Road traffic study public meeting, which would be on Monday, May 12th at 6 PM at LCCC Ridge Campus and were planning on hosting it there in the lobby, which was in the study area. She stated that the building was in the study area of the traffic study, so they would be able to experience the traffic firsthand on their way to the public meeting. She added that there would be a presentation by their consultant and then they would have some engagement opportunities for attendees and some additional input opportunities through the website after that meeting.

Chairman Smolik asked who the consultant.

Director Lieber stated that it was Woolpert.

OLD BUSINESS:

NEW BUSINESS:

Director Lieber asked if Deputy Clerk Wieber would read them in the numerical order as opposed to the agenda order starting with the second applicant as technically it was old business.

PPZ2024-0319 City Limits, 39462 Center Ridge Rd, PPN 07-00-046-101-006
Owner: Stephen Joseph, 36821 Sugar Ridge Rd, North Ridgeville, OH 44039. Proposal consists of building and site improvements for restaurant and lounge. Property is zoned B-3 Highway Commercial District.

Application was read.

Chairman Smolik asked Director Lieber for findings of fact.

Director Lieber stated that as they were aware, Council had approved the rezoning from industrial to commercial, so the use of a restaurant was permitted, and a lounge was a conditional use in the district. She explained that Planning Commission had previously tabled the development plan with the request for some additional information and she wanted to go through some of their requests and how the plans stood that day. She stated that Planning Commission had requested the relocation of the ingress curb cut further west in order to protect the utility pole and hydrant and for the right of way to provide more spacing and separation. She discussed that the site plan did show the curb cut had been moved as a result of striping around that landscaped area but she believed that Planning Commission was hoping to enlarge the curbed landscaped area to create more directionality at that curb cut to create protection for the utility pole and the hydrant. She added that she wasn't sure that just adding paint or striping adjacent to that planter really satisfied what the Commission was looking for to create more of a buffer in that location. She mentioned that they had requested that the parking lot be patched, sealed and restriped on a site plan and the note was updated. She stated that Planning Commission had asked for more detail on the elevations to include proposed colors, materials and construction detail and a canopy detail had been added to the drawing, the overall height of the building was noted, but the construction detail remained a little bit limited and there was no detail on the stucco application. She indicated that if Planning Commission approved the elevation, that would have to be worked out in the permit process. She stated that they had requested a little bit more landscape detail and they received a planter spec and a shrub detail. She discussed that they had asked the applicant to ensure that the railing was provided around the entire patio portions above grade, and it was a little vague as to where the railing was going to be located but it was now shown around. She stated that she believed that the applicant was going to provide an update as to their proposed fence style. She said that lastly the Commission had requested a photometric plan and light fixtures needed for review and they did receive a photometric plan, but it had not been presented in a manner that they could review in accordance with the code. She explained that it was not on the 10-foot grid and was not in foot candles. She added that they also needed to see compliant light fixtures because the fixtures that were shown at an angle were not full cut off. She stated that the light plan said that they would be horizontal, but that was not the cut sheet they received as it showed angled, so they still had some of those lighting details that needed to be worked out prior to any permit issuance.

Engineer Reitz stated that Planning Commission should be aware that the engineering concerns were with the landscape island in particular to protect the fire hydrant as well as the existing sign there. He mentioned that they agreed with the comments that were just stated and that they would prefer that the area of the parking lot that was to be removed for the landscaping be curbed for safety purposes, because that fire hydrant was kind of sticking out that way and that being by the exit, the proposed exit driveway, they were concerned about vehicles hitting it and a curb would protect that as well as

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enlarging the landscaping island instead of striping. He discussed that secondarily, they would support the sealing, striping and patching of the parking lot versus just strictly striping it because that parking lot had been there a while and they would like to see that happen first for the reconfiguration of the new parking area.

Chairman Smolik asked if there was a representative present for the application.

Stephen Joseph, 36821 Sugar Ridge Rd, North Ridgeville, OH 44039.

Geoffery Smith, 124 Middle Ave, Elyria, OH 44035.

Chairman Smolik stated that they were before the Commission previously in regards to that project and asked if they had any additional information they could provide.

Mr. Joseph stated that regarding the original site plan, the striping was out in the right of way, which was out past the telephone pole and the fire hydrant sat outside it towards the road from the telephone pole. He discussed that they had asked him to move his striping back and stated that he did and took it behind the utility pole which exposed the fire hydrant and the electric pole. He stated that he didn't how they wanted him to configure that because the fire hydrant stuck out into the right of way of Center Ridge Road.

Mr. Smith stated that they would be looking for some direction on that. He added that he thought the photometric plan was something that could be approved in house through the administration.

Director Lieber stated that first with the parking and that landscape island, they could absolutely have no parking striped in the right of way and that was a problematic condition that the plan allowed them to correct, but by expanding that landscape island a little towards the west, giving a greater presence, that it would have the effect of protecting the utility pole by folks not driving tightly around the corner. She discussed that regarding the lighting plan, it could be approved administratively, it just needed to be presented with all the information required to determine zoning compliance, and so far, that hadn't happened.

Mr. Joseph stated that it was already on the plans that they were going to patch and seal and restripe.

Mr. Smith stated that it sounded like Mr. Reitz didn't show that on the plans.

Mr. Reitz clarified that in the original request it was that it be sealed and restriped, but now the remaining item would still be installing a curb around the section of the island where the fire hydrant sat and the existing sign, because he thought that would be an additional measure of safety for that fire hydrant, the pole and the sign.

Chairman Smolik stated that there was some new additional information presented to the Commission and asked if the applicant wanted to talk about that.

Mr. Joseph stated that that was what he had proposed for the railing instead of what was shown on the drawing because it was a one and three-quarter inch schedule 40 steel railing painted but he thought that the powder coated aluminum railing looked a lot better and would present the property a lot better.

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Chairman Smolik stated that for clarification, what had just been submitted was a substitute for the metal railing detail and also there was a shop drawing in there of a railing system that was for another project and asked if that was gone as well.

Mr. Joseph stated that was correct. He mentioned that regarding the stucco, it was just going to be cement stucco over the existing cement brick.

Chairman Smolik asked if any of the Commission members had any questions or comments.

Member Toth asked regarding the pots that he planned on using for traffic control, which size he would be selecting because the information he submitted there were a variety of sizes shown.

Mr. Joseph stated that he was going with the 30-inch pot.

Chairman Smolik asked about the triangular area towards the back that he was going to leave as aggregate and weeds, if there was a reason that he wasn't going to plant grass back there.

Mr. Joseph stated that the reason was because there were so many utility poles, and the water actually drained back that way because the ditches from the Turnpike ran down that way and the and the railroad track ran down that way and all the water went down there. He mentioned that he didn't think he could keep it up because the water would saturate the grass too much and he wouldn't be able to mow it. He stated that he would rather keep it in stone so that the aggregate would just drain itself.

Chairman Smolik asked if it was going to be stone and not weeds and stone.

Mr. Joseph stated that no, it was going to be sprayed for weeds and was just going to be aggregated and would be maintained.

Chairman Smolik asked if they were going to generate a new photometrics plan.

Mr. Joseph stated that the engineer was going to it that week. He stated that he had it on 30-foot squares because the parking lot was so big that he thought that if he put it on 10 by 10s, they wouldn't be able to read the numbers. He stated that he put it on 30-foot squares and he had all the lumens all the way out to the ends of the parking lot and thought that it would kind of cover the rest of the parking lot.

Chairman Smolik asked if the elevated outdoor section was concrete.

Mr. Joseph stated that was correct. He mentioned that it was going to be split face block and then a concrete cap.

Chairman Smolik asked if there were any other questions or comments from the Commission.

None were given.

Chairman Smolik asked if there were any questions or comments from the general public.

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None were given.

Moved by Smolik and seconded by Toth to approve application with the conditions that the curb recommendations be made to protect the utility pole and fire hydrant and the administration shall review the incomplete lighting plan and photometrics.

A roll call vote was taken and the motion carried.

Yes – 4 No – 0

PZ2025-0335: Panda Express, 32429 Cook Rd, PPN 07-00-003-102-104, -045, -046
Applicant: Phillip Meador, Heights Venture Architects, 5741 Legacy Dr, Suite 320, Plano, TX 74024. Owner: Cook Road Properties, LLC, 7670 Tyler Boulevard, Mentor, OH 44060. Proposal consists of constructing a new drive through restaurant. Property zoned B-3 Highway Commercial District.

Chairman Smolik asked Director Lieber for findings of fact.

Director Lieber stated that the proposal consisted of a new drive-through restaurant and that drive-through restaurants were permitted in the B-3 Highway Commercial District. She discussed that the project site consisted of three parcels on Cook Road and were all zoned B-3, which included the vacant undeveloped lot just to the east of Starbucks and then also two adjacent parcels, one that had a commercial building that had been used as an auto repair business and that the parcel after that before the multi-tenant Plaza. She stated that the building was a 2,700 square foot building that was a combination of stone, composite cladding, EFIS and they were showing a dumpster enclosure that would be constructed out of similar materials. She explained that it would have a double drive-thru and that code required stacking for at least 10 vehicles and must be designed to allow vehicles to exit the waiting lane. She stated that the applicant had updated a previous version that didn't have the exit to include it, but didn't believe they had a stacking exhibit to show the 10 cars. She mentioned that a detailed landscape plan was included and that they did get some feedback from the City Arborist that was incorporated, but the site plan did show a new ground sign in an area where there was an existing tree that was to the west of the driveway, that would need to be relocated and she would champion the relocation and not removal of any trees for any future sign placement. She said that the lighting plan had been reviewed and that it showed the lighting levels were code compliant. She discussed that the fixtures would be mounted at 18 feet, but they did not have fixture cut sheets provided for the pole lights and if there were building lights, they had not received cut sheets for those building lights either. She said that they had seen conceptually where the signs would be located on the property and building, but an official sign package had not been submitted and oftentimes those would come later, so that would be reviewed when it was submitted. She indicated that for that project, access management was a key concern of staff along the stretch of Cook Road and that there were a lot of curb cuts that were frequent and poorly defined. She explained that there were some newer developments that were connected to the older developments through cross access easements. She added that it didn't conform with the current access management standards for spacing. She mentioned that a positive to that project was the curb cut to the auto repair building would be removed. She said that Panda Express did show that they were going to be utilizing the existing curb cut shared with Starbucks and then they would also share some parking spaces and the drive aisle that would be adjacent to the Starbucks drive through. She stated that the drive aisle between Starbucks and the new parking would be one direction, just the same direction as the drive

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through traffic in that location and cross access was also provided between the Panda Express property and then the commercial building to the east on Cook Road. She discussed that there were numerous access and utility easements that are impacting that property and adjacent properties. She indicated that in terms of parking, the project met the requirements and that 27 spaces were required given the area, and 40 were provided. She stated that staff had a conversation with Panda about the spaces that were shown closest to Cook Road, the ones that would be heading into Cook Road and there were four and now there were three in that location. She mentioned that in her opinion those would create the likelihood of conflict between the vehicles traveling in and out of Cook Road and then also on site traffic circulation because with the two curb cuts to Cook Road in such close proximity and vehicles that might be entering or exiting either curb cut and cutting across the property, and then they had drive through traffic that would be heading out of the drive through and then the potential of parking in those spaces with people backing out of those spaces, she just thought that those spaces should be removed and they could be removed without impacting the parking count. She said that sidewalks were required and provided along with a pedestrian route to the building. She stated that bike parking was required for that use, which should be shown on the plan. She mentioned that truck turns were provided, and she noted that the exhibit showed both a 40-foot fire vehicle and then also semi-truck, but it looked like the semi-truck could only traverse the site if some of the parking spaces were vacant. She stated that she was not sure, based upon discussion with the applicant, what type of vehicles they expected to make deliveries or what vehicles made deliveries currently to Starbucks, but if they were going to be semis, then there could be some potential issues depending on the time of day that those truck deliveries were made. She stated that the applicant did submit a traffic impact study and that recommended that a 100-foot eastbound right turn lane be constructed on Cook Road leading to Starbucks and the Cook shared driveway that had not been included in the Panda Express submission. She said that there had been some discussion with the City's Woolpert consultant who had conducted the Lear/Lorain study that they had requested that they reviewed that traffic impact study also in light of just traffic in the situation happening just up the street, given the heavy traffic in that location and noting the minimal driveway space in between those curb cuts. She explained that Woolpert made some suggestions for potential improvements to access and on-site circulation, and those included potential of maybe one way drive aisle in or out since there were the two and modifying the on-site traffic circulation to maybe one way, just to reduce the number of potential conflict points. She said that those were shared with the Panda team, but they were not amenable to discussing those changes to either the driveway locations or circulation patterns. She added that she did see that there was a benefit having removed one of the existing driveways to Cook Road, but the future use of a restaurant was going to drive significantly greater traffic than an auto repair place in that location would have because it was in fact a drive through auto oriented use, and it was going to add more traffic to a pretty congested intersection. She stated that the driveway spacing and cross access site circulation was a key issue with the project and she didn't know that staff had fully digested or been able to discuss all of their concerns and potential improvements with the applicant, so she would leave it in Planning Commission's hands to carefully consider those issues with the project. She recommended that the Planning Commission make lot consolidation a condition of approval and stated that she had some other recommendations including providing bike parking, removing those three spaces, identifying loading or unloading areas and identifying the type of vehicle for the truck turn and making adjustments if needed to circulation, if it would be semis, show the vehicle stacking and provide some lighting clarifications.

Engineer Reitz stated that they agreed with the comments that were made by the Director in reference to the traffic considerations, especially when looking at the Woolpert traffic study review that talked about making one of the driveways in and making the other one an exit, because they did have a lot of cross traffic there between basically three properties that would be sharing two different driveways. He stated

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that they did agree with the Planning Commission considering some of the comments from the Woolpert follow-up study and commented that during a deep further detailed engineering review, they would still have some issues to discuss with the applicant for water quality features and so forth because some of the storm water was going into the Starbucks property and they wanted to make sure that they not only looked at making sure that they were meeting the EPA requirements for not only water quality but water quantity control there because of how it was being proposed. He added that they did propose some infiltration trenches in their bioswales as they may be within the property, but they would reserve further discussion with them after it moved forward, once they got into a more detailed engineering study.

Assistant Law Director Morgan stated that she was hearing a lot of access issues and was hoping the applicant spoke to those, but asked the administration if there was anything, specifically ordinance wise, that they were in violation of.

Director Lieber stated that they did have minimum spacing requirements between driveways and they didn't meet the minimum spacing, however, both of the curb cuts were existing, and it would be removing one in the middle, but it was new construction and to her was an opportunity to improve beyond the existing condition and to prevent problems before they occurred. She added that there was still a role for Planning Commission discussion, even if those curb cuts existed, because there was substantial change by adding a new drive-thru restaurant that shared access and shared parking in part with Starbucks in that case.

Chairman Smolik asked if there was a representative present for the application.

Phillip Meador, Heights Venture Architects, 5741 Legacy Dr. Suite 320, Plano, TX.

Mr. Meador stated that what was interesting about this project was the existing curb cuts and that they were close together. He indicated that there were actually access easements that were created and in fact, the existing drive that they were still utilizing on the right, that one was created in 1969 and was still there, so they would have to get permission from whoever that was connected to. He mentioned that the same thing applied for Starbucks because when they did their project, they actually put in an access easement that went through and even expanded at one point to include a car wash that was planning on going in to the south of that at one point and they somehow got connected into that. He stated that they were going to somehow create access and that was going to go all the way through the side. He stated that some of the issues had been that in order to change those drives, they would have to get permission from other people to do so and they had talked to Starbucks, and they were pretty adamant that they liked their access the way it was. He added that they were actually enlarging it a little bit to try to help with being able to get a truck in and out, which they were fine with, but when they tried talking to them about some other things they really were pretty adamant that they liked their access the way that the easement was drawn going through the site. He said that that made it obviously difficult to do some of the recommendations like the right-in, right-out, or make that a right-in only or even one of the suggestions was to remove that one and do just the entrance that was a little bit further away from the intersection specifically to help traffic. He stated that regarding the parking count, they were aware that they were above the minimum and some of the numbers that Panda had sent him was that when it came to their dine-in during the lunch hour, they tended to average between 42 and 45 per day transactions and while there might be a little bit of people coming in a little early and people that would come a little late, it was still a decent number of people and the parking spots were needed, at least as many as they

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could get there. He mentioned that the average that they aimed for was about 40, give or take. He said that those three spaces that were off of Cook Road, those were intended as drive through waiting spaces and the idea was that whenever an item was either slow or something like that, somebody would just pull into that spot temporarily and then somebody would bring out their food when it was ready. He added that those spots weren't really intended for every day, just somebody parking there. He said that one of the discussions with Panda was if those were removed, they would need to go somewhere else and would then have that traffic coming back over and then into the main parking and that could actually cause a couple of other conflicts in different ways just because that traffic would be going back and forth. He stated that they did try to provide that sidewalk connection and the intent now was that there was a little bit of space over there next to that and that was where they were planning on putting the bike rack. He stated that he thought they had a call out for that to be on the drawing but they would definitely put that in there. He mentioned that regarding the truck access, he thought the engineers actually did a little bit larger truck than they normally did. He stated that a WB55 was what they typically tried to plan for and he thought they had a WB65, so that was a much larger truck than what normally was planned for. He said that typically regarding where the drop off was, the truck would pull up to the side of the building and basically offload. He stated that the deliveries were almost always early in the morning before any of the Panda customers would come in there. He mentioned that he thought they would work on the traffic study a little bit because he did see a couple of conflicts because they couldn't go into the Tesla parking spots. He stated that they could go into the Panda spots because there shouldn't be anyone there.

Director Lieber commented that they were showing the trucks coming in and out off of Cook, but wouldn't the trucks be coming in and out of Lorain Road and down Cook from Lorain, not heading west on Cook, but coming off the highway onto Lorain and then turning onto Cook and then coming that direction. She stated that she thought it might matter in terms of showing the truck turn, which direction the trucks would be permissibly coming from and going to, to show the turn radius.

Chairman Smolik stated that was correct, he assumed that they would be coming from the interchange.

Mr. Meador discussed that when he drove to go to the meeting that night, they actually happened to drive by the site and so he saw that that was the typical direction coming off the highway and they would update that to show that. He said that regarding the stacking, that they did have 14 stacking, and they typically aimed for about a 10 by 20 space for the stacking cars, and he thought they got 14 in there. He commented that they would definitely send more on the light fixtures and that there were some building lights that probably needed to be considered but he didn't know if they sent a night shot to them of what one of those looked like but they would send that as well to be reviewed.

Chairman Smolik asked if there was anyone from the general public that had some questions or concerns about the project.

Connor Grizay, 3849 Beavercrest Dr, Lorain, OH 44053.

Mr. Grizay stated that he operated the automotive business at 32425 Cook Road. He commented that he really just wanted to touch on some of the traffic that he saw throughout his day-to-day activities there. He mentioned that he tried to read the documents that were presented about the traffic and read all the charts and just wanted to touch on some points about the trucks. He stated that the applicant said that Panda would be delivering in the morning, which was Starbucks's busiest time. He said that they had to

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block off their parking lot from Starbucks due to the customers driving over the curbs to get around the traffic. He added that he did have a camera up front because prior to having the camera, somebody side swiped the vehicle that he had parked up front and drove away and that was due to the traffic from Starbucks being so busy. He discussed that when he went in on the weekends, there were five to seven cars parked in his lot but that he didn't have a problem with that at all, especially if it helped the safety of consumers and citizens. He stated that there was a preschool down on the west side off of Lorain heading towards Lear Nagle and there was also a school east of his building as well. He said that Starbucks users also used Cheap Tobacco, the detailer lot and even the BP because that was how much traffic really that Starbucks really brought. He stated that regarding the Tesla charging stations, he saw multiple new trucks and cyber trucks, things like that that that he had never noticed before and that there was a lot of yelling and cursing and horns that went on throughout the day. He mentioned that regarding the Starbucks entrance, which was very thin, a lot of people turned left and that traffic light was very short right there, as they were all aware, and it would get backed up very quickly because if somebody was waiting to turn right three cars behind somebody who was waiting to turn left, it made it really challenging and he saw it get backed up very quickly. He added that the day prior he had seen a lady who had to swerve out of the way because she was going to turn right out of Starbucks, and somebody was pulling left off of Cook Road into Starbucks parking lot and she had to go over the curb or else it would have been an accident, a very slow moving accident, but still just something to note. He commented that he had seen the plans and how they were going to have the two driveways, and he was worried that that was very close. He stated that people had to pay attention for vehicles coming west and east and not only that, but out of the BP parking lot, there was a back parking lot from Panera, Dunkin, Chipotle and LC all right there along with the schools there to the east of what was shown in the picture, as well as the detail and Cheap Tobacco, which were very busy towards the later hours. He said that he was just really concerned about the traffic being there. He stated that he knew that the lot on the corner of Lorain Road was probably not as sizable as the three parcels that Panda wanted to build on, so he did understand that the size of the matter was not too pristine, but he didn't know if that was another option or if that was even possible. He stated that he did believe that would help with the traffic a little bit. He said that his last point was that when he was reading the traffic report, he saw that they suggested plans to add lanes to Cook Road and maybe even Lorain Road, which would not be beginning until 2036 and would be 10 years after Panda was built and he didn't know if they would want to bring in more traffic before doing that road construction. He commented that as Kim had mentioned something about doing the fixing and enlarging before they would want to build and bring more traffic.

Chairman Smolik asked if there was anyone else in the audience that had any questions or concerns.

None were given.

Council Liaison Abens asked if they had permission from Starbucks to use that particular driveway currently.

Mr. Meador stated that yes, they did meet with them in order to make sure that the site plan married up with theirs and they were happy with how they did it. He said that they were aware of what they were doing, and they were okay with that.

Member Ali stated that for the record, Cook Road was a non-truck route.

Member Toth commented that they were given an alternative circulation that was strictly one way,

which would eliminate quite a few of the conflict points in their parking lot and asked the applicant to reiterate in detail why a one-way flow would not work for their project there with traffic flowing one way.

Mr. Meador stated that when they were looking at that specific comment, what they ran into was by basically sending all the traffic going up through that one side, it would back up in a very specific way and potentially cause some other conflicts in other places by at least allowing traffic to come back up through the Panda. He commented that if both entrances were maintained, there was also an option point, so the traffic could potentially queue and also move in other ways. He said that that was really kind of the main idea of why Panda would like to keep that was basically the flexibility of allowing the traffic to do what it needed to do.

Mr. Toth asked if that didn't also open up the opportunity for overflow out of Starbucks to basically run amok in that lot.

Mr. Meador commented that that was a good point and as was previously brought up, it sounded like Starbucks was already kind of working on doing that anyway, so that may be something that they needed to take back and consider.

Chairman Smolik stated that his initial comment was that just because it was an available lot, didn't necessarily mean that that was the right use for the lot. He commented that it seemed like there was a lot jammed in on that parcel and not only was the parcel tight to begin with, but that was probably one of the busiest intersections in the city. He stated that traffic, traffic, traffic, that was the consensus and even the administration made comments regarding it, but it seemed like they really weren't picking up on it and the fact that traffic was such a major issue, not only for the administration but for the general public.

Mr. Meador stated that without having lived there, obviously they didn't know that intersection quite as well as they did. He remarked that it was a very valid concern, and that Panda did try when they moved into a location, to look at the traffic. He mentioned that Panda typically did not have quite as much traffic as a Starbucks or a Chick-fil-A. He stated that they would like to but it was typically a little bit lower for a restaurant. He added that he could see where the right turn lane coming in might need to be definitely looked at again because that might definitely help create that little the sell lane, so that way people could more safely turn right into the property. He stated that the reason they did not show it originally was that Starbucks, when they went in, a lot of that grass space was their water quality and retention space, so by putting that in they would have to then figure out how to basically mitigate what they took away to put in that decel lane. He mentioned that it was also a concern there because there wasn't a lot of opportunity to do that. He said that they tried to put in some water quality and to meet the requirements and looking at that plan that they could actually put a little bit more in, but he could definitely see where traffic was definitely a concern. He stated that they did learn literally just the other day that once Panda potentially took those properties and consolidated them, they would potentially be the one who actually owned that easement and could potentially remove it and that that might be an opportunity there.

Chairman Smolik stated that he had mentioned that eventually the three parcels were going to be consolidated, Panda would own it, then they would create an egress, they would create some type of easement for Starbucks then through their lot.

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Mr. Meador stated that the easement was probably already existing and that would probably stay with the parcels when they were combined. He mentioned that regarding the one on the right that was there, he believed that that easement when it was originally created, that was the one that he mentioned from 1969. He stated that there was some kind of a trucking lot or something to the south and it looked like that actually was the original drive that accessed that lot. He said that on the aerial photo, it showed that the lot to the south, that drive on that that was kind of in between, was actually an access easement that supposedly connected that, but at some point or another they built that wall there and closed it off. He added that in looking through the documents, just a few days ago they discovered that Panda, once the lots were consolidated, would potentially be the owner of that, which would give them some rights to be able to do something about that.

Chairman Smolik stated that the applicant mentioned there was some preliminary discussion with Starbucks and that Starbucks felt like they were okay with the way the traffic was, which was sort of alarming considering, he had seen that intersection himself. He stated that one would think though that they would be a willing partner to try and help them out as well because it was not only the applicant's parcel but the Commission had to look at the whole entire thing and had to look at the Starbucks parcel and then also assuming down the road that that strip mall was going to be ready for redevelopment as well. He stated that they would have all of those parcels interchanging and they had to look at how all that functioned. He asked how the applicant wanted the Commission to proceed and if they wanted to go back and look at some of the traffic issues or if they wanted the Commission to look for a vote.

Mr. Meador stated that he thought what Panda would want was for them to go ahead and have a vote on it. He stated that they understood that there were some potential traffic issues and if that was a condition to look at that, then he thought they would definitely take a closer look and would definitely work on that.

Chairman Smolik stated that the Commission was a recommending body and that they would vote and then whatever their recommendation was, Council would need two thirds vote to override it.

Director Lieber stated that if the project were not to be recommended, that the applicant would have to refile a new application

Chairman Smolik asked if that was okay with the applicant.

Mr. Meador stated that based on his discussions with Panda, he thought that they would want to have the vote that day.

Chairman Smolik asked based on what was provided that night.

Mr. Meador stated that was correct.

James Martynowski, Osborne Capital Group, 7670 Tyler Blvd, Mentor, OH 44060.

Mr. Martynowski stated that he was with Osborne Capital, and they were the property owners actually where Starbucks was and that location as well. He stated he did want to bring up that regarding the proposed car wash, there was an existing recorded easement between all three parcels, which he believed came in for approvals but were not going forward at that time. He explained that there was an

easement recorded with access between all parcels. He mentioned that there was the ability and the requirement when the car wash was built to have access to those parcels so that somebody could make a right off of Lorain Road and go through two entrances and it would relieve some of that traffic that was coming off of Cook Road when that got developed and that was in place and was a recorded easement between the parcels that were there. He stated that he believed it was brought to the City for approval.

Director Lieber stated that that was correct and that they had received an extension but she was also aware that the property was for sale and that the development was not assured at that point.

Mr. Martynowski stated that it wasn't, but there was a recorded easement that required them or whoever built on it, to have cross easement access through those parcels. He mentioned that regarding the other easement they were discussing, the older one that was on the right side of Panda, the east side of Panda, he believed that there was a 30 or 40 foot easement that was created in 1969 and that was to the benefit of the property as he mentioned behind there, which was the existing truck parking or whatever, but they had the easements to their benefit for ingress and egress. He said that they didn't use it currently, but it was there and in order to do anything with that, they would have to go back to them. He mentioned that they talked about a right turn decel in front of Starbucks and asked if that was what was talked about.

Director Lieber stated that it was a recommendation of the applicant's study, but they really didn't have the ability to have that conversation with the City's traffic people and the Panda traffic people. She added that Panda wanted to move forward that night rather than have that discussion.

Mr. Martynowski stated that the existing retention was actually further back. He said that it was right in front of the Starbucks parking stalls on the Starbucks parcel, that area out front. He discussed that in looking at the overall was basically a large front right of way when Cook Road used to be at a different angle and then it was bent and twisted to line up with Lear Nagle. He stated that the large green area on the slide, that a lot of that was actual right of way for the City. He discussed that there could be something done as far as if a right decel lane needed to be done and he didn't think it would affect the retention area.

Chairman Smolik asked if there were any further questions or comments from the Commission.

None were given.

Chairman Smolik commented that as a point of order, a motion in affirmative did not mean they had to vote in the affirmative, but that it just meant that they got a motion out on the table.

Moved by Smolik and seconded by Toth to approve the application.

A roll call vote was taken and the motion failed.

Yes – 0 No – 4

ADJOURNMENT:

Chairman Smolik adjourned the meeting at 7:56 PM.

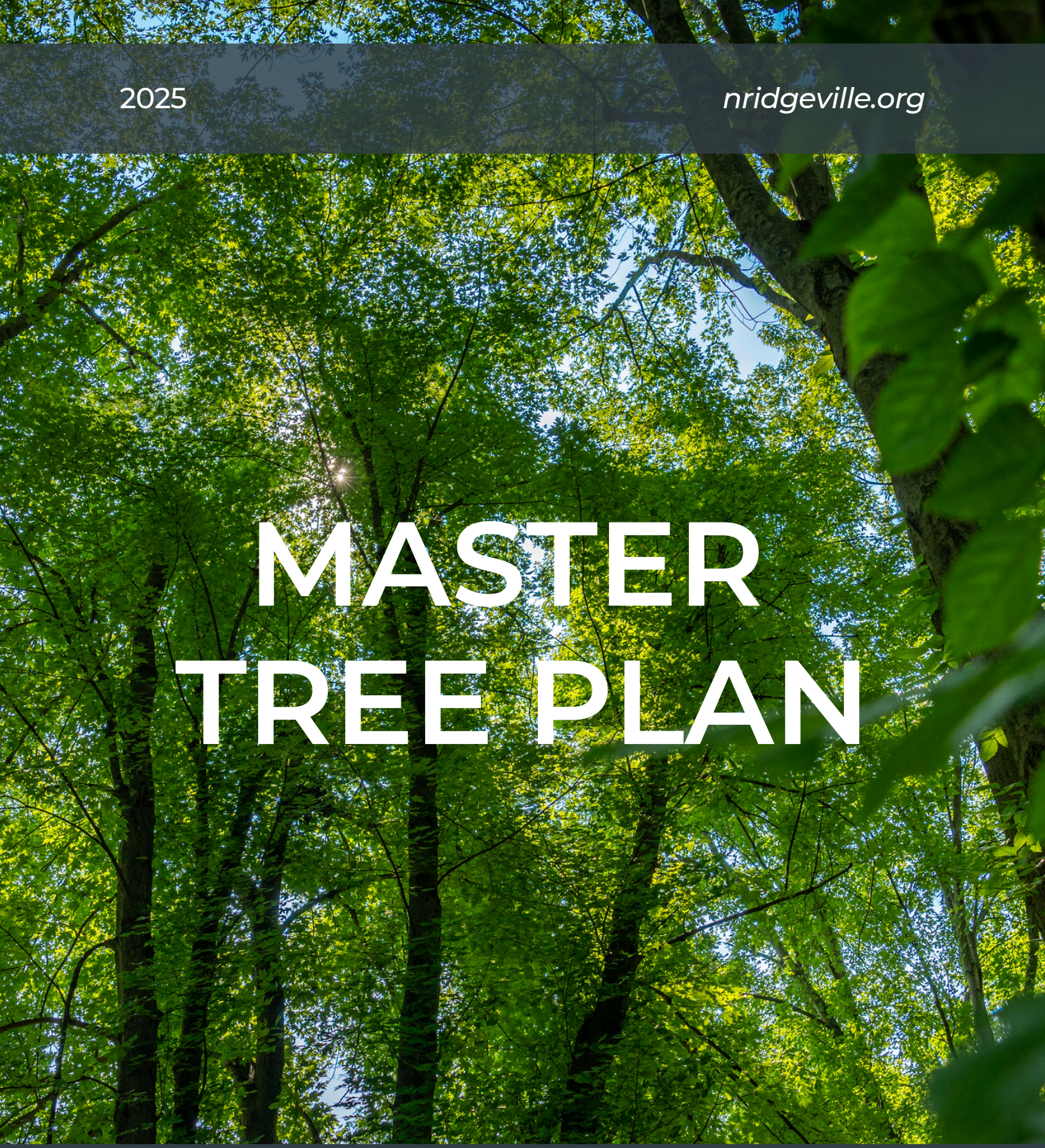
DRAFT

James Smolik
Chairman

Tina Wieber
Deputy Clerk of Council

Tuesday, May 13, 2025
Date Approved

DRAFT



MASTER TREE PLAN

CITY OF NORTH Ridgeville EST 1810

Guiding the strategic planting, preservation and management of trees in our city to enhance sustainability, resilience and quality of life

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North Ridgeville Assessment
North Ridgeville Urban Forest and Park-Specific Plans
Best Practices Documents

- Tree Quality Cue Card
- Proper Planting Instructions
- ODNR Planting Design
- Ideal Structure Cue Card
- Properly Mulched Landscapes
- Tree Protection Zone

Acknowledgements

Staff:

Ryan Thomas, City Arborist
Jon Montgomery, Director of Public Works
Kim Lieber, Director of Planning and Development
Christina Eavenson, City Engineer

Elected Officials:

Mayor Kevin Corcoran
Council President Jason Jacobs
Council Member At-Large Georgia Awig
Council Member At-Large Martin E. DeVries
Ward 1 Council Member Holly A. Swenk
Ward 2 Council Member Eric Shaffer
Ward 3 Council Member Bruce F. Abens
Ward 4 Council Member Clifford Winkel

INTRODUCTION

Street trees, as well as trees in the City's parks and other public places, help to make North Ridgeville a desirable place to live, work and visit.

The many benefits of trees that were once considered qualitative and subjective are now being scientifically quantified. The environmental benefits trees provide, such as producing oxygen and removing air pollutants, may be the most obvious. Trees can also reduce air temperatures and consequently affect air quality, since the emissions of many pollutants are temperature-dependent. Planted in the right location around buildings, trees can reduce heating and cooling energy costs. Tree canopy can also reduce storm water runoff and contribute to substantial savings in the long-term construction costs for storm water facilities. The reduction in storm water volume can help improve water quality by reducing pollutant runoff. Street trees contribute valuable wildlife habitat as well.

Trees can also be a stimulus to economic development, attracting new business and tourism. Commercial retail areas are more attractive to shoppers, apartments rent more quickly, tenants stay longer, and space in a wooded setting is more valuable to sell or rent, according to research by the National Arbor Day Foundation. For those selling their homes, healthy, mature trees can also add a property's value.

KEY CHALLENGES

The City of North Ridgeville has numerous tree-lined streets and wooded areas, in both public and private ownership. The City and its residents value the many environmental and economic benefits that trees provide. Yet as a city experiencing a rapid pace of growth in recent years, North Ridgeville faces a difficult challenge to maintain its existing tree cover and an even greater challenge to increase it. Some of the greatest challenges are described below.

DEVELOPMENT AND GROWTH PRESSURES
Development and other pressures are negatively affecting the health and longevity of the City's trees and limiting the areas in which trees can be planted. In addition to commercial and industrial projects, the significant expansion of single-family homes has resulted in the loss of trees and less space for planting new ones. Required trees are not encouraged to be planted in tree lawns due to concern with above-ground and below-ground utilities. When the required trees are planted on private property, the streetscape is negatively impacted and the City loses the ability to ensure proper care and maintenance.

CURRENT RESOURCES

Current resources and funding limit the ability of the City Arborist to provide for little more than the basic needs of the City's trees. Most staff time is spent responding to requests for service and reacting to problems or complaints of dangerous trees. Only minimum amounts of time and resources are dedicated to proactive activities designed to enhance the urban forest. Currently the City does not have a tree inventory or other tools and data needed to effectively manage the City's urban forest. There are no resources available to quantify or monitor the extent and the health of the City's tree cover. In the planting and care of trees, staff focuses almost exclusively on parks or city properties rather than street trees.

PRIVATE PROPERTY

Although there are many needs on public property, most of the City's trees are under private control, not subject to local regulations, and therefore vulnerable to inadequate management, injury and tree removal. Homeowners often take great pride in the trees on their properties, but many lack basic knowledge about the benefits of trees, the appropriate trees to plant and how to plant and care for them. Unfortunately, public education about tree maintenance and preservation is virtually nonexistent. Maintaining tree canopy on private property will be a major challenge in the years to come.

RECOMMENDATIONS

Recommendations of the Master Tree Plan are categorized into the following topics:

- Tree Planting
- Tree Care and Maintenance
- Management of the Urban Forest
- Public Education and Outreach

Based on these priority areas, goals and action items were prepared by North Ridgeville city staff. Implementation will require policy, program and budget coordination, as well as long-term and intentional funding.

TREE PLANTING

Goal: Expand the city's tree canopy along public roads, parks and in other public places.

Actions:

- Conduct a tree canopy assessment to establish a baseline measure of North Ridgeville's tree canopy coverage, which can be used to inform future policy decisions and canopy coverage goals.
- Create and maintain a comprehensive list of street trees to be recommended in future plantings including an approved tree list. Revise the list of recommended street trees every five years to reflect the successes and failures of the existing street tree population.
- Ensure a balance between tree-lined streets and safe utility and transportation corridors. Review and update regulations, as needed to ensure trees to not conflict with standards for sight distance triangles and traffic sign placement, as well as either underground or overhead utilities.
- Coordinate street tree design and selection in the development review process.
- Provide and encourage effective coordination and compliance with applicable design and development standards for each type of land use or street type associated with the establishment and maintenance of public trees.
- Consider creating a memorial tree program or similar initiative that engages the public while encouraging tree planting in public places.

TREE CARE AND MAINTENANCE

Goal: Shift from a reactive, hazard-based maintenance program to a proactive, cyclic maintenance program.

Actions:

- Conduct a comprehensive tree inventory to include all street trees. Complete identification, measurement and comprehensive health assessment of all city owned trees for the city's GIS database. Continuously update inventory to develop work history of the city's trees. Use the inventory as the basis for tree-related work scheduling.
- Follow the Best Management Practices (BMPs) for tree care. Review BMPs periodically to ensure they employ the most current industry standards.
- Maintain city street trees on a five-year cycle, in accordance with the city's established maintenance zones.
- Discourage the unnecessary removal of existing healthy trees in the design, construction or reconstruction of street projects, and other property development. Maintain clear criteria for tree removal, and implement practices to retain healthy and safe trees.
- Review construction plans and suggest changes as appropriate to protect the city's trees from construction damage. Monitor construction activity near trees.
- Mitigate hazardous trees by following the tree maintenance and removal guidelines in this plan.
- Explore new methods of repairing sidewalks using alternative materials to provide safe and shady walkways while retaining large, healthy trees.

City Arborist

MANAGEMENT OF THE URBAN FOREST

Goal: Pursue the resources necessary to effectively manage the urban forest.

Actions:

- Create and maintain a public tree inventory to collect data on planting, removal and maintenance activities. The inventory should include street trees and trees planted in other public places.
- Purchase a tablet for field use in collecting data and storing utility information to avoid planting conflicts and tracking contractor work.
- Improve staff knowledge and effectiveness by providing training to employees in arboriculture practices. Ensure necessary equipment is provided for safe and efficient operations.
- Research new funding mechanisms for the expansion and sustainability of the city's street tree program.
- Amend existing City plans and ordinances to accept the provisions of this Plan. Identify current codes and ordinances that require updating. Implement amendments following adoption or updating of this Plan.
- Evaluate budget demands for special projects. Evaluate best funding options, including capabilities of community-based partners, grant availability and comparative costs for private service contracts compared to staff costs.

PUBLIC EDUCATION AND OUTREACH

Goal: Provide community education and awareness, and encourage greater participation in tree planting and stewardship activities.

Actions:

- Promote awareness of the standards in the Master Tree Plan. Distribute Plan to City Council, all City departments, public agencies and private partners. Make the plan available to the general public.
- Meet the requirements to apply for and obtain Tree City USA designation through the Arbor Day Foundation.
- Provide residents with information on proper tree care, including planting, pruning and mulching techniques, through newsletters, social media, mailings and the city website.
- Seek opportunities to engage with the public on the topic of tree planting, care and maintenance. The City Arborist should develop materials to present to HOAs and community organizations, and can collaborate in Parks and Recreation and Senior Center programming.

PLANTING GUIDELINES

Tree planting is a major component of any city tree program. Tree species and planting location requirements are important because of the long-term impact these decisions hold. It is critical to develop an overall planting strategy, initially concentrating on areas with the greatest need for improvement. With a small amount of planning, healthy trees with greater life expectancies can be established with minimal initial investment and minor maintenance costs.

PLANTING STRATEGY

Immediately replanting trees, after dead and hazardous tree removal is considered replacement planting and is a top short-term priority. A second short-term goal is restorative planting - to fill in all immediately available plantable spots identified in this plan as funding becomes available. Areas with the greatest need for improvement and insufficient canopy coverage should be a restorative planting priority.

Once replacement and restorative plantings are completed, the City may actively search for and create additional locations for tree placement. Ideally, new tree planting in any year should exceed tree removals by a ratio of (1.5:1), and at minimum, removals and new plantings should be equal in number.

TREE SPECIES DIVERSITY

Tree species diversity in new plantings should be a primary concern. The dangers (such as disease and insect infestation) of planting monocultures have proven to be devastating throughout the United States. The goal should be to maintain species diversity throughout the city such that no one species represents more than 5%, and that no one genus comprises more than 20% of the total population. The variety of trees available and suitable for planting in the environment far exceeds what is commonly seen in developed areas. The tendency is to only plant what is immediately available from nurseries. Yet with advanced notification, several nurseries would be willing to grow many of the less commonly produced trees. Of course, such advanced planning is not always possible, so, planting palettes should incorporate both commonly available tree species and those less commonly available.

Once a popular street tree, the Callery Pear was designated by the State of Ohio as an invasive plant in 2023.

A goal of this Plan is to establish representatives of all species. To ensure this:

- A tree nursery order may be prepared in the year prior to planting, when possible.
- At least 10 trees of each species or cultivar maybe planted along North Ridgeville's streets and monitored yearly for their success.
- Experimental species may be tested in neighborhood locations throughout the city in sites appropriate to the species.

TREE SPECIES

In addition to considering site characteristics for proper planting, species-specific features should be scrutinized. A major consideration for street trees is the amount of litter dropped by mature trees. Species such as willow (Salix spp.) have weak wood and typically drop many small branches during a growing season. Others, such as American sweetgum (Liquidambar styraciflua) drop high volumes of fruits. In certain species, such as Maidenhair (Ginkgo biloba) and Osage-orange (Maclura pomifera), female trees produce offensive or large fruit; male trees, however, produce no fruit. Furthermore, a few species of trees, including Hawthorn (Crataegus spp.), may have substantial thorns. These species should be avoided in high-traffic areas.

Seasonal color should also be considered when planning tree plantings. Flowering varieties are particularly welcome in the spring, and deciduous trees that display bright colors in autumn can add a great deal of interest to surrounding landscapes.

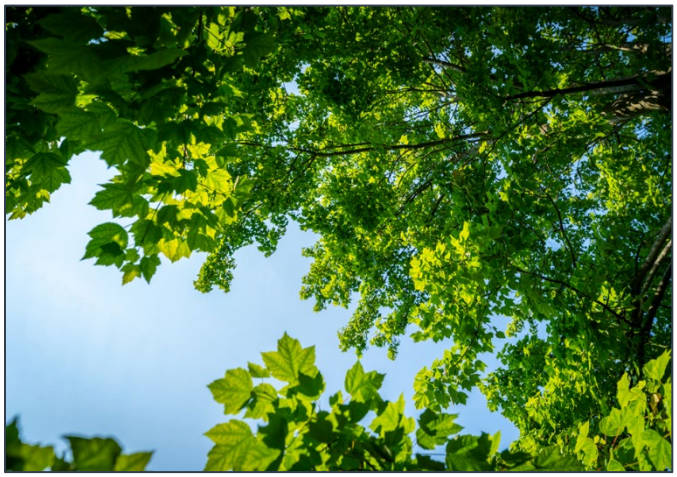
Above all, tree species should be selected for their durability and low-maintenance characteristics. These attributes are highly dependent on-site features as well as species characteristics. Matching a species to its favored climatic and soil conditions is the most important task when planning for a low-maintenance landscape, because plants that are well-matched to their environmental and site conditions are more likely to resist pathogens and insect pests, therefore requiring less maintenance overall.

Although diversity is important in a street tree population, a single-species planting of the same age provides aesthetic unity to a neighborhood or street. A goal of this Plan is to establish uniform plantings of large trees along identified major streets, while recommending a diverse mixture of species within neighborhood streets.

PLANTING PATTERNS

In situations where entire streets are planted at once, there exists the opportunity for implementing tree planting patterns. Several schemes are possible, but an alternating planting pattern of two or three species is generally the most effective and practical pattern. Where alternative species are proposed, trees should be alternated whenever possible. In locations where several planting sites exist in a row, it is preferable that trees be used with equal frequency with a minimum ratio of 1:3. If possible, a maximum of four instances of the same species should be used consecutively before changing to an alternate species.

VISUAL CHARACTERISTICS



Trees are design elements, with each tree bearing its own inherent visual characteristics. These include form, natural color and texture as well as seasonal changes such as fall color and spring flowers. Some trees are bright and lively, such as a sugar maple, while others are statelier, darker and more somber, like many native oaks.

Deciduous trees provide shade in the summer and then offer sunlight in the winter when they lose their leaves. They give a sense of the seasons and can produce spectacular autumn displays. Evergreen trees maintain their foliage throughout the year, providing year-round screening, greenery, and shelter from winds. An advantage of deciduous trees is that they renew their leaves annually, allowing them to shed foliage that has become affected by disease and pollution. Where appropriate, deciduous trees should be selected to provide solar access to properties on the south-facing, northern side of the street.

PHYSICAL CONSTRAINTS

In addition to the ecological and aesthetic criteria, it is important to consider the constraints of the tree's physical surrounding. The physical limitations of an available planting space are perhaps the most obvious determinants of tree species to be planted. Street trees will typically be planted on a planting strip, but they can also be located in medians, islands and bump-outs.

PLANTING STRIPS
A planting strip, or tree lawn, helps separate pedestrians from traffic lanes. The wider the planting strip the larger a tree can be, and the greater the buffering capacity for pedestrians. When planted in a strip large enough to accommodate the mature growth of the trees, planting strips are the ideal planting location for street trees.

MEDIANS
This planting option is particularly effective at making a very wide street more pedestrian-scaled.

ISLANDS OR BUMP-OUTS
This planting option is often preferred over planting in tree pits in more urban settings when there is adequate space for the islands. This option eliminates the tree grates and their future maintenance, while gaining valuable soil volume for the tree's roots. The problem with this option is that it can impede drainage and it makes it difficult to clean streets with a mechanical street sweeper or snowplow.

INTERIOR PROPERTY

When the curb, sidewalk and other street improvements are already installed, or if the planting strip is too narrow, the only place to plant a street tree is behind the sidewalk. Planted behind the sidewalk, the tree no longer buffers the pedestrians from the traffic lane, and it becomes more difficult to obtain the canopy effect of street trees over the roadway. However, placing the tree behind the sidewalk can potentially make more soil volume available to the roots of the tree.

UTILITY CONFLICTS

Future design of streets that increase landscape and pedestrian areas may lead to opportunities for tree planting in locations other than the existing planting strip, subject to traffic safety and parking considerations. Expanded planting strips enable tree planting away from overhead power lines, thereby reducing the substantial negative impacts of power line and tree interference.

Example of improper tree selection and placement in relationship to overhead utility lines.

The majority of North Ridgeville has overhead power lines, which has a major impact on the performance of the trees. When trees are over pruned the overall form and health of the tree is impacted. New trees under high voltage power lines need to be selected so that their mature height does not encroach on high voltage utility lines or they can be pruned using ANSI 300 standards. Species and cultivars that at mature height do not exceed 25 feet are recommended especially on streets where the width is less than 36 feet.

Tree selection should also take into account the impact on street lighting, as trees can significantly impact the level of lighting—and therefore safety—in the street. The presence of underground services restricts the space available for tree roots, which is a particular consideration when the tree is planted.

DESIGN GUIDELINES

The compositional elements of the developed landscape are buildings, pavement, and introduced plants. Trees serve as landmarks, pinpointing or emphasizing locations. Trees can also reinforce the importance of streets relative to their size and scale; other trees can humanize the scale of parking lots and shopping centers. The question of what trees to plant in this developed landscape becomes an issue of design.

Tree planting situations in North Ridgeville fall into four broad categories: Street trees for primary access roads, street trees for developments and neighborhoods, trees for parking areas

and trees in parks. Each situation has its own design determinants from which criteria for tree selection can be developed.

STREET TREES FOR PRIMARY ACCESS ROADS
The principal design requirements for street trees relate to scale, reinforcement of street unity, and shade. On wide streets, trees should be large in scale so that they will occupy a large volume and balance the scale of the street. Small scaled trees would not make a sufficient visual impact on such a street. Trees placed closely together (25 to 35 feet) also unify the streetscape by giving it reinforced form and character. Each major street might be treated a little differently, but schemes adopted should echo the historic planting character of North Ridgeville, including both mixed and unified plantings.

STREET TREES FOR DEVELOPMENTS AND NEIGHBORHOODS
These spaces are small in scale and are related to the slow pace of walking. Close observation of detail is important in small spaces. Interesting shadow patterns on pavement, seasonal color and sculptural form are desirable elements in tree selection here. Trees should generally be planted closely together, but the apparent size of a small space can be manipulated through varied tree spacing. Trees for these spaces still need to adhere by the height clearance for sidewalks and traffic clearance, and intersection vision should always be considered before planting.

TREES FOR PARKING AREAS
Unshaded parking lots can be characterized as miniature heat islands and sources of motor vehicle pollutants. Tree canopies can cool these hot spots by direct shading of the ground surface and indirectly by the transpiration of water through leaves. Not only do canopy cover provisions reduce pollution and surface temperatures, they also make the lot more inviting, thereby improving the business climate. It is often observed that in hot weather, shaded parking spaces will generally be filled first, even if one must walk further. Generally, North Ridgeville's parking lots are void of large canopy trees.

Modifying North Ridgeville's city ordinance to specify minimum canopy coverage over parking lots would make a dramatic improvement in future parking lots. Provisions to ensure this coverage is maintained should also be included.

Trees for parking areas fall into three basic use categories: trees for shade, definition and screening.

- Shade trees should have a rounded, high-branched form and grow relatively quickly to cast a broad shadow. Low-branching, conical trees, particularly conifers, should be avoided in the active parking area.
- Definition, or delineator, trees are used to guide traffic, highlight entrances, terminate vistas, and indicate ends of parking bays. As such, they should be taller and more erect (pyramidal or ovoid forms) than the shade trees used.
- Screening trees may be smaller in size than shade or delineator trees. Both round and erect forms are appropriate. Low branching is important if sufficient planting space is available. Evergreen trees afford year-round screening; however, higher branching trees can be effectively used if they are combined with low shrubs.

TREES IN PARKS

The preservation of current trees and planting of new trees in our parks should be a priority. Parks are emerging as important public health solutions in developed communities. Nearly 40 years of research evidence confirms that nearby nature, including parks, gardens, the urban forest and green spaces, support human health and wellness. The research about active living and opportunities to avoid chronic diseases (such as diabetes, heart disease and respiratory problems) is particularly relevant to large parks where people can enjoy walking and bike paths, and playing fields. But, equally as important is the role of small parks and nature spaces for health.

South Central Park

RECOMMENDED TREES

After Dutch Elm Disease laid waste to the urban forest in the 1970s, cities and homeowners made the mistake of eagerly planting a very limited number of tree species. They filled our neighborhoods with the fastest growing trees they could find – silver maple (Acer saccharum) and green ash (Fraxinus Pennsylvania) were the two most popular. The ash was such a popular tree that some nurseries tree stock included over 40% ash trees. Many developments were over 30-40% ash trees. This laid the foundation for the devastating effect Emerald Ash Borer would have. Cities now advocate for new plantings to follow the 30/20/10 rule. The goal is for the local tree canopy to not include more than 30% of any give plant family, 20% of any given plant species and not more than 10% of any variety.

Common tree families include Rosaceae–the Rose Family (crab apple, serviceberry, mountain ash, fruit trees), Aceraceae (maples), Quercus (oaks), Gleditsia (honey locust). Unfortunately, the mistakes of the past are being repeated. The number of crabapple and pear trees and Silver Maples in North Ridgeville is vast. The city should require trees from less represented plant families and genera when possible. Trees in the pea family are good (Amur maackia, red bud, Kentucky coffee). But how about the Adoxeae family (Nannyberry viburnum) or Rosaceae (wafer ash) or Sapindaceae (buckeye)? Focusing on diversity when selecting trees is important to the Urban Forest.

The following is a list of recommended plantings, subject to change.

- **JAPANESE ZELKOVA: ZELKOVA SERRATA**
- **LITTLE LEAF LINDEN: TILIA CORDATA**
- **BLAD CYPRESS “SHAWNEE BRAVE”**
- **EUROPEAN HORNBEAM CARPINUS BETULUS “FASTIGIATA”**
- **MAPLE: ACER CAMPESTRE “QUEEN ELIZABETH” HEDGE MAPLE, ARMSTRONG MAPLE**
- **LOCUST: GLEDITSIA TRICANTHOS VAR. INERMIS “SHADEMASTER THORNLESS HONEY LOCUST**
- **CHINESE ELM: ULMUS PARVIFOLIA “DRAKE”**
- **OAK: QUERCUS STELLATA: POST OAK, MAPROCARPA: BUR OAK**
- **AMUR MAACKIA: MAACKIA AMURENSIS**
- **GINGKO: CHASE MANHATTAN, GOLDSPIRE**
- **RED BUD: EASTERN REDBUD, ALBA, FOREST PANSY, WHITE BUD**
- **DOG WOOD: COMUS KOUSA ‘KOUSA’, CUYOHOGA GREY**

Little Leaf Linden

PROHIBITED PLANTS

In order to protect native plant species and thwart the growth of invasive plant species, the Ohio Department of Agriculture has declared the plants listed below as invasive plants. As such, these plants are prohibited and shall not be approved for planting in North Ridgeville.

1. *Ailanthus altissima,* tree of heaven
2. *Alliaria petiolata,* garlic mustard
3. *Ampelopsis brevipedunculata,* porcelainberry
4. *Azolla pinnata,* Pinnate mosquitofern
5. *Berberis vulgaris,* common barberry
6. *Butomus umbellatus,* flowering rush
7. *Celastrus orbiculatus,* Asian bittersweet
8. *Centaurea stoebe ssp. micranthos,* spotted knapweed
9. *Dipsacus fullonum,* common teasel
10. *Dipsacus laciniatus,* cutleaf teasel
11. *Egeria densa,* Brazilian waterweed
12. *Eichhornia azurea,* anchored water hyacinth
13. *Elaeagnus angustifolia,* Russian olive
14. *Elaeagnus umbellata,* autumn olive
15. *Epilobium hirsutum;* hairy willowherb
16. *Fallopia japonica,* Japanese knotweed
17. *Ficaria verna,* lesser celandine
18. *Heracleum mantegazzianum,* giant hogweed
19. *Hesperis matronlis,* dames rocket
20. *Hydrilla verticillata,* hydrilla
21. *Hydrocharis morsus-ranae,* European frogbit
22. *Hygrophila polysperma,* Indian swampweed
23. *Iris pseudacorus,* yellow flag iris
24. *Lagarosiphon major,* African oxygen weed
25. *Ligustrum vulgare,* common privet
26. *Limnophila sessiliflora,* Asian marshweed
27. *Lonicera japonica,* Japanese honeysuckle
28. *Lonicera maackii,* Amur honeysuckle
29. *Lonicera morrowii,* Morrow's honeysuckle
30. *Lonicera tatarica,* Tatarian honeysuckle
31. *Lythrum salicaria,* purple loosestrife
32. *Lythrum virgatum,* European wand loosestrife
33. *Marsilea guadrifolia,* European water-clover
34. *Microstegium vimineum,* Japanese stiltgrass
35. *Monochoria hastata,* arrowleaf false pickerelweed
36. *Monochoria vaginalis,* heartshape false pickerelweed
37. *Morus alba,* white mulberry
38. *Myriophyllum aquaticum,* parrot feather watermilfoil
39. *Myriophyllum spicatum,* Eurasian watermilfoil
40. *Najas minor,* brittle waternymph

41. *Nymphoides peltata,* yellow floating heart
42. *Ottelia alismoides,* duck lettuce
43. *Paulownia tomentosa,* princess tree
44. *Persicaria perfoliata,* mile-a-minute
45. *Phalaris arundinacea,* reed canary grass
46. *Phragmites australis ssp. australis,* common reed
47. *Pistia stratiotes,* water lettuce
48. *Potamogeton crispus,* curly pondweed
49. *Pueraria montana var. lobata,* kudzu
50. *Pyrus calleryana,* Callery pear
51. *Rhamnus cathartica,* European buckthorn
52. *Rosa multiflora,* multiflora rose
53. *Sagittaria sagittifolia,* arrowhead
54. *Salix fragilis,* crack willow
55. *Salvinia minima,* common salvinia
56. *Salvinia molesta,* giant salvinia
57. *Sparganium erectum,* simple bur-reed
58. *Stratiotes aloides,* water soldier
59. *Trapa natans,* water chestnut
60. *Typha angustifolia,* narrowleaf cattail
61. *Typha x glauca,* hybrid cattail
62. *Ulmus pumila,* Siberian elm
63. *Vincetoxicum nigrum,* black swallowwort

GLOSSARY

When the following words and phrases are used in this plan, they shall have the following meanings unless a different meaning is clearly required by the context:

Associated Vegetation shall mean native or non-native shrubs and ground covers within city parks, rights-of-ways and open spaces.

City shall mean the government of North Ridgeville.

City Arborist shall mean the City employee who is a current certified arborist by the International Society of Arboriculture and is responsible for administering and enforcing the provisions of this chapter.

High Risk Tree shall mean any public tree rated as such by the City Arborist according to the tree risk evaluation standards established by the International Society of Arboriculture.

Maintain or Maintenance shall mean the entire care of trees within City rights-of-ways and open spaces, as well as the preparation of ground, fertilizing, mulching, planting, disease and insect control, trimming, pruning, staking, root control, watering, leaf litter, weed removal and removal of dead and dying trees.

Master Tree Plan shall mean a document adopted by North Ridgeville that presents tree inventories, maintenance recommendations, recommended approved tree lists, a master design plan for street tree plantings and urban forestry program goals.

City Trees shall mean all trees and woody plants within public rights-of-ways.

Planting shall mean to install public trees permanently in the ground.

Planting Strip shall mean the area available for planting including the street curbs, the edge of the traveled portion of roadway and the property line.

Property Owner shall mean the person owning such property as shown by the records of the Auditor's Office of Lorain County, Ohio.

Pruning shall mean cutting or removing any part of the branching structure of a plant in either the crown, trunk and/or root areas.

Removal shall mean removal of a tree within City rights-of-way and open spaces.

North Ridgeville Canopy Cover

Green = High Canopy Density, Low Planting Priority
Red = Low Canopy Coverage, High Planting Priority
Yellow = Medium Canopy Coverage, Medium Planting Priority

OurTrees Benefits

Trees in North Ridgeville, OH

Serving Size:
24.56% tree canopy on 3,684 acres
17.01% impervious surfaces over 2,552 acres
Total benefits for this year:$1,280,085

Annual values:

Carbon Dioxide Uptake$418,180

Carbon Sequestered
2,452 tn

CO_2 Equivalent[1]
8,990 tn

Storm Water Mitigation$376,119

Runoff Avoided
42 MG/yr

Rainfall Intercepted
298 MG/yr

Air Pollution Removal$485,786

Carbon Monoxide
2,266 lb/yr

Ozone
166,134 lb/yr

Nitrogen Dioxide
11,132 lb/yr

Sulfur Dioxide
7,036 lb/yr

$PM_{2.5}$
8,459 lb/yr

Values are totals to date:

Carbon Dioxide Uptake$29,379,720

OurTrees Scorecard

Tree Canopy in North Ridgeville, OH

Room for Trees:

- Existing canopy: 3,684 acres
- Plantable space: 8,854 acres

A 10% increase in canopy area, 3,684 acres to 4,053 acres, would add $86,191 in tree benefits to your community.

This increase would include the storage of an additional 17,226 tons of carbon, 4,209,027 more gallons of avoided storm water runoff, and the removal of an extra 22,374 pounds of air pollution.

Canopy comparison against nearby census places:

1. Avon: 29.55%
2. Elyria: 21.68%
3. **North Ridgeville: 24.56%**
4. Sheffield: 43.92%
5. Eaton Estates: 33.48%
6. Olmsted Falls: 45.38%
7. Lorain: 21.81%
8. Grafton: 16.73%
9. North Olmsted: 41.71%
10. Westlake: 40.82%

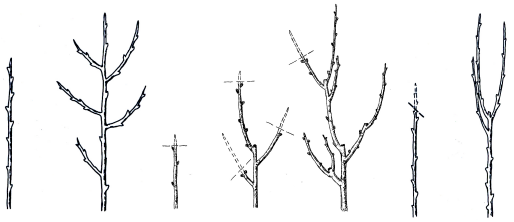
Benefit estimates are based on USDA Forest Service research and are meant for guidance only. Visit www.itreetools.org to learn more. Get even more information at i-Tree Landscape!

OurTrees 1.11.0
Powered by i-Tree Landscape

Tree Quality Cue Card

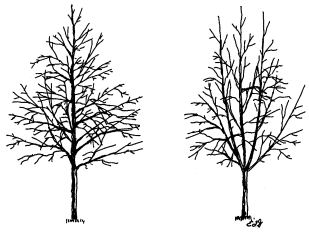
Shade trees that grow to be large should have one relatively straight central leader. Heading the tree is acceptable provided the central leader is retrained.

Desirable Desirable Not desirable



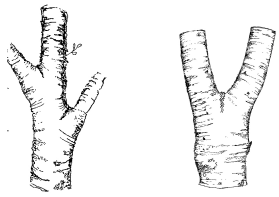
Main branches should be well distributed along the central leader, not clustered together. They should form a balanced crown appropriate for the cultivar or species.

Desirable Not desirable



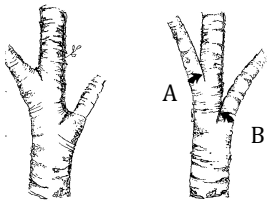
The diameter of branches that grow from the central leader, or trunk, should be no larger than two-thirds (one-half is preferred) the diameter of the trunk measured just above the branch.

Desirable Not desirable



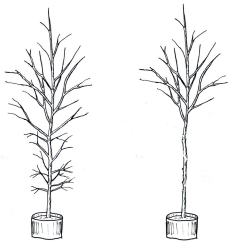
The largest branches should be free of bark that extends into the branch union, known as included bark (see A and B).

Desirable Not desirable



Temporary branches particularly on trees less than 1 inch caliper should be present along the lower trunk below the lowest main branch. These branches should be no larger than 3/8 inch in diameter.

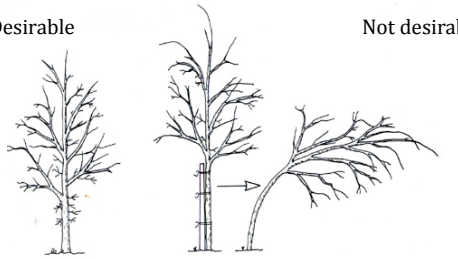
Desirable Not desirable



The trunk should be free of wounds, sunburned areas, conks (fungal fruiting bodies), wood cracks, bleeding areas, signs of boring insects, cankers, or lesions. Properly made recent pruning cuts are acceptable.

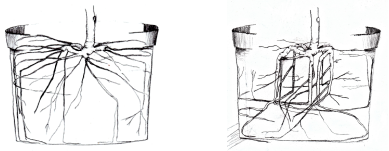
The trunk caliper (thickness) and taper should be sufficient so that the tree remains vertical without a stake.

Desirable Not desirable



The root collar (the uppermost roots) should be within the upper 2 inches of the soil media (substrate). The root collar and the inside portion of the root ball should be free of defects, including circling, kinked, and stem girdling roots. You may need to remove soil near the root collar to inspect for root defects.

Desirable Not desirable



The tree should be well rooted in the soil media. Roots should be uniformly distributed throughout the container. The tree's structure and growth should be appropriate for the species or cultivar. When the container is removed, the root ball should remain intact. When the trunk is lifted, both the trunk and root system should move as one.

The root ball should be moist throughout at the time of inspection and delivery. The roots should show no signs of excess soil moisture as indicated by poor root growth, root discoloration, distortion, death, or foul odor. The crown should show no signs of moisture stress as indicated by wilted, shriveled, or dead leaves or branch dieback.

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Planting Guidelines

General: Trees must be a minimum of 2” caliper and follow ANSI A300 standards.

2.1 Balled & Burlapped Trees:

- Remove excess soil, twine, and at least 3/4 of burlap from root collar.
- Dig hole 2-3 times wider than root ball.
- Remove wire basket before planting; ensure root collar is at or within 2” above grade.

2.2 Containerized/Grow Bag Trees:

- Expose root collar; dig hole at least 3x wider than root ball.
- Address encircling roots before placing tree.

2.3 Bare Root Trees:

- Dig hole 2x wider than root ball.
- Spread roots over soil mound; ensure tree is straight.

2.4 Finishing:

- Prune girdling roots; keep tree upright.
- Backfill with unamended soil; use compost if soil is compacted.
- Mulch ring circumference of drip line; Mulch 2-4” deep, leaving 3” around trunk mulch-free.
- Water 5 gallons per caliper inch + 5 gallons.

3.0 Staking Trees

- Use only for excessive winds or unstable trees.
- Tree straps recommended; remove after 6 months.

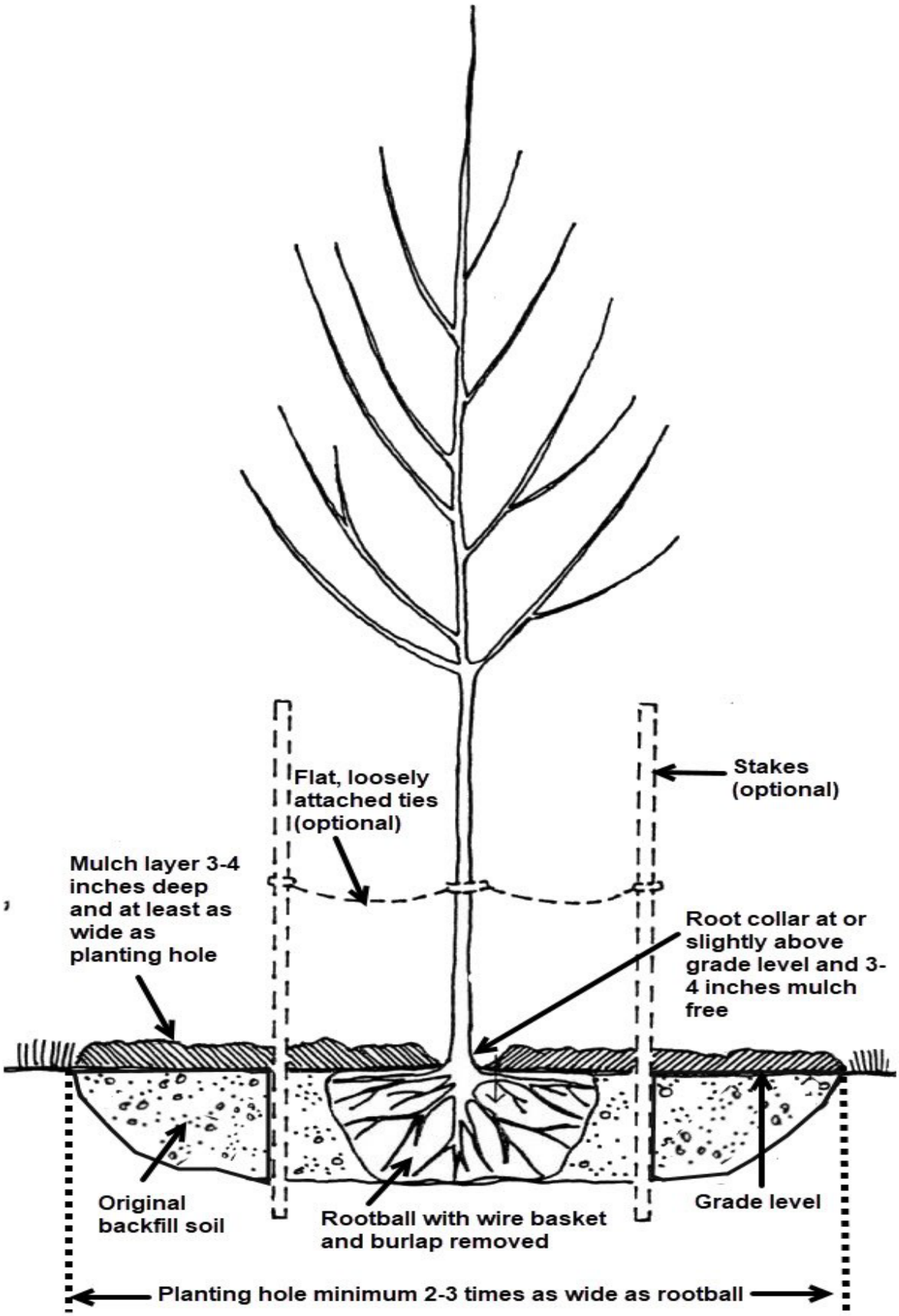
4.0 Planting on Slopes

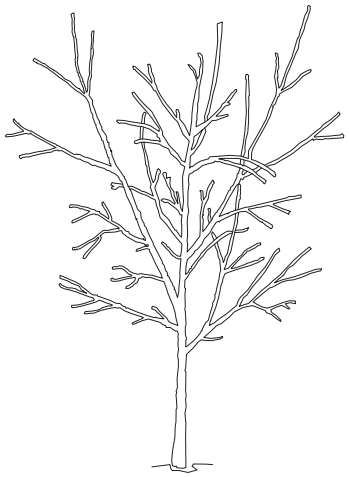
- Position root collar uphill at or within 2” above grade.
- Use excavated soil to cover exposed root ball.

5.0 Planting Aftercare

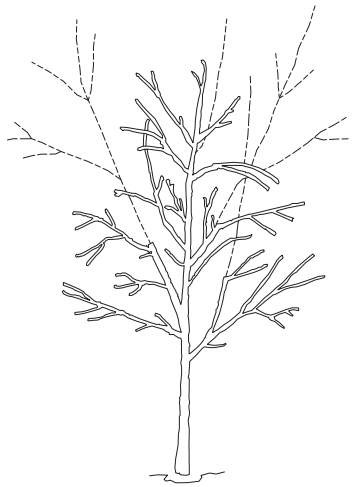
5.1 Watering:

- Weekly from April 1 – October 31 (adjust for weather).
- Deep soak at mulch ring; avoid trunk/leaves.

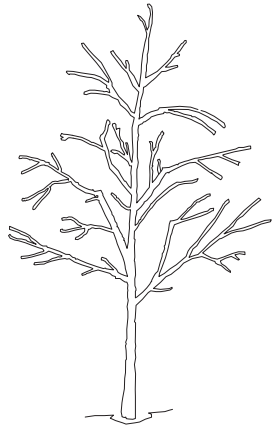

Flat, loosely attached ties (optional)
Stakes (optional)
Mulch layer 3-4 inches deep and at least as wide as planting hole
Root collar at or slightly above grade level and 3-4 inches mulch free
Original backfill soil
Rootball with wire basket and burlap removed
Grade level
Planting hole minimum 2-3 times as wide as rootball



Before planting, tree has three codominant stems. The two that compete with the one in the center should be pruned to supress their growth.



Two competing stems were reduced substantially, in this case remvoing about 70% of their foilage using reduction cuts.



After pruning, tree has only one dominant stem.

Notes:
1- All trees shown are rejectable unless they undergo recommended treatment.
2- Tree shall meet crown observation detail following correction.

S-X

CROWN CORRECTION DETAIL

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Properly Mulched Landscapes

Properly mulched landscapes offer many benefits, such as maintaining soil moisture, controlling weeds, insulates from severe weather, reduces damage from lawn equipment, aerates soil and provides beds with a uniform, well-cared for appearance.

Excessive mulch can lead to moisture in the root zone causing root rot and stress. Piling mulch against the trunk leads to insect, rodent and disease infestations, which result in trunk girdling. Certain types of mulch alter soil PH levels. And, mulch that becomes too deep or matted will become anaerobic (sour); emitting pungent odors and allowing organic acids to build up in the soil (toxic to young plants).

Before obtaining mulch, calculate the correct quantity needed by following the guidelines below:

For a Square or Rectangular Area

Measure the area to determine the square footage by multiplying the length by the width. For example, an area that is 30 feet long and 20 feet wide (30x20) will be 600 square feet (sq.ft.).

Next, multiply 600 sq. ft. by the anticipated depth of the mulch layer. If the depth is to be 2" deep, the calculation would be 600 x 2 which equals 1,200 sq. ft. Convert 1,200 sq. ft. to cubic yards 9 by dividing by 324 (the number of square feet in a cubic yard). Thus, 1,200 divided by 324 equals 3.7037037, or rounded up results in 4 cubic yards.

For a Triangular Area

Obtain the square footage of a triangular area, which has one short side and two longer sides. Multiply the base (short side) by the height (the longer of the two other sides), then divide by 2. Thus, if the triangle's base is 9 feet wide and the sides are 12 and 15 feet long, multiply 9 by 15, which is 135. Divide 135 by 2, which equals 67.5 sq. ft.

Next, multiply 67.5 by the anticipated depth of the mulch layer; say 3". Which is 202.5 sq. ft. Convert 202.5 sq. ft. to cubic yards by dividing by 324, which is .623 (point 623) cubic yards.

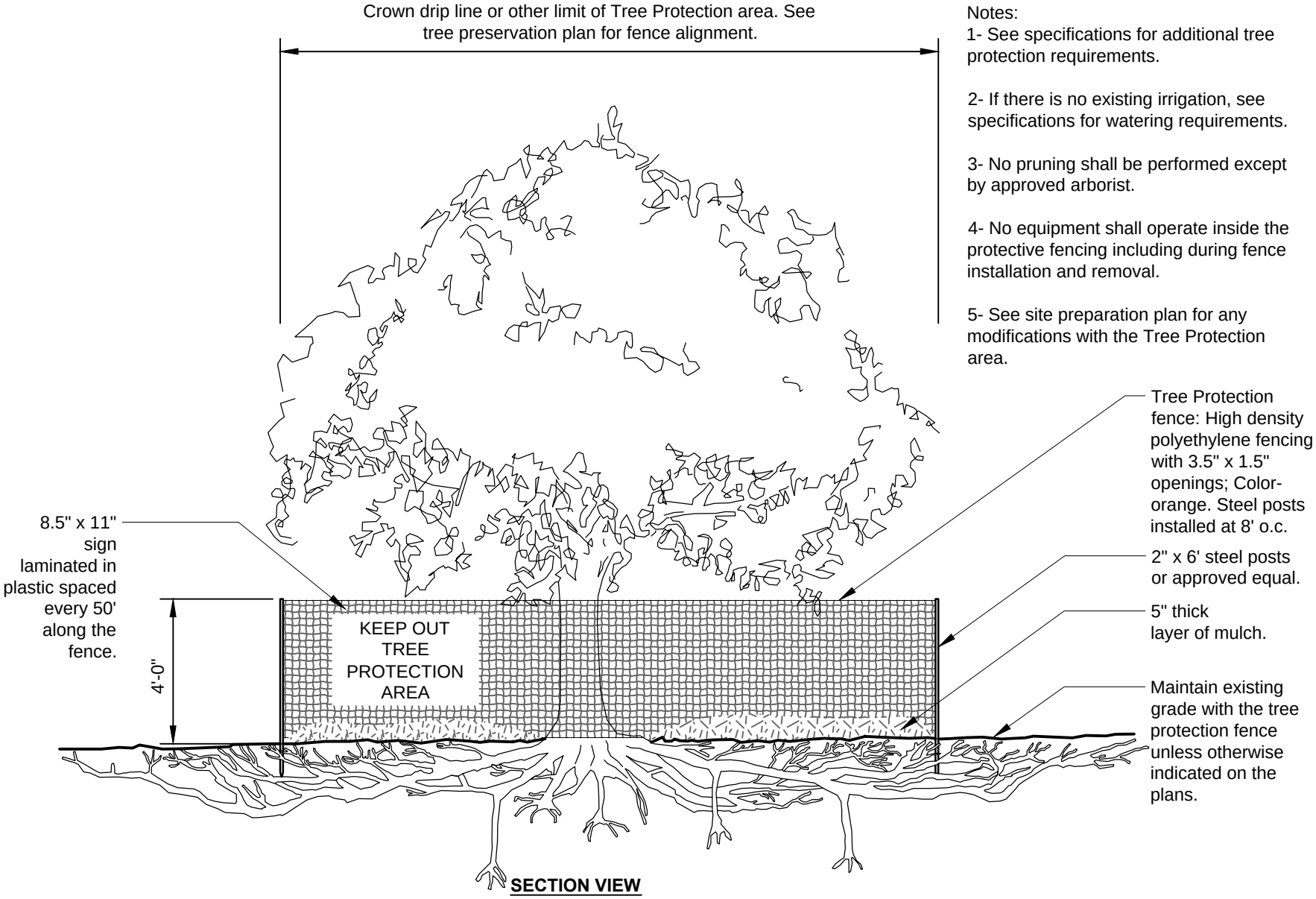
For a Circular Area

Determine the square footage by measuring from the center of the circle to the outside of the circle to get the radius and then multiply the radius by itself. For example, if the circle's radius is 9, multiply 9 by 9 to get 81. Now multiply 81 by pi (3.14), which equals 254.34 sq. ft.

Next, multiply 254.34 by the anticipated depth of the mulch layer; say 4". Which equals 1,017.36 sq. ft. Convert 1,017.26 sq. ft. to cubic yards by dividing by 324; which is 3.14 cubic yards.

https://www.landscapecalculator.com/calculators/mulch

Submitted by: Ryan Thomas, City Arborist, North Ridgeville



SECTION VIEW

Notes:
1- See specifications for additional tree protection requirements.

2- If there is no existing irrigation, see specifications for watering requirements.

3- No pruning shall be performed except by approved arborist.

4- No equipment shall operate inside the protective fencing including during fence installation and removal.

5- See site preparation plan for any modifications with the Tree Protection area.

S-X

TREE PROTECTION

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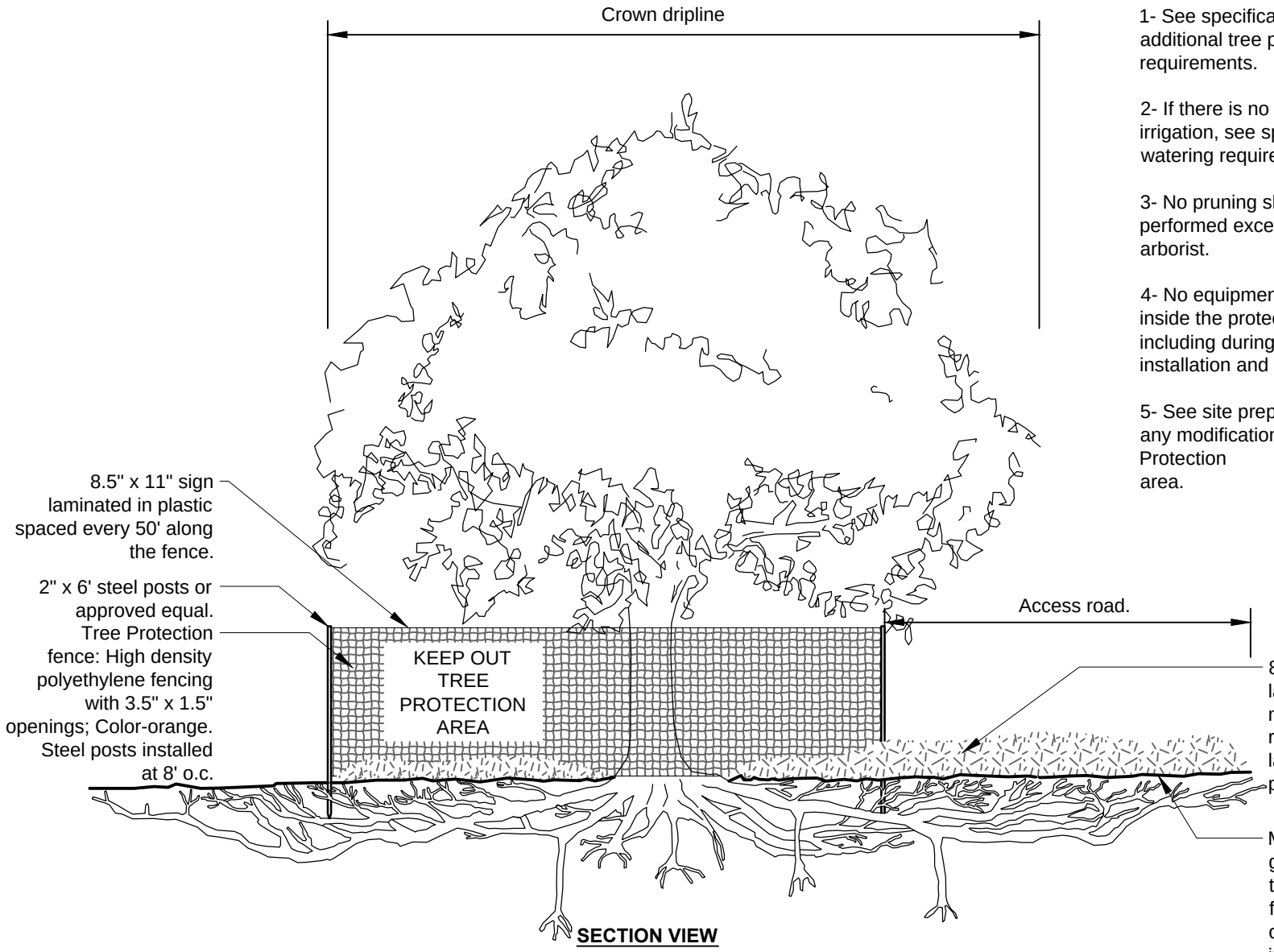

Notes:
1- See specifications for additional tree protection requirements.

2- If there is no existing irrigation, see specifications for watering requirements.

3- No pruning shall be performed except by approved arborist.

4- No equipment shall operate inside the protective fencing including during fence installation and removal.

5- See site preparation plan for any modifications with the Tree Protection
area.

S-X

TREE PROTECTION - MAINTENANCE ROAD

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DATE:	March 17, 2025	1ST READING:	March 17, 2025
INTRODUCED BY:	Mayor Corcoran	2ND READING:	April 7, 2025
REFERRED BY:	Committee of the Whole	3RD READING:	April 21, 2025
		ADOPTED:	April 21, 2025
		EFFECTIVE:	May 21, 2025

COW on 04-21-2025
Amended on the floor from COW on 04-21-2025

ORDINANCE NO. 2025-50

AN ORDINANCE REPLACING CHAPTER 1030 *STREET TREES* WITH NEW CHAPTER 1030 *TREES* AND REPEALING CHAPTER 1032 *MASTER TREE PLAN* OF THE NORTH RIDGEVILLE STREETS, UTILITIES AND PUBLIC SERVICES CODE.

WHEREAS, the current regulations governing public and private trees in the North Ridgeville Codified Ordinances have not been comprehensively updated to reflect modern arboricultural best practices and urban forestry management standards; and

WHEREAS, improving tree planting, maintenance and removal requirements will enhance environmental benefits, including air quality and stormwater management while promoting a healthier and more sustainable tree canopy for the City of North Ridgeville; and

WHEREAS, amendments to Chapter 1030 and Chapter 1032 of the Streets, Utilities and Public Services Code are needed to incorporate clearer guidelines, improved enforcement mechanisms and ensure the long-term protection and responsible management of trees within the community; and

WHEREAS, it is the desire of Council to amend these Codified Ordinances.

NOW THEREFORE, BE IT ORDAINED BY THE COUNCIL OF THE CITY OF NORTH RIDGEVILLE, LORAIN COUNTY, OHIO, THAT:

SECTION 1. Chapter 1030 *Street Trees* of the Streets, Utilities and Public Services Code which presently reads in its entirety as set forth in **Exhibit A** be replaced with a new Chapter 1030 *Trees*, and as such, shall read in its entirety as set forth in the document attached to this Ordinance as **Exhibit B**.

SECTION 2. Chapter 1032 *Master Tree Plan* as set forth in **Exhibit C** be repealed as the new *Chapter 1030 Trees* provides for the City Arborist to formulate and the Planning Commission to approve the North Ridgeville Master Tree Plan.

SECTION 3. Section 1010.01 of Chapter 1010 *Engineering Permits and Fees* be amended to add a permit fee for planting and removal activities on public property as described in Section 1030.05(a).

SECTION 4. It is found and determined that all formal actions of this Council concerning and relating to the adoption of this Ordinance were conducted in an open meeting of this Council, and that all deliberations of this Council and any of its committees that resulted in such formal action were in meetings open to the public in accordance with all legal requirements, including §121.22 of the Ohio Revised Code.

SECTION 5. This Ordinance shall take effect and be in full force from and after the earliest period allowed by law.

PASSED: April 21, 2025

Jason R. Jacobs
PRESIDENT OF COUNCIL

ATTEST :

Nicholas Ciofani
CLERK OF COUNCIL

APPROVED: Apr 23, 2025

Kevin Corcoran
MAYOR

Exhibit A

CHAPTER 1030. STREET TREES

1030.01 Definitions

As used in this chapter:

(a) "Arboriculture" and "tree preservation" mean and include the treating, spraying, pruning, maintaining and any other care or work intended for the strengthening of trees and the removal and prevention of tree pests, blights and diseases of any and all kinds.

(b) "City" means the City of North Ridgeville.

(c) "City Arborist" means the Safety-Service Director or such person specially designated as City Arborist.

(d) "Person" means any person, firm, partnership, association, corporation, company or organization of any kind.

(e) "Public place" means any public street, public highway, public park or any property owned or held by the City within the boundaries of the City.

(f) "Street tree" and "tree" mean a tree in a public place, except where otherwise indicated.

(Ord. 290-65, 9-7-65)

1030.02 City arborist

(a) Establishment; Appointment. There is hereby established the office of City Arborist, who shall be appointed by the Mayor and who shall, by virtue of his or her office, be the City Arborist.

(b) Scope of Authority. The City Arborist is hereby given full jurisdiction, authority, control, supervision and direction of all trees which now or which may hereafter exist upon any public place in the City, and over all trees which exist upon any private property in the City when such trees constitute a menace to the City.

(c) Issuance of Permits. The City Arborist is given full jurisdiction, authority and control in connection with the issuing of permits as provided for in this chapter.

(d) Delegation of Powers and Duties. In the exercise of any or all of the powers herein granted, the City Arborist shall have the authority to delegate all or part of his or her power and duties, with respect to the supervision and control of trees, to his or her subordinates and assistants in the employ of the City as he or she may, from time to time, determine.

(e) Authority and Duty to Order Trimming, Preserving or Removal of Trees on Private Property. The City Arborist shall have the authority, and it shall be his or her duty, to order the trimming, preservation or removal of trees or plants upon private property when he or she shall find such action necessary for the public safety or to prevent the spread of disease or insects to public trees and places.

(Ord. 290-65, 9-7-65)

1030.03 Conformity with master tree plan

No person shall plant, transplant or move any public tree on or to any street of the City except to a location where it will be in conformity with the Master Tree Plan, as provided in Chapter 1032 and the species or variety therein designated.

(Ord. 290-65, 9-7-65)

1030.04 Tree planting along newly opened and improved thoroughfares (repealed)

Editor's note(s)—(Section 1030.04 was repealed by Ordinance 3568-00, passed May 1, 2000)

1030.045 Retention and preservation of trees and woodlands

Developers shall retain and preserve as many healthy trees and woodlands as possible within their subdivisions and developments.

(Ord. 3568-00, 5-1-00)

1030.05 Permits for planting, removing, pruning, etc.

(a) Required. No person shall plant, remove, destroy, cut, prune, fertilize, treat, break, climb, injure or spray any tree existing on any public place in the City, or authorize or procure any person to do so, remove or tamper with any device placed for the protection of any such tree, attach any rope, wire, chain, sign or other device placed for the protection of such tree, or authorize or cause the same to be done, without having first obtained a written permit therefor from the City Arborist to do so.

(b) Contents; Protection of New Trees. Such permit, when granted for the planting of any tree to be located on any public place in the City, shall designate the species of tree to be planted, the required spacing and the required minimum planting size, as specified in the Master Tree Plan for the City, as it may be amended from time to time. All newly planted trees, whether installed by the abutting property owner or contractor, shall be supported by a ninety-six inch iron fence post placed on the street side of the tree. No person shall guy any tree less than four inches in caliper with wires or rope. For trees over four inches in caliper, special permission must be obtained and the permittee must assume liability for accidents occurring therefrom.

(c) Application Data. The application for the permit herein required shall state the number and kind of trees to be trimmed, sprayed, preserved, removed or planted, the kind of treatment to be administered, and such other information as the City Arborist shall find reasonably necessary for a fair determination of whether a permit should be issued hereunder.

(d) Standards for Issuance. The City Arborist shall issue the permit provided for herein when he or she finds that the desired action or treatment is necessary and that the proposed method and workmanship are satisfactory.

(e) Supervision of Work. The City Arborist shall have the authority, and it shall be his or her duty, to supervise all work done under a permit issued in accordance with the provisions of this chapter.

(f) Conditional Permits. The City Arborist shall have the authority to affix reasonable conditions to the granting of a permit hereunder.

(g) Exemptions. No permit shall be required to cultivate, fertilize or water public trees or shrubs. The City Arborist may authorize any person to do any work or act described in subsection (a) hereof without a written permit whenever he or she determines that such work or act will not be detrimental to the public interest and will be in accordance with the spirit and other requirements of this chapter.

(Ord. 290-65, 9-7-65)

1030.06 General tree and shrub regulations

(a) Injuring Trees and Shrubs. No person shall, without the consent of the owner in the case of a private tree or shrub, or without a written permit from the City Arborist in the case of a public tree or shrub, do, or cause to be done by others, any of the following acts:

(1) Secure, fasten or run any rope, wire, sign or other device or material to, around or through a tree or shrub;

(2) Break, injure, mutilate, deface, kill, destroy or permit any fire to burn where it will injure, any tree or shrub;

(3) Permit any toxic chemical, gas, smoke, salt, brine, oil or other injurious substance to seep, drain or be emptied upon or about any tree or shrub;

(4) Excavate any ditch, tunnel or trench or lay any drive within a radius of ten feet from any tree or shrub;

(5) Erect, alter, repair or raze any building or structure without placing suitable guards around all nearby public trees or shrubs which may be injured or defaced by, or where such injury or defacement may arise out of, in connection with or by reason of, such an operation. The quality of such guard shall be determined by the City Arborist.

(6) Knowingly permit any unprotected electric service wires to come in prolonged contact with any public tree or shrub; or

(7) Remove any guard, stake or other device or material intended for the protection of a public tree or shrub, or close or obstruct any open space about the base of a public tree or shrub designed to permit access of air, water and fertilizer.

(b) Trimming of Trees on Public Property. The City Arborist shall, and he or she is hereby directed to, keep trimmed all trees standing upon any public place in the City so that the branches of such trees projecting over any public sidewalk or private driveway or into any public street beyond the curb line shall not conflict with the public welfare.

(c) Trimming of Trees on Private Property. All trees standing upon private property in the City, having branches projecting into public highways or public places, shall, under the supervision of the City Arborist, be kept trimmed by the owner or occupant of such private property to such an extent that the lowest branches of such trees shall not come within nine feet of the ground where they overhang any public sidewalk or public place, or fourteen feet over a public highway.

(d) Obstruction of View at Intersections; Declaration of Public Nuisance. Notwithstanding any other provision of this chapter, no person shall maintain, plant or permit to remain, on any private or public premises situated at the intersection of two or more streets or alleys in the City, any hedge, tree, shrub or other growth which may obstruct the view of the operator of any motor vehicle approaching such intersection to the extent that such operator is unable to observe other vehicles or pedestrians approaching or crossing such intersection. Any such hedge, tree, shrub or growth is hereby declared to be a public nuisance.

(Ord. 290-65, 9-7-65)

1030.07 Certain species declared public nuisances; abatement

Any silver maple, honey locust, poplar, basswood, box elder, catalpa or willow upon private property in the City, in such close proximity to any public place in the City as will permit the roots of such tree to penetrate through or under the surface of any public place in the City, is hereby declared to be a public nuisance and may be abated by the City Arborist as provided in Sections 1030.02(e) and 1030.08.

(Ord. 290-65, 9-7-65)

1030.08 Authority of city arborist to trim and remove trees; infested or infected trees declared public nuisances

The City Arborist shall have the right and duty to trim any tree existing on any public place in the City so as to insure the public safety or to preserve the function or beauty of such public place. He or she shall further have the right to remove any such tree, or any part thereof, which is in an unsafe condition; which, by reason of its location or nature, is injurious or detrimental to other public improvements in the City; or which is infected with any injury, fungus, insect or other pest or disease which cannot otherwise be controlled. Such an infested or infected tree is hereby declared to be a public nuisance.

(Ord. 290-65, 9-7-65)

1030.09 Orders to trim, preserve or remove

(a) Written Order of City Arborist. When the City Arborist finds it necessary to order the trimming, preservation or removal of trees or plants upon private property, as authorized in Sections 1030.02(e) and 1030.06(c), he or she shall serve a written order to correct the dangerous condition upon the owner, operator, occupant or other person responsible for its existence.

(b) Method of Service. The written order required herein shall be served in one of the following ways:

(1) By making personal delivery of the order to the person responsible;

(2) By leaving the order with some person of suitable age and discretion upon the premises;

(3) By affixing a copy of the order to the door at the entrance of the premises in violation;

(4) By mailing a copy of the order to the last known address of the owner of the premises, by registered mail; or

(5) If unable to make contact by the above methods, then by publishing a copy of the order in a local newspaper once a week for three successive weeks.

(c) Time Limit for Compliance. The order required herein shall set forth a time limit for compliance, dependent upon the hazard and danger created by the violation. In cases of extreme danger to persons or public property, the City Arborist shall have the authority to require compliance immediately upon service of the order.

(d) Appeals. A person to whom an order is directed shall have the right, within seven days of the service of such order, to appeal to the Board of Zoning and Building Appeals, which shall review such order within ten days and file its decision thereon. Unless the order is revoked or modified, it shall remain in full force and be obeyed by the person to whom directed. No person to whom an order is directed shall fail to comply with such order within ten days after an appeal has been determined.

(e) Failure to Comply; Remedy of City. When a person to whom an order is directed fails to comply within the specified time, the City Arborist shall remedy the condition or contract with others for such purpose and charge the cost thereof to the person to whom the order is directed. The person remedying a condition under a contract made hereunder shall be authorized to enter premises for that purpose.

(f) Levying of Special Assessments. If the cost of remedying a condition is not paid within thirty days after receipt of a statement therefor from the City Arborist, such cost shall be levied against the property upon which such hazard exists as a special assessment. The levying of such assessment shall not affect the liability of the person to whom the order is directed to the fine as herein provided. Such special assessment shall be collected in the manner provided in the Ohio Revised Code, with a forfeiture of five percent and interest for failure to pay at the time fixed by the assessing ordinance.

(Ord. 290-65, 9-7-65)

1030.10 Placing of impervious materials adjacent to trees

No person shall place or maintain upon the ground any stone, concrete, brick or other impervious material or substance in such a manner as may obstruct the free access of air and water to the roots of any tree upon any public place in the City, without first having obtained written permission. Unless otherwise provided, there shall be maintained about the base of the trunk of each such tree at least nine square feet of open ground for each three inches in diameter of the tree. For every two inches of increase of such diameter, there shall be an increase of at least one square foot of open ground.

(Ord. 290-65, 9-7-65)

1030.11 Moving and replacing trees; security deposit or bond required

All moving of trees upon any public place in the City, made necessary by the moving of a building or structure or any other private enterprise, shall be done under the supervision of, and with the written permission of, the City

Arborist, and at the expense of the applicant or person seeking the removal of such tree. Such applicant, as one of the conditions to obtaining such permission, shall deposit with the City such sum in cash as the City Arborist may determine and specify to cover all of the costs of moving and replacing such tree, if the conditions of such permission require the replacement thereof. However, in lieu of such cash deposit, the City Arborist may, in his or her discretion, accept a good and sufficient bond in like amount conditioned upon the payment of all costs of such moving and replacing.

(Ord. 290-65, 9-7-65)

1030.12 Duties of private owners

No person whose property includes or abuts a street or highway right-of-way shall fail to:

(a) Trim trees in the right-of-way or on his or her abutting property so as not to cause a hazard to public places or interfere with the proper lighting of public highways by street lights. The minimum clearance of any overhanging portion thereof shall be nine feet over footways and fourteen feet over vehicular ways.

(b) Treat or remove any tree or plant so diseased or insect-ridden as to constitute a hazard to trees, plants, pedestrians or motorists in public places;

(c) Remove and refrain from planting any of the trees listed in Section 1030.07;

(d) Remove any other obstructions causing a hazard to public places; and

(e) Remove or control any tree or plant containing a hazardous insect infestation.

(Ord. 4775-2010, 9-7-10.; Ord. 4796-2010, 11-15-10)

1030.13 Inspections by city arborist; right of entry

The City Arborist shall have the authority to enter upon private premises at all reasonable times for the purpose of examining any tree or shrub located upon or over such premises and for the purpose of carrying out any of the provisions of this chapter.

(Ord. 290-65, 9-7-65)

1030.14 Obstruction of city arborist

No person shall prevent, delay or interfere with the City Arborist or his or her designees while they are engaged in carrying out any work or activities authorized by this chapter.

(Ord. 290-65, 9-7-65)

1030.99 Penalty

Whoever violates any of the provisions of this chapter is guilty of a misdemeanor of the fourth degree and shall be fined not more than two hundred and fifty dollars ($250.00) or imprisoned not more than thirty days, or both, for each offense. A separate offense shall be deemed committed each day during or on which a violation occurs or continues.

CHAPTER 1030 TREES

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1030.02 DEFINITIONS.
1030.03 CITY ARBORIST.
1030.04 TREE PROTECTION AND PRESERVATION ON PUBLIC PROPERTY.
1030.05 TREE PLANTING OR REMOVAL ON PUBLIC PROPERTY.
1030.06 TREES ON PRIVATE PROPERTY.
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1030.09 PROHIBITED TREES.
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1030.11 NONCOMPLIANCE.
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1030.01 PURPOSE.

The purpose of this chapter is to promote the public health, safety and general welfare through the preservation, replacement and planting of trees native to our area and the removal of diseased or invasive trees in order to moderate storm water runoff, reduce erosion and sedimentation, lessen air pollution, moderate air temperature, increase and support biodiversity, maintain wildlife habitats, reduce noise and light glare, provide visual screening, provide natural shading, protect property values and enhance the natural beauty of the community.

1030.02 DEFINITIONS.

For the purposes of this chapter, the following definitions shall apply:

(a) "Boundary Line Tree" means a tree where the property boundary line passes through any portion of the trunk of a tree at the point where the trunk emerges from the ground.

(b) "Diameter Breast Height" (DBH) means the diameter of a tree measured at four and one-half feet above the existing grade at the base of the tree. This measurement is an industry standard measurement used for existing trees.

(c) "Drip line" means the imaginary circle on the ground beneath a tree at the furthest edge of the tree's canopy.

(d) "ISA" means the International Society of Arboriculture who as a group governs the accreditation of tree care professionals.

(e) "Remove" or "Removal" means the causing or accomplishing of the actual physical removal of a tree, or the effective removal through damaging, poisoning or other direct or indirect action resulting in, or likely to result in, the death of a tree.

(f) "Public tree" means a tree that is planted in a public place, such as a park, public right-of-way or open space.

(g) "Tree" means any self-supporting woody plant together with its root system, growing upon the earth usually with one trunk, or multi-stemmed trunk system, supporting a definitely formed crown.

(h) "Tree Maintenance" means the caring for and protection of trees by property owners and contractors, adhering to ANSI A300 standards to reduce the prevalence of issues, including the possible spread of disease, stemming from poor pruning practices.

(i) "Tree Preservation Plan" means a proposal which includes a tree survey and a written plan with text and/or graphic illustrations indicating the methods which are to be used to preserve existing trees during construction, and methods for ongoing maintenance, including fertilizing and pruning following ANSI A300 standards.

(j) "Tree Selection" means for residents and contractors planting trees, recommendations to plant non-invasive tree species as published by the State of Ohio Forestry Department and/or the North Ridgeville Master Tree Plan, but not limited to these sources.

(k) "Tree Survey" means a graphic display drawn to scale by a landscape architect or certified arborist, not to exceed 1 inch = 50 feet, showing all existing trees on the site having a diameter of eight (8) inches DBH or larger. Any tree survey shall include species, location and DBH of each such tree.

1030.03 CITY ARBORIST.

(a) Establishment; Appointment. There is hereby established the position of City Arborist, who shall be appointed by the Mayor and who shall be an ISA certified arborist.

(b) Scope of Authority. The City Arborist is hereby given full jurisdiction, authority, control, supervision and direction of all trees which exist upon any public place in the City, and over all trees which exist upon any private property in the City when, in their opinion, such trees constitute a hazard to public health, safety or welfare.

(c) Issuance of Permits. The City Arborist is given full jurisdiction, authority and control in connection with the issuing of permits as provided for in this chapter.

(d) Master Tree Plan. The City Arborist shall have the authority to formulate a Master Tree Plan that shall apply to the planting, maintenance, control and removal of all trees within rights of way and other public places, which shall be presented to Planning Commission and upon their acceptance and approval shall constitute the official North Ridgeville Master Tree Plan. The Master Tree Plan may include, but not be limited to, the following plan elements:

(1) Survey of public trees;
(2) Tree species selection for rights of way, parks, cemeteries, civic facilities and other public places;
(3) Lists of permitted and prohibited trees;
(4) Tree planting specifications and spacing requirements;
(5) Tree maintenance and preservation guidelines; and
(6) Best practices tree management techniques.

(e) Delegation of Authority. In the exercise of any of the powers herein granted, the City Arborist shall have the authority to delegate all or such part of their powers and duties, with respect to supervision and control of trees, to their subordinates and assistants in the employ of the City, as they may from time to time determine.

1030.04 TREE PROTECTION AND PRESERVATION ON PUBLIC PROPERTY.

(a) No person shall destroy, damage, cut, carve, climb with spurs or otherwise severely injure

any tree or shrub, including the root system, having all or any portion of its trunk within the public right of way or on public property.

(b) No person shall attach or place any object, including, but not limited to, rope, wire, nail, chain or sign, to any such tree or shrub or attach any such object to the guard or stake intended for the protection of such tree within the public right of way or on public property.

(c) No person shall place, store, deposit or maintain upon the ground any compacted stone, cement, brick, sand or other materials which may impede or obstruct the free passage of air, water and fertilizer to the roots of any tree or shrub within the public right of way or on public property.

(d) No person shall cause any natural or artificial gas, water, oil, liquid dye or any other substance deleterious to trees to come in contact with the soil surrounding the roots of any trees upon any public place in the City, in such a manner as to kill, injure, deface, destroy or affect the growth of such trees.

(e) No person shall damage, misuse or remove any device placed to protect or maintain such tree within the public right of way or on public property, except in case of immediate necessity for the protection of life or property.

(f) No person shall change the natural drainage; excavate any ditches, tunnels or trenches; or lay any drive within the drip line of any tree having all or any portion of its trunk in or upon any public property without obtaining a written approval from the City and without strictly complying with the provisions of the issued approval and provisions of this chapter.

(g) No person shall attach any electric wire to any tree growing or planted in any public right-of-way of the City, including low voltage holiday lighting without the written permission of the City Arborist. Every person having any wire charged with electricity running through or across a public street shall securely fasten such wire or wires so that they shall not come in contact so as to injure any tree therein, and shall temporarily remove any such wire or the electricity therein when it shall be deemed necessary by the City Arborist, in order to take down or prune any trees growing in a public street, within 24 hours after the service upon the owner of such wire, or their agent, of a written notice to remove the wire or the electricity therefrom.

(h) No person shall perform, or contract with another to perform, excavation or construction work within the drip line of any tree having all or any portion of its trunk in or upon any public property without first installing a fence, frame or box in a manner and of a type and size satisfactory to the City to protect the tree during the excavation or construction work. For every one inch of DBH there shall be one foot of protective radius around the tree unless otherwise approved by the City Arborist. All building materials, equipment, dirt, or other debris shall be kept outside the root protection zone. The tree protection fence, frame or box shall not be removed unless or until the City authorizes it to be removed.

1030.05 TREE PLANTING OR REMOVAL ON PUBLIC PROPERTY.

(a) Permit Required. No person shall plant, prune, top or remove any tree or shrub on any public right-of-way or public property without first obtaining a permit from the City Arborist. The permit application shall be in a form designated by the City Arborist.

Permit fees are listed in Chapter 1010.

(b) Exemptions. The permit requirements of this section shall be followed except in the following circumstances:

(1) During a period of emergency, such as a tornado, ice storm, flood or other such extreme act of nature as declared by the City Arborist.

(2) If the failure to remove a tree would constitute an imminent danger to the environment, public property, public health, safety or welfare due to the hazardous or dangerous condition of such tree as determined prior to removal by the City Arborist.

(3) For necessary tree removal by a public agency or utility company within dedicated easements.

(4) If the tree is dead, dying or diseased as approved prior to removal by the City Arborist.

(5) In the event of an emergency or hardship as determined by the City Arborist.

(c) Planting Requirements.

(1) No tree or shrub shall be planted in any of the public streets or right of way of the City by any developer or property owner, except as is provided in the Master Tree Plan heretofore adopted by the City. Any permit application for planting shall designate the species of trees to be planted, proposed spacing and the minimum caliper size, which shall be in conformance with the Master Tree Plan.

(2) No tree shall be planted under electric lines on any of the public streets of the City, which at the estimated full growth will exceed 25 feet in height, or as to interfere with the aforementioned utility lines.

(d) Removal. The City may cause the removal of any existing tree in the right-of-way that does not conform with the Master Tree Plan.

1030.06 TREES ON PRIVATE PROPERTY.

(a) Duty to Maintain Trees and Landscaping. The City Arborist shall have the authority, and it shall be their duty, to order the trimming, preservation or removal of trees or plants upon private property when they find such action necessary for the public safety or to prevent the spread of disease or insects. In the event the owner does not properly trim or remove any tree, plant, shrubbery or any part thereof, in accordance with the provisions of this chapter, then the City Arborist is authorized to cause to be trimmed or removed such tree, plant, shrub or part thereof.

(1) The owner shall trim or cause to be trimmed each tree so that a clear height of eight (8) feet between the lowest branches of the tree and the apron or sidewalk is maintained, and a clear height of 14 feet between the lowest branches of the tree and the street is maintained.

(2) The owner shall trim or remove, as the case may require, every dead, diseased, decayed or broken tree, plant or shrubbery, or part thereof, so that the same shall not fall to the street or sidewalk or pose other risk to public safety.

(3) The owner shall cut down and remove any tree, plant or shrubbery, or any part thereof, as may be necessary to provide a clear and unobstructed view of traffic from all directions at any street intersection, or to abate any nuisance necessary to protect life, limb or property of persons, drivers of any vehicles or pedestrians

using such street or sidewalk.

(b) Maintenance of Oak Trees. No oak trees shall be trimmed during the months of April through October in order to prevent the spread of Oak Wilt unless deemed necessary or hazardous after review by the City Arborist.

(c) Notices, Orders and Abatement. If upon inspection the City Arborist determines that there has been a violation of this section, notice shall be given to the owner and/or responsible party in the manner prescribed below.

(1) The City Arborist shall issue a written Notice of Violation to the property owner by delivering it personally to the owner of the property, or by mailing a copy of such order to the last known address of the owner by first class mail. The order shall set forth a time limit, not to exceed 30 days for compliance. If the notice is returned showing the letter was not delivered, a copy thereof shall be posted in a conspicuous place on or about the property involved. Posting for 72 hours shall be considered legal notice.

(2) In case of extreme danger to persons or property as determined by the City Arborist, compliance may be required immediately, or the danger may be removed by the City by notifying the property owner by posting a written notice at the property or delivering the written notice personally to the owner.

(3) Upon failure to comply with the order within the specified time, the City may remedy the condition or contract with others for such purpose and charge the cost of abatement to the owner. Costs of city personnel and equipment will be computed on the basis of the rates on file with the Clerk of Council. The person remedying the condition shall be authorized to enter upon the premises for that purpose. The City's recoupment of cost shall follow the procedures in Chapter 215. The levying of such an assessment shall not affect the owner's liability for a fine as hereinafter provided.

1030.07 BOUNDARY LINE TREES.

(a) When a boundary line tree trunk is on the line between two or more private properties, the respective property owners shall share the responsibility to care for and maintain the tree. In the event the tree becomes damaged, diseased or dies, the property owners will be expected to work together and shall be jointly responsible in the proper removal of the affected tree and its contents.

(b) When a boundary line tree is between the public right-of-way or public and private property, the City shall be responsible to maintain and/or properly remove the tree.

1030.08 TREE PLANTING PLAN REQUIREMENTS.

(a) Tree Requirements for New Development. The trees mandated by this section shall be planted prior to final grade approval, and shall be shown as a component of the grading plan as required by Chapter 1056.

(1) Residential Subdivision. There shall be a minimum of one (1) tree planted per dwelling unit which shall be no less than 2-inch minimum caliper. Trees are to be arranged with emphasis on the front facades. The initial height of trees is to be a minimum of six (6) feet.

(2) Commercial Development. Commercial developments subject to review under Chapter 1243 must submit a landscape design plan when seeking approval to build or to expand. For new commercial development, there shall be a tree planted in a landscaped area for every 50 lineal feet of building perimeter or fraction thereof.

(3) Tree Variety. Developers shall use a minimum of three different types of trees in their planting plan. More variety shall be required for larger planting plans. Monocultures promote both the spread of disease and also result in the natural deterioration by all trees at the same time in their natural life cycle. Both results are undesirable for the health of the trees and for the long-term beautification of the City and the environment. Therefore, a diverse planting plan with adequate variety is required.

(b) Conflict. Should any provision of this section be unattainable due to geographic impracticalities or due to other unavoidable characteristics of the site, such provision may be waived by the City Arborist as long as the developer or applicant provides a reasonable alternative tree planting plan.

1030.09 PROHIBITED TREES.

The City Arborist shall maintain a list of prohibited trees. Prohibited trees shall also include any that appear on lists of prohibited or invasive plants published by the Ohio Department of Natural Resources, the Ohio Department of Agriculture, or the Ohio Invasive Plant Council.

1030.10 CONTRACTOR REGISTRATION.

All contractors performing tree trimming, removal or stump grinding must be registered with the City pursuant to Chapter 1446.

1030.11 NONCOMPLIANCE.

It shall be unlawful for any person, firm or corporation, to fail to abide by the terms of any tree preservation plan or tree removal permit issued by the City. If, in the opinion of the City Arborist, the necessary precautions as specified in the tree preservation plan were not undertaken before construction commenced or are not maintained at any time during construction, a stop work order will be issued by the City until such time as the permittee complies with these precautions.

1030.12 APPEALS.

Any person directly affected by a decision of the City Arborist or a notice or order issued under this chapter shall have the right to appeal the Board of Zoning and Building Appeals, provided that a written application for appeal is filed within the lesser of either ten (10) days after the date the notice or order was served or the date of the expiration of the compliance period set forth in the notice. Appeals of notices and orders shall stay the enforcement of the notice and order until the appeal is heard by the Board of Zoning and Building Appeals, except in the case of extreme danger to persons or property as determined by the City Arborist.

1030.99 PENALTIES.

Whoever violates any provision of this chapter or fails to comply with any written notice or order issued thereunder shall be guilty of a fourth-degree misdemeanor. Each day such violation occurs or continues shall constitute a separate offense.

Exhibit C

CHAPTER 1032. MASTER TREE PLAN

1032.01 Short title; application

This chapter shall be known and may be cited as the Master Tree Plan of the City and shall have application to the planting, maintenance, control and removal of all trees, shrubs, hedges and brush within the rights of way or other public places of the City.

(Ord. 291-65, 9-7-65)

1032.02 Definitions

As used in this chapter:

(a) "Brush" means uncontrolled, wild growth of woody plants.

(b) "Hedge" means a group of woody plants planted in a line so as to form a barrier.

(c) "Nursery" means orderly group plantings of trees or shrubs for commercial purposes.

(d) "Orchard" means orderly group planting of fruiting trees or shrubs for the purpose of producing edible products.

(e) "Shrub" means a woody plant which increases its size by growth from shoots at its base.

(f) "Tree" means a woody plant which increases its size by growth from the upper buds.

(Ord. 291-65, 9-7-65)

1032.03 General requirements for planting and maintenance of trees

(a) No single variety of tree shall constitute more than twenty percent of the total number of trees planted in any area.

(b) The life expectancy of any tree at the time of planting shall be thirty-five years, with regard to site and placement.

(c) All tree planting shall be made with ample consideration to overhead electrical service wires.

(d) All repair and construction of underground utilities within the drip line of trees shall be done by boring methods. No trenching shall be permitted within the drip line area.

(e) No tree shall be planted on City property in proximity to buildings or in any manner that, at maximum growth, would enable any branch or portion of the tree to come in contact with any structure.

(f) Tree guards shall be placed around the base of young trees in areas where damage by rodents is prevalent.

(g) Herbicides shall be used during dormant periods to control brush or weeds on City lands, ditches and roadsides.

(Ord. 291-65, 9-7-65)

1032.04 Method of establishing value of trees

In order to determine the value of growing trees in the event that trees on public property have to be destroyed, removed or planted, the following standards and methods are provided:

(a) The base value of each tree shall be calculated at fifteen dollars ($15.00), plus five dollars ($5.00) for each inch of circumference of the trunk measured fifty-four inches above ground level. All trees of transplanting size shall be at replacement cost only.

(b) The following additional factors shall be considered with relation to the computation of tree value and calculated by percentage of value as follows:

(1) Quality standard for variety:

A.	Special specimen	100% value
B.	Ornamental	50% value
C.	Common tree	75% value
D.	Poor quality or wood tree	50% value

(2) Condition and location:

A.	Well formed, ideal location	100% value
B.	Average form and location	75% value
C.	Poor form and location	50% value

(3) Age and vitality:

A.	Transplanting size	Cost
B.	Prime growth, mature	100% value
C.	Old, full-grown, no poor areas	50% value
D.	Degenerating, hollow	25% value

(4) Potential to landscape and buildings:

A.	Ideal, well landscaped	100% value
B.	Street trees, group plantings	75% value
C.	Isolated, no landscaping	25% value

(5) Susceptibility to insects and disease:

A.	Resistant varieties	100% value
B.	Regular varieties	75% value
C.	Host varieties	25% value

(Ord. 291-65, 9-7-65)

1032.05 Pruning and trimming

(a) All pruning and trimming performed on trees under City control shall be done with emphasis on the maintenance of the natural growth habits of the variety.

(b) Severe pruning shall be avoided in all cases except where necessary for power line clearance. Trees which must be trimmed severely so as to form a slab-side or other undesirable form shall be completely removed.

(c) Water sprouts and sucker growth shall be removed from all trees under City control at least once annually. Trees which produce growths by habit are prohibited.

(Ord. 291-65, 9-7-65)

1032.06 Planting and care within specific areas

(a) Cemeteries.

(1) Five percent of all trees planted within cemetery areas shall be of the evergreen variety.

(2) Flowering type varieties of deciduous trees may be planted. Roadways within cemetery areas may be planted with deciduous trees with alternate spacing on each side.

(3) No trees shall be planted over grave sites.

(b) Business Districts.

(1) Formal sheared or dwarf-type trees or shrubs may be grown above the ground level in permanent-type containers on sidewalk areas.

(2) No trees shall be planted permanently in the ground in business areas unless sufficient area is assured so that, at maximum growth, limbs will not obstruct walkways or come in contact with structures.

(c) Parks and Playgrounds.

(1) Planting of trees and shrubs shall be done so as to avoid any concealment of adjacent or nearby walks, pathways or thoroughfares.

(2) Hedgerows shall be prohibited except as perimeter fences or screens.

(d) Residential Areas.

(1) Only upright or horizontal growth-type trees shall be permitted within street areas.

(2) Drooping or weeping types of trees shall not be planted on public property if any portion of the tree, including underground or overhanging portions, might come into contact with or overhang public thoroughfares or sidewalks.

(3) The planting of trees along streets shall be between the sidewalk and the improved portion of streets, where possible.

(4) Any one variety of tree shall not exceed twenty percent of the total number of trees planted within any area. Four or five varieties of trees shall be planted within any area so as to prevent epidemic losses due to disease.

(5) All trees shall be planted at intervals of fifty feet, but with due consideration for lot area, driveways, sewers, electrical service, etc. Alternate spacing shall be provided for each side of the roadway.

(6) No planting shall be permitted so as to obscure street lighting or fire hydrants.

(7) No more than one tree may be planted on each circular area of a cul-de-sac.

(8) No planting of trees or shrubs shall be permitted on City streets in a close grouping so as to harbor weeds or debris.

(9) No fruit trees shall be planted on City streets.

(10) All hedgerows planted within fifty feet of a paved portion of any street shall be limited to thirty inches in height and twenty-four inches in width.

(11) Any area grown with brush shall be cleared by the property owner upon proper notice from the City. Failure of the property owner to act shall give the City cause to clear such areas and to charge the property owner for the cost of clearance. The City shall be authorized to obtain a judgment as in ordinary civil proceedings against such property owner for the cost of such clearance.

(e) Highway and Arterial Road Areas.

(1) All tree planting shall be done outside of the improved portion of any road or street.

(2) On State and Federal highways, all planting shall be at least twenty-five feet from the improved portion of highways. On local arterial roads all planting shall be at least ten feet from the improved portion of roadways.

(3) No planting shall be made within fifty feet of any intersection. All plantings of trees shall be of upright, ground-type trees.

(4) All trees planted shall provide spacing in intervals of sixty to seventy-five feet, with consideration being allowed for existing property arrangements.

(5) No shrubs or fruit trees shall be planted within the above areas.

(6) No planting shall be done so as to obscure any street light or fire hydrant.

(7) Hedgerows planted within fifty feet of the improved portion of a roadway shall be limited to thirty inches in height and twenty-four inches in width.

(8) Before any planting is performed or done within highway or road areas, communication shall be made with the appropriate County, State or City officials.

(Ord. 291-65, 9-7-65.; Ord. 4492-2007, 12-17-07)

1032.07 Street tree survey; planting guide

(a) The Street Tree Survey and the Planting Guide are hereby made a part of this chapter as if fully incorporated herein and shall serve as a guide to the City Arborist in the enforcement of the provision of this chapter. These documents are on file with the Clerk of Council.

(b) The Planting Guide, insofar as it recommends tree varieties for particular streets, shall be followed. As the Planting Guide of the City is extended to other streets and areas, it shall be followed insofar as planting requirements are concerned.

(Ord. 291-65, 9-7-65)

1032.08 Enforcement by city arborist

(a) The provisions of this chapter shall be enforced by the City Arborist.

(b) When a person to whom an order is directed fails to comply therewith within ten days, or within such other period as the City Arborist may authorize, the City Arborist shall remedy the condition or contract with others for such purpose and charge the cost thereof to the person to whom the order is directed. The person remedying a condition under a contract made hereunder shall be authorized to enter premises for that purpose.

(Ord. 291-65, 9-7-65)

1032.09 Tree planting plan requirements

(a) Planting Requirements for all new Development.

(1) Residential Districts. There shall be a minimum of one (1) tree planted or retained per dwelling unit which shall be no less than 2" minimum caliper. Trees are to be arranged within the front, sides or rear yard areas with emphasis on the front facades. The average initial height of trees is to be 6 ft. minimum.

(2) Commercial Development. Commercial developments must submit a landscape design plan when seeking approval to build or to expand. Factors to consider when reviewing such plans include: a) whether the green areas are environmentally appropriate and aesthetically pleasing; b) whether safety issues are addressed and whether delivery of city services or safety forces are negatively impacted; c) how the landscaping plan impacts the functional utility of the property for its commercial purposes. Benches, grates, or other appropriate landscape materials designed and located in a manner complimentary to the overall architecture of the commercial establishment and of the surrounding buildings are encouraged. The intent is to encourage an equally spaced landscape envelope around the perimeter of the building to the degree practicable. Combining of tree planting areas is acceptable. Within the commercial development, the minimum number of trees to be planted shall be determined as follows: There shall be a tree planted in a landscaped area for every 50 lineal feet of building perimeter or fraction thereof.

(3) The trees required by this Chapter shall be planted in conformity with the provisions of NRCO Chapters 1030 and 1032, as well as all other ordinances. The trees mandated by this section shall be planted prior to final grade approval, and shall be shown as a component of the grading plan as required by NRCO Chapter 1444.

(b) Major Arterial Roadway Tree Requirements.

(1) Trees noted below as prohibited plantings are not to be used on City-owned public property. City-owned public property shall include all public right-of-ways, streets, alleys, parks, or other property owned by the Municipality.

(2) The maximum spacing between trees shall be one hundred feet (100') for large trees, eighty feet (80') for medium trees, and sixty feet (60') for small trees.

(3) The tree location shall be at least thirty-five (35') feet from street intersections and ten feet from fire hydrants or utility poles.

(4) A small tree shall be used when planting under or within ten (10) lateral feet of overhead utility wires. A small or medium tree shall be used when planting within ten to twenty lateral feet of overhead utility wires. No tree, at maturity, shall exceed the height of the utility line.

(5) Trees may be of the same genus and species matched in form and size and planted continuously down a street. However, consideration must then be given to introducing other tree genus and species for other streets or cul-de-sacs in the same development. The prohibitions contained in subsection (d) herein must be observed.

(6) The minimum trunk caliper measured at six inches above the root ball for all street trees shall be no less than two (2) inches.

(c) Prohibited Plantings.

(1) No person shall cause to be planted any large tree within 30-feet of any public utility line above or below the ground including sewers, drains, manholes and inlets.

(2) No person shall cause to be planted any tree listed herein below on any public property or rights-of-way in the City, except as approved by the Safety Service Director:

A. Silver Maple (Acer Saccharinum)

B. Box Elder (Acer Negundo)

C. Horse Chestnut (Aesulus Hoppocastanum)

D. Tree of Haven (Ailanthus Altissina)

E. Birches, all species and varieties except Betula Nigra (River Birch Tree Form) (Betula)

F. All species and varieties (Catalpa)

G. All species, except as approved by the Safety Service Director (Malus)

H. Mulberry, all species and varieties (Morus)

I. American Sycamore (Plantanus Occidentialis)

J. London Plane (Plantanus X Acerifolia)

K. Poplar, all species and varieties; includes aspen and cottonwood (Populus)

L. Black Locust (Robinia Pseudoacacia)

M. All species and varieties; includes willows and osiers (Salix)

N. European Mountain Ash, Rowan (Sorbus Aucuparia)

O. Siberian Elm (Ulmus Pumila)

(d) Guidelines and Prohibitions.

(1) Large trees are those which exceed fifty (50') feet in height at maturity. Medium trees are between thirty (30') feet and fifty (50') feet in height at maturity.

(2) Trees transplanted under or near overhead utility lines shall not exceed, at maturity, the height of the lines.

(3) Developers shall use a minimum of three different types of trees in their planting plan. More variety shall be required for larger planting plans. Monocultures promote both the spread of disease and also result in the natural deterioration by all trees at the same time in their natural life cycle. Both results are extremely undesirable for the health of the trees and for the long term beautification of the City and the environment. Therefore, a diverse planting plan with adequate variety is required.

(e) Conflicts.

(1) Should any provision of this section be in conflict with any other provision of the Codified Ordinances, the provisions of this ordinance shall prevail unless the Safety Service Director or his designee, determines otherwise for practical and articulable reasons.

(2) Should any provision of this section be unattainable due to geographic impracticalities or due to other unavoidable characteristics of the site, such provision may be waived by the Safety Service Director or his designee as long as the developer or applicant provides a reasonable alternative tree planting plan.

(f) Enforcement. Final approval of all required tree planting plans shall be reviewed and obtained in writing from the Safety Service Director or his designee, and shall accompany the plans for development before final Planning Commission approval where applicable, or before final approval by the City Engineer where otherwise applicable.

(Ord. 4699-2009, 12-7-09)

1032.99 Penalty; equitable remedies

(a) Whoever violates any of the provisions of this chapter is guilty of a misdemeanor of the fourth degree and shall be fined not more than two hundred fifty dollars ($250.00) or imprisoned not more than thirty days, or both, for each offense. A separate offense shall be deemed committed each day during or on which a violation occurs or continues.

(b) For the purpose of enforcing this chapter, the City Arborist or the Safety-Service Director is authorized to bring injunctive proceedings or such other equitable proceedings as are neces

Planning Commission Application

RECEIVED
FEB 2 1 2025

CITY OF NORTH Ridgeville EST 1810

SUBMITTAL INSTRUCTIONS AND PROCEDURES

Plan reviews will be carried out according to the processes described in the City's Zoning Code.

- Pre-Application. Prior to making application, applicants are recommended to contact the city to discuss their development project. City staff will outline the review process and provide a checklist of required submittals.
- Application Submittal. Following the pre-application meeting, the applicant shall submit this completed application, fee and ten (10) sets of all required exhibits. All submissions shall be made in hard copy to the Building Division. Plans shall be collated, folded and easily legible.
- Staff Review. The applicant shall attend a staff review meeting and may be required to submit additional information and/or revised plans based on staff input.
- Variances. Where zoning variances are sought by the applicant, review by the Board of Zoning and Building Appeals will be necessary prior to consideration by the Planning Commission, requiring a separate application.
- Decision or Referral. Following staff review, complete submittals for Administrative Review projects may be considered for approval. For Council Review projects, complete submittals shall be referred to the next available Planning Commission meeting, which are held the second Tuesday of each month.

PROJECT INFORMATION

7777 VICTORY LANE
Location address

#0700003102106
Parcel number(s)

Project type: ☐ Commercial/Industrial/Multi-Fam ☐ Prelim Major Subdivision ☐ Final Major Subdivision ☐ Lot Split

Project elements: ☐ New Construction ☐ Building Addition/Alteration ☒ Site Improvements ☐ Plat

CONVERT 1- GRASS SOCCER FIELD TO TURF; INSTALL 1-ADDITIONAL TURF SOCCER FIELD
Project description

APPLICANT/AGENT INFORMATION

PMJ PARKHOLDINGS
Name/Company

7777 VICTORY LANE NORTH RIDGEVILLE OH 44039
Applicant address

440-477-3311
Applicant phone

JBORKEY@VICTORYPARKOHIO.COM
Applicant email

PROPERTY OWNER INFORMATION

CITY OF NORTH RIDGEVILLE
Name/Company

Property owner address

Property owner phone

Property owner email

APPROVED MAR 11 2025

AUTHORIZATION AND ACKNOWLEDGEMENT

[signature] partner
Applicant signature

Property owner signature

I hereby authorize the City of North Ridgeville, including Planning Commission members, to view the premises and consent to their entry onto the property for the purpose of observing site conditions related to review of my application.

OFFICE	PPZ No.	Planning Fee Paid	ACTION
	PPZ2025-0337	$150.00 ✓#27249	[signature]

*lighting plan withdrawn

Conditions –
*Athletic Field must have 15 foot min. runout.
*Double gate at each field for emergency access.

Planning Review

April 28, 2025

Project: Victory Park Turf Fields Lighting
Location: 7777 Victory Lane
PPNs: 07-00-003-102-105, 07-00-003-102-106
District: I-2 Light Industrial District

Background:

Victory Park is owned by the City of North Ridgeville but operated by PMJ Park Holdings, LLC, a private entity. While the property is zoned I-2 Light Industrial, the agreement between the city and operator establishes the permitted use as a sports park facility, including ballfields, parking, lighting, fencing and all of the other amenities in support of a sports park. The agreement also provides that prior to the installation of any changes, the city will review and approve any such installation in compliance with the codified ordinances including review by city boards, commissions and/or Council.

Earlier this year, Planning Commission approved the installation of two turf fields and site improvements at Victory Park. However, insufficient detail was provided in regards to the proposed lighting package, which was separated out from the approval.

Project Summary:

Planning Commission has unique authority to grant approval of lighting plans for certain uses that do not otherwise comply with the city's lighting ordinance.

> *Because of their unique requirements for providing greater night-time visibility, their need to ensure public safety, and their limited hours of operation, stadiums (which include ball diamonds, playing fields, and tennis courts), amphitheaters, and similar uses are exempted from the exterior lighting standards as specified above. A lighting plan for these uses shall be established at the time that the request for exterior lighting is made and shall be subject to Planning Commission approval.* 1285.08(e)(3)

Twelve new pole lights are proposed. Ten surrounding the new fields are 80 feet high and two are 70 feet high. Pole height, fixture type and illumination levels all exceed code requirements. Light trespass will occur on abutting properties. The applicant was asked to address a number of questions and concerns in their lighting resubmittal to Planning Commission. Below are the questions and the applicant's responses in bold.

- Show property lines on your photometric plan so Planning Commission members can better determine what level of light trespass, if any, is occurring on neighboring properties. **Geo Sport has added the property lines to the drawings as coordinated with Bramhall.**
- Provide setbacks of the proposed light poles from north and east property lines. Setbacks had been shown from the edge of the turf field, rather than the property lines. **The setbacks are shown on the civil site plans.**

- Provide evidence as to the need for lighting of the height and illumination levels proposed. Are there industry minimum standards? **FIFA Standards for anticipated levels of play range from 30fc to 50fc. High School Baseball requires 50fc for the infields. To maintain uniformity throughout the park, we are matching the height of the current poles.**
- Provide description of the proposed system and how an LED lighting system of this type is different/better than older style field/stadium lighting. **Geo Sport will be providing more information soon.**
- Provide evidence or supporting documentation that proposed lighting will not create glare or nighttime visibility issues for drivers on adjacent road networks. **The levels of light CURRENTLY reaching Lorain/Cook intersection from the OTHER business and VPO is already approximately 7 FC. The "bleed" from these new lights is expected to have an effect of </=0.1 FC**
- Provide evidence or supporting documentation that proposed lighting will not create additional negative impacts on adjacent businesses, including the drive-in theater, specifically in regards to screen visibility. **The Drive-In theater issue was PREVIOUS to the soccer field lights ever being energized. Ohio Sports Park (the owner at the time), installed shields for the specific lights impacting the theater. Since then, the Theater has transitioned to digital screens, and the previous light spill is a non-factor.**
- Describe any light spill control measures, such as shielding or angling of fixtures will be used to minimize glare. **Utilizing the new technology and direct-aimed fixtures will virtually eliminate any light spill to other properties.**

Planning Review

March 3, 2025 (updated March 10, 2025)

Project:	Victory Park Turf Fields
Location:	7777 Victory Lane
PPNs:	07-00-003-102-105, 07-00-003-102-106
District:	I-2 Light Industrial District

Project Summary:

Victory Park is owned by the City of North Ridgeville but operated by PMJ Park Holdings, LLC, a private entity. The property is zoned I-2 Light Industrial; however, the agreement between the city and operator establishes the permitted use as a sports park facility, including ballfields, parking, lighting, fencing and all of the other amenities in support of a sports park. The agreement also provides that prior to the installation of any changes, the city will review and approve any such installation in compliance with the codified ordinances including review by city boards, commissions and/or Council.

The proposal consists of the installation of two turf fields, lighting and site improvements at Victory Park. The new fields are identified as Turf 3 and Turf 4 on the site plans provided. Turf 1 and Turf 2, existing to the west of the new fields, were installed in the last several years without going through the required Planning Commission review or permitting processes.

The new fields are shown located in the northernmost area of the site with the existing turf fields to the west and the lake to the east. An existing asphalt access drive between the fields will be reduced in length and reconfigured to terminate in a T turnaround.

Twelve new pole lights are proposed. Ten surrounding the new fields are 80 feet high and two are 70 feet high. Pole height, fixture type and illumination levels all exceed code requirements; however, due to the nature of the development, Planning Commission has authority to grant approval of the lighting plan without the need for variances:

> Because of their unique requirements for providing greater night-time visibility, their need to ensure public safety, and their limited hours of operation, stadiums (which include ball diamonds, playing fields, and tennis courts), amphitheaters, and similar uses are exempted from the exterior lighting standards as specified above. A lighting plan for these uses shall be established at the time that the request for exterior lighting is made and shall be subject to Planning Commission approval. 1285.08(e)(3)

Recommendations:

- Provide grading plan (1243.05(b)). New fields encroach 10 feet into "Ex. 25' Side Setback." Proposed Turf 3 is located in close proximity to lake. Will east end of fields be graded? Is tree clearing involved? How will erosion be prevented. Light fixtures also shown in close proximity to lake. Grading plan not provided, but must be submitted with engineering permit application.
- Field surface shown 415 feet (E/W) by 540 feet (N/S). Width of PPN ending -106 is approximately 425 feet wide. Can field size be slightly reduced to better fit into space, allowing for room between east

and west fields for emergency access and sufficiently setback from lake to alleviate grading and erosion concerns? Field width (east-west) has been reduced to 400 feet. Setback to east property line shown at 25 feet.

- Provide detail on any proposed fencing or netting. Barrier netting indicated in purchase proposal and contract document, but no fencing locations shown on site plan and no construction spec provided. Both netting and 4-foot-high black chain link fencing locations shown on site plan. Spec provided for chain link fencing.
- Provide access drive of sufficient width to accommodate emergency vehicles between Turf 2 and Turf 4. Fire Department requires 20-foot-wide pavement for emergency access drive. Provide drive of sufficient width from where the path leaves the parking lot. If existing light pole does not allow for 20-foot-wide pavement, re-route the drive, possibly relocated P11.
- Provide truck turn exhibit and demonstrate turnaround is sufficiently sized to accommodate emergency vehicles. T-turnaround provided. Truck turn exhibit provided.
- Is spectator viewing provided? Applicant stated in staff review that spectator seating may be provided but would be movable seating, not permanently installed.
- Provide specifications and cut sheets for exterior lighting fixtures (1285.08(b)(2)). Proposed LED light system provided.
- Provide photometric plan showing light contributions from all sources on the site and show footcandle readings five feet beyond property lines (1285.08(b)(3)). On the playing field, lighting ranges from 48 to 57 footcandles (fc), which is a bright level of lighting. By way of comparison, the brightest illumination allowed in the zoning code is under gas station canopies, where the max average is 15 fc and the maximum at any given point is 20 fc. An expanded photometric plan was provided showing the area impacted by proposed lighting. Property lines are not shown on the photometric plan; however, the underlying is an aerial photo, which shows lighting will carry significantly beyond Victory Park property lines. Lighting trespass will carry onto Lorain Road and Cook Road. The most directly impacted properties outside of Victory Park will be Primrose Schools and the former truck terminal to the west of it on Cook Road. One residential property located at 32055 Cook Road will experience light trespass. But also, given the height of the poles, and mounting heights of fixtures between 50-80 feet above grade, the light sources will be visible from a much wider area than the area directly impacted by illumination. It is recommended that the Planning Commission not act on the proposed lighting plan and that the applicant provide greater analysis on the plan and its potential for glare and negative impacts to surrounding businesses, residential properties and the road network.
- P11 and P12 appear to be new poles. Provide photometrics. Contributions from these poles are included in new photometric plan.
- Provide setback of proposed light poles from north and east property lines. Setbacks of light poles have been provided from the turf field, not from adjacent property lines.
- What hours will lights be terminated? Applicant stated in staff review that lighting would be used until 11 p.m. in the evening and it may be later if a game runs over.
- Do lights include speakers? There was reference in provided documents regarding “dynamic scene control including controls with music.” Applicant stated in staff review that lighting will not include speakers.

Planning Review

March 3, 2025

Project:	Victory Park Turf Fields
Location:	7777 Victory Lane
PPNs:	07-00-003-102-105, 07-00-003-102-106
District:	I-2 Light Industrial District

Project Summary:

Victory Park is owned by the City of North Ridgeville but operated by PMJ Park Holdings, LLC, a private entity. The property is zoned I-2 Light Industrial; however, the agreement between the city and operator establishes the permitted use as a sports park facility, including ballfields, parking, lighting, fencing and all of the other amenities in support of a sports park. The agreement also provides that prior to the installation of any changes, the city will review and approve any such installation in compliance with the codified ordinances including review by city boards, commissions and/or Council.

The proposal consists of the installation of two turf fields, lighting and site improvements at Victory Park. The new fields are identified as Turf 3 and Turf 4 on the site plans provided. Turf 1 and Turf 2, existing to the west of the new fields, were installed in the last several years without going through the required Planning Commission review or permitting processes.

The new fields are shown located in the northernmost area of the site with the existing turf fields to the west and the lake to the east. An existing asphalt access drive between the fields will be reduced in length and reconfigured to terminate in a cul-de-sac.

Twelve new pole lights are proposed. Ten surrounding the new fields are 80 feet high and two are 70 feet high. Pole height, fixture type and illumination levels all exceed code requirements; however, due to the nature of the development, Planning Commission has authority to grant approval of the lighting plan without the need for variances:

> *Because of their unique requirements for providing greater night-time visibility, their need to ensure public safety, and their limited hours of operation, stadiums (which include ball diamonds, playing fields, and tennis courts), amphitheaters, and similar uses are exempted from the exterior lighting standards as specified above. A lighting plan for these uses shall be established at the time that the request for exterior lighting is made and shall be subject to Planning Commission approval.* 1285.08(e)(3)

Recommendations:

- Provide grading plan (1243.05(b)). New fields encroach 10 feet into "Ex. 25' Side Setback." Proposed Turf 3 is located in close proximity to lake. Will east end of fields be graded? Is tree clearing involved? How will erosion be prevented. Light fixtures also shown in close proximity to lake.
- Field surface shown 415 feet (E/W) by 540 feet (N/S). Width of PPN ending -106 is approximately 425 feet wide. Can field size be slightly reduced to better fit into space, allowing for room between east

and west fields for emergency access and sufficiently setback from lake to alleviate grading and erosion concerns?

- Provide detail on any proposed fencing or netting. Barrier netting indicated in purchase proposal and contract document, but no fencing locations shown on site plan and no construction spec provided.
- Provide access drive of sufficient width to accommodate emergency vehicles between Turf 2 and Turf 4.
- Provide truck turn exhibit and demonstrate turnaround is sufficiently sized to accommodate emergency vehicles.
- Is spectator viewing provided?
- Provide specifications and cut sheets for exterior lighting fixtures (1285.08(b)(2)).
- Provide photometric plan showing light contributions from all sources on the site and show footcandle readings five feet beyond property lines (1285.08(b)(3)).
- P11 and P12 appear to be new poles. Provide photometrics.
- Provide setback of proposed light poles from north and east property lines.
- What hours will lights be terminated?
- Do lights include speakers? There was reference in provided documents regarding “dynamic scene control including controls with music.”

Planning Commission Comment Sheet

PROJECT INFORMATION

Convert grass soccer field into turf/install additional turf field	
Proposed project	
7777 Victory Lane	07-00-003-102-106
Location	Parcel number
March 11, 2025	February 27, 2025
Meeting date	Comments due

RECOMMENDATIONS

With regards to the emergency access road, below are the requirements per the Ohio Fire Code Rule 5 Fire Service Features:

(2) 503.2 Specifications. Fire apparatus access roads shall be installed and arranged in accordance with paragraphs (C)(2)(a)(503.2.1) to (C)(2)(h)(503.2.8) of this rule.
(a) 503.2.1 Dimensions. Fire apparatus access roads shall have an unobstructed width of not less than 20 feet (6096 mm), exclusive of shoulders, except for approved security gates in accordance with paragraph (C)(6)(503.6) of this rule, and an unobstructed vertical clearance of not less than 13 feet 6 inches (4115 mm).
(b) 503.2.2 Authority. The fire code official shall have the authority to require or permit modifications to the required access widths where they are inadequate for fire or rescue operations or where necessary to meet the public safety objectives of the jurisdiction.
(c) 503.2.3 Surface. Fire apparatus access roads shall be designed and maintained to support the imposed loads of fire apparatus and shall be surfaced so as to provide all-weather driving capabilities.
(d) 503.2.4 Turning radius. The required turning radius of a fire apparatus access road shall be determined by the fire code official.
(e) 503.2.5 Dead ends. Dead-end fire apparatus access roads in excess of 150 feet (45 720 mm) in length shall be provided with an approved area for turning around fire apparatus.

Please contact me with all questions and or concerns.

Asst. Chief Mike Uhnak
North Ridgeville Fire Department
(440) 653-6362

SUBMITTED BY

Mike Uhnak	Assistant Fire Chief
Administrative officer signature	Title

Planning Commission Bylaws Article V Section 2 – Administrative Review. All applications including those plans and maps submitted to the Commission shall be referred to Administrative Officers. Comments and recommendations by Administrative Officers, if any, shall be forwarded to the Secretary not later than ten (10) calendar days after receipt. Administrative Officers who have not acted within the allotted time shall be deemed to have concurred with plans as submitted.

Planning Commission Comment Sheet

PROJECT INFORMATION

Convert grass soccer field into turf/install additional turf field	
Proposed project	
7777 Victory Lane	07-00-003-102-106
Location	Parcel number
March 11, 2025	February 27, 2025
Meeting date	Comments due

RECOMMENDATIONS

This is a recap engineering comments from the meeting on Tuesday, March 2nd, 2025.

- The Geotechnical Engineering Report does not address the stabilization of utility trenches, with respect to the fly ash. Please address this in the Civil Plans.
- Need as-builts plans and the survey seems to be missing information. Update the existing survey map.
- On the grading plan make sure the slope into the pond is stabilized.
- Address the high ground water and all the fly ash fill some places it is very near the surface and up to over 10 ft of fill.
- Any fly ash that is excavated needs to be removed from the site and properly disposed of environmentally.
- The stormwater management needs to be updated including calculations.
- A grading plan is needed.
- Need to provide SWPPP and erosion control.
- A pre-construction meeting will be required before construction starts.
- All erosion control measures need to be in place and approved before construction can start.

SUBMITTED BY

Lori Birschbach-Tober	Assistant City Engineer
Administrative officer signature	Title

Planning Commission Bylaws Article V Section 2 – Administrative Review. All applications including those plans and maps submitted to the Commission shall be referred to Administrative Officers. Comments and recommendations by Administrative Officers, if any, shall be forwarded to the Secretary not later than ten (10) calendar days after receipt. Administrative Officers who have not acted within the allotted time shall be deemed to have concurred with plans as submitted.

Planning Commission Comment Sheet

PROJECT INFORMATION

Convert grass soccer field into turf/install additional turf field	
Proposed project	
7777 Victory Lane	07-00-003-102-106
Location	Parcel number
March 11, 2025	February 27, 2025
Meeting date	Comments due

RECOMMENDATIONS

Type comments here. Attach additional sheets as necessary.

Please provide Engineered stamped drawings for light poles.

SUBMITTED BY

Guy M. Fursdon	Chief Building Official
Administrative officer signature	Title

Planning Commission Bylaws Article V Section 2 – Administrative Review. All applications including those plans and maps submitted to the Commission shall be referred to Administrative Officers. Comments and recommendations by Administrative Officers, if any, shall be forwarded to the Secretary not later than ten (10) calendar days after receipt. Administrative Officers who have not acted within the allotted time shall be deemed to have concurred with plans as submitted.

Staff Meeting Bulletin

Meeting Date:	March 4, 2025
Project:	Victory Park**,** 7777 Victory Lane, North Ridgeville, OH 44039
Applicant:	PMJ Park Holdings, 7777 Victory Lane, North Ridgeville, OH 44039
Zoning:	I-2 Light Industrial District
In Attendance:	Kim Lieber, Planning & Development Director Lori Birschbach-Tober, Assistant City Engineer Toni Morgan, Assistant Law Director Guy Fursdon, Chief Building Official Jason Reese, Fire Chief Mike Uhnak, Assistant Fire Chief Tina Wieber, Deputy Clerk of Council Donald Mould, Victory Park Ohio Joe Borkey, Victory Park Ohio Steven Smetana, Field of Play

Project Introduction

- Don stated that the project was to complete the last two fields which were originally contemplated back in 2008 or 2009 with the last one currently being dirt and the second to last one currently being grass. He discussed that they wanted both of them to be turf because they could play throughout the year on the turf fields and currently had programming for soccer all year round. He stated that the intent was to have four turf fields to be able to have regional and national tournaments at Victory Park going forward and that it was a pretty simple design.

Staff Comments

- Kim asked regarding the access drive, if it was sufficiently wide and if there was a sufficiently wide turn around. She asked if there was enough space between the existing turf two and the proposed new turf for that. She stated that in discussing it with Mike, he stated that there was a 20-foot-wide requirement for an emergency access and there would also be a need for a turnaround. She stated that it looked like it was 10 feet wide currently.
- Don stated that the access lane was probably 10 or 12 feet asphalt, maybe a little bigger. He stated that the fire trucks were going to be tough to get down in there, but the ambulances should have no problem going in there. John stated that they had to follow the fire code because this would be a new improvement.
- Don stated that there was 20 feet of right-of-way between the roadway and the turf and there was plenty of room to get through there. He stated that for an ambulance it was going to be easy but a fire truck was a bigger truck and there was nothing down there that was going to catch fire, it was all turf and there weren't any buildings.
- John stated that the code would not dictate whether they were building something now, building something later or never building anything, they didn't know that. He stated that they would need 20 feet of hard space and they would have to have the turn around.
- Kim stated that she thought that was going to shift where the fields might go and wondered how much excess turf there was. She asked if the actual turf element could be shrunk a little bit without impacting the playability of the field in order to provide enough width for the 20 foot paved drive. She discussed that they couldn't really afford to go closer to the property line over on the east before it got even closer to the lake.
- Joe stated that the minimum that the playing area of the turf itself was 400 feet because 360 was the international lengths and then 20 feet on either side for baseline when they were putting the

baseball piece of that in. He stated that 400 was the minimum it could possibly be. Kim stated that on the dimensions, they were showing 415. She mentioned that they if they could reduce it by 15 feet that would give room for the access drive and might help the other side in proximity to the water.

- Mike asked if there were any structures on the north side. He asked if there were going to be any bleachers or spectator areas.
- Joe stated there would be possibly roll up the bleachers.
- Kim mentioned that in the future plan, they had a couple small buildings and asked if any of those were in that in-between area between the fields and where the path would go. Joe stated that no, they were up by turf one at the end of the parking lot.
- Mike asked what the width of the fields were in feet. Joe stated that the width of those two was around 500 north-south.
- Kim stated that she was curious to see a grading plan and stated that she kind of imagined whenever there was a body of water in close proximity to land, the land tended to slope and rarely did the land rise towards water. She asked if there was going to be fill on that side of the field.
- Steven stated that the plan was to get a lot of additional material on the north side that was going to be pushed and feathered across to grade. He mentioned that it would also be slightly pitched towards the lake.
- Lori stated that they were going to look at the grading very closely to make sure that it stayed very stable. She mentioned that also because they were putting in under drains, making sure that it was draining and draining off in the right direction and then there were two points that it was crossing to get into that pond and would want to make sure that those calculations were showing to ensure that the water was getting over there.
- Don stated that everything that was going to happen was really just an enhancement of what was existing there. He stated that the existing grades drained to the pond and that there was a little bit that went and tied into some of the under drains at the park but most of it was going that way.
- Lori asked if they were going to pick it up in the under drains. Don stated that yes, they would take it and collect it because he was going to have to do under drains to support the field to get rid of the water to contain it.
- Lori commented that she saw that the water table was pretty high and stated that she did have questions with the borings that were done. She mentioned that there was a soil report that was done for the buildings and while she knew they weren't putting buildings there, there was some fly ash that was anywhere from like below the ground all the way down to 10 or 12 feet. She asked how they were going to stabilize that field with that fly ash. She stated that recommendations were basically for the sub-base or concrete slab but asked how they were going to do it for the trenches. She asked that if they went there and dug a trench and they had four feet of fly ash and then there was no support at all on the side of the trenches, how were they going to put trenches in that fly ash.
- Steven stated that they were talking about doing a cement soil stabilization process for the sub-base.
- Lori asked how were they going to handle it when they went to dig it and how deep was it going to go, how were they going to make ensure stabilization and keep the walls so they were not coming in when they were doing the trenching and didn't have cross-contamination from that. Steven stated that they weren't going to go very deep with the drains and would try to keep them up as high as they could. He stated that as far as stabilization of trenches, they may have to just open up a little bit wider. He stated that he would have to talk to his guy Nick that handled the concrete stabilization, but that was something they would need to come up with a plan for.
- Lori stated that they would want to see that because Christine mentioned that there was a failure on the sanitary around there and she was wondering if that was because of the fly ash at one time that was in there and if the trenches were not properly handled back then for the other area. She stated that the big thing was how they were going to handle that fly ash and there was supposed to be some water monitoring especially since they were so close to the water and if they were contaminating

that water that fly ash being in there or the groundwater because they had some areas that had very high groundwater.

- Kim asked if there would be any tree clearing that would happen along the east edge adjacent to the lake. She stated that in the northeast corner, there were a lot of trees there and the little encroachment of water that kind of got close to the property line. She mentioned that they were probably clearing grading and then that was where they had light poles proposed. She asked how they would prevent erosion into the lake while they were doing all those earth disturbing activities.
- Joe stated that any part that had water on it was not their property and anything after the edge was not their property. Kim stated that they would be digging big holes in the ground and asked about the grading.
- Don stated that it was going to run to the west so that everything was still shedding to the east like it was laid out. He stated that the way those fields were laid out now, they currently break like 3/4 of the way to the west and that a little bit of water trickles to whatever kind of catch basins there are and the rest of it was all sheet drained to the east and where the line was with the property line. He stated that they would be back at least 15 feet according to the drawing and they might be back a little farther to accommodate what was asked about.
- Lori stated that before they even started on the earth moving, they would need their SWPP and erosion control before they would allow them to go in there and do any earthwork.
- Kim asked about fencing and netting and stated that she saw something written about them, but it wasn't on the drawings and asked where they went. Joe stated that it was definitely across the whole lakeside. He stated that how far up on one side it went, and then how far it came down on the top side, as soon as it comes to that final number, then they would know how much four-foot fence would be in between and then all across the west side and all across the east, those would be net.
- Kim asked how high they were. Stephen remarked 30 feet currently. Joe stated that once the netting stopped there would be a 4-foot fence from that point. Lori stated that there would be a 4-foot fence and then on the sides where it would stop, so however far you're taking the netting it would be at least along the whole east and maybe just a little bit going toward the north and south and then in between that they would have the 4 foot where they had the netting.
- Kim stated that the Commission would want to see what the light fixtures were going to look like. She stated that they wanted to see the setbacks of the poles from the property line. She discussed that they had shown them on a site plan, but there was no dimension of where they would be installed and that some of the concerns were about proximity to the property line and getting closer to the lake. She stated that a pole that was 80 feet high was going to have a pretty significant foundation to it and just trying to imagine how much digging and excavation there was going to be so close to the property line with the lake and the water, she had some concerns about how that would work out on that property line.
- Don stated that they were going to drill them and that it would be very minimal excavation. He mentioned that if a pole was 3-foot diameter or 4 feet, they would drill an 8 foot hole. And that way they wouldn't have the big hole, and it was much more stable to contain it like that than it was to do an open cut.
- Lori asked if they were going to put a vapor barrier between the field and the subbase or not the drainage layer. She stated that she knew it said to it with a concrete slab and asked if they were going to do that on their field. Stephen stated that they were just using the dirt and mixing it and pouring it in there and wet net, rolling it and gradient rolling.
- Lori stated that the fly ash had to be disposed of properly and that it could not be just put any place. She discussed that some concrete companies took some of that but that now it had to go into landfills that were limed.
- Kim stated that for the photometric plan, it was way above the lighting levels, the heights, the different fixture types, but it was the kind of use that allows Planning Commission to approve all of the contributing lighting sources. She mentioned that they still needed to show the information in a

way that would allow them to see all contributing lighting sources. She added that two of their poles weren't included in the photometric, the two 70-foot poles, they weren't shown in that grid, and they needed to show the lighting beyond the bounds of just the field. She explained that her area of greatest concern was the north side in terms of lighting crossing the property lines. She stated that if Planning Commission was going to approve lighting that far beyond the code, they needed to understand how it was going to impact those commercial properties abutting. Potential 80 foot very bright lights might change the kind of an end user that would be willing to go in that area, so they needed to be able to see the impact. She said that she didn't know if they looked at any lighting options that didn't have those pole 4 and pole 5, but given the fact that the illumination level was well above 50 foot candles and the poles were that close to the property line, even if there was no light directly shining north, she felt that it was probably going to be pretty bright at that property line and not every commercial property owner might be happy about that. She stated Planning Commission would need to know when they would be turned off and when was the latest game, just so they can kind of had an understanding of the times of the day. She added that she knew the turf fields were meant to increase longevity through the course of the year to be able to play more than grass fields and that was great but that just meant that the lights were on more and longer too. She stated that she didn't know if they could achieve their lighting objectives without those two poles, but it would be a consideration and wanted to know if they had thought about it.

- Stephen stated that they did have the updated light spill. Lori explained that the best thing for them was to show where their zero was. She stated that if they showed where they got down to zero as they went around it, then Planning Commission should be able to say whether or not it was going to affect them if they were showing where their photometrics went down to zero.
- Joe stated that regarding when the lights would still be on, like the rest of the park it would still be 11 o'clock as recommended by the City. He stated that once in a while if there was inclement weather and they had to continue to play, that once in a while it may close after that.
- Kim asked about a note regarding speakers in the lights. Joe stated that speakers were not in the lights and that would just be part of their normal media trailer stuff. He mentioned that what they were looking at as an option was to put some RGBW strips on some of those to do for some of the bigger tournaments and all that, they could have walk up music, they could have halftime shows and all that. He stated that the bulk of it would be coming directly down on the field.
- Joe stated that regarding the daycare, they closed in the afternoon, so even if it was illuminated at night, they were not there. Kim mentioned that there was also a house on the other side of the daycare.

Next Steps

- Updated plans will be submitted by March 7 for the March 11, 2025 Planning Commission meeting.

GEOSPORT LIGHTING
A TENCATE COMPANY

P1–P10 – 2 RGBW MOUNTED 50' ABG AIMED AT FIELD
DASHED LINE = FIXTURES TURNED OFF

Pole	x-loc	y-loc	height	Narrow	Medium	Wide	RGBW30	Total	kw
P1	-165	234	80ft		14	4		14-4	14.4
P10	-273	75	80ft		10	4		14	11.2
P11	-448	211	70ft		3	1		4	3.2
P12	-532	355	70ft		2	6		4-4	6.4
P2	0	234	80ft	8	6	4		14-4	14.2
P3	165	234	80ft		15	3		14-4	14.4
P4	273	75	80ft		10	4		14	11.2
P5	273	-75	80ft		10	4		14	11.2
P6	165	-208	80ft	1	8	5		14	11.2
P7	0	-208	80ft	2	8	4		14	11.1
P8	-165	-208	80ft	1	8	5		14	11.2
P9	-273	-75	80ft		10	4		14	11.2
other							20	20	11.1
Total				12	104	48	20	184	141.9

RGBW30
GeoSport RGBW 600W
Light Loss Factor = 0.950
Watts per luminaire = 557
Number luminaires used = 20
kw these luminaires = 11.1

Narrow
GeoSport Clir2 SV 800W
Light Loss Factor = 0.950
Watts per luminaire = 773
Number luminaires used = 12
kw these luminaires = 9.3

Wide
GeoSport Clir2 SV 800W
Light Loss Factor = 0.950
Watts per luminaire = 796
Number luminaires used = 48
kw these luminaires = 38.2

Medium
GeoSport Clir2 SV 800W
Light Loss Factor = 0.950
Watts per luminaire = 801
Number luminaires used = 104
kw these luminaires = 83.3

535' x 410' Soccer Area
252 points at z=3, sp 30ft by 30ft
HORIZONTAL FOOTCANDLES

Average	54
Maximum	60
Minimum	50
Avg:Min	1.07
Max:Min	1.20
Coef Var	0.05
UnifGrad	1.20

VICTORY SPORTS PARK, NORTH RIDGEVILLE, OH

Revision 5	04/25/25	Drawing 1 of 2	877–663–5968 WWW.GEOSPORTLIGHTING.COM

GEOSPORT LIGHTING
A TENCATE COMPANY

PINK LINE = PROPERTY LINE

Blanket Grid
1187 points at z=3, sp 30ft by 30ft
HORIZONTAL FOOTCANDLES

Average	3.1
Maximum	36.7
Minimum	0.0

VICTORY SPORTS PARK, NORTH RIDGEVILLE, OH

Revision 5	04/25/25	Drawing 2 of 2	877–663–5968 WWW.GEOSPORTLIGHTING.COM

High Performance LED System

CLIR RGBW

ENERGY EFFICIENT
ADVANCED CONTROL OPTIONS
INSTANT ON/OFF
LOW COST OF OWNERSHIP

Elevate the fan experience with GeoSport Lighting's state-of-the-art RGBW LED luminaire. This unique fixture offers capabilities to use full-spectrum color flooding and custom stadium effects. The possibilities for entertainment are endless; from community events, sports games, halftime shows, and post-game celebrations, our color enhancements with music synchronization capabilities make for an unforgettable and immersive experience. We offer pre-programmed effects, or you can work with GSL design engineers to create custom effects and scenes specific to your venue. We provide a touchscreen stadium software package to ensure effortless operation. Venues that have an existing DMX system will become a fully integrated extension of the GeoSport Lighting system.

FEATURES

HOUSING: Aluminum Powder Coated	**L70 TESTED:** >100,000 hours
VISOR: Standard/Extended	**SYSTEM WATTS:** 600W
FIXTURE WEIGHT: 32 lbs	**CCT:** RBG
CRI: >70Ra	**POWER FACTOR:** 0.90
INPUT VOLTAGE: 180v-240v	**OPERATING TEMP:** -30 C to +50 C
THD: <15%	**DRIVER:** Remote
SURGE PROTECTION: 10kA Current Surge*	**EPA:** 1.4
*additional 75 kA protection in remote enclosure	**IP RATING:** IP66 / IP68

RoHS DLC UL GSA Advantage!

geosportlighting.com | 1-877-730-4762

GEOSPORT LIGHTING
A TENCATE COMPANY

J:\25\6287A Victory Park Soccer Fields Improvement Plan\DRAWINGS\C6.0 MISC DETAILS.dwg, Plotted: Apr 25, 2025 - 3:12pm

REVISION	DATE:	BY:	DESCRIPTION:
	04-25-2025	APA	ISSUE TO CITY

DRAWN BY: CAT
CHECKED BY: APA

BRAMHALL
ENGINEERING AND SURVEYING COMPANY
801 MOORE ROAD AVON, OHIO 44011
(440) 934 - 7878 (440) 934 - 7879 FAX

PREPARED FOR:
VICTORY PARK OHIO
7777 VICTORY LANE
NORTH RDGEVILLE, OH 44039

MULTI-SPORT FIELDS AT VICTORY PARK
PHOTOMETRIC PLAN
CITY OF NORTH RIDGEVILLE, COUNTY OF LORAIN, STATE OF OHIO

SHEET
C6.5

JOB NO.
25-6287A

GEO SPORT LIGHTING
A TENCATE COMPANY

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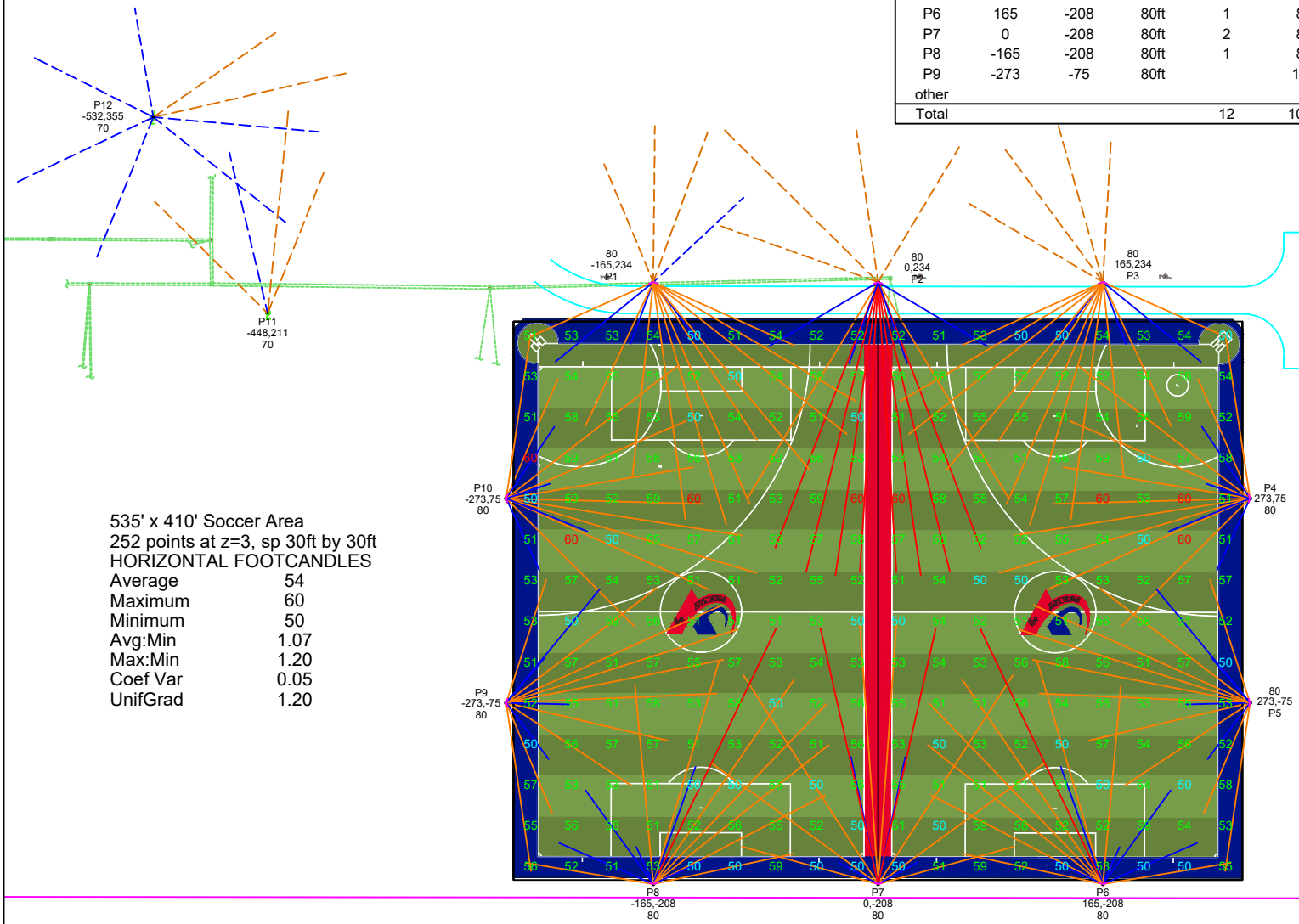
other							20	20	11.1
Total				12	104	48	20	184	141.9



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GEOSPORT LIGHTING
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VICTORY SPORTS PARK, NORTH RIDGEVILLE, OH

Revision 5	04/25/25	Drawing 1 of 2	877–663–5968 WWW.GEOSPORTLIGHTING.COM

GEO SPORT LIGHTING
A TENCATE COMPANY

PINK LINE = PROPERTY LINE

Blanket Grid
1187 points at z=3, sp 30ft by 30ft
HORIZONTAL FOOTCANDLES
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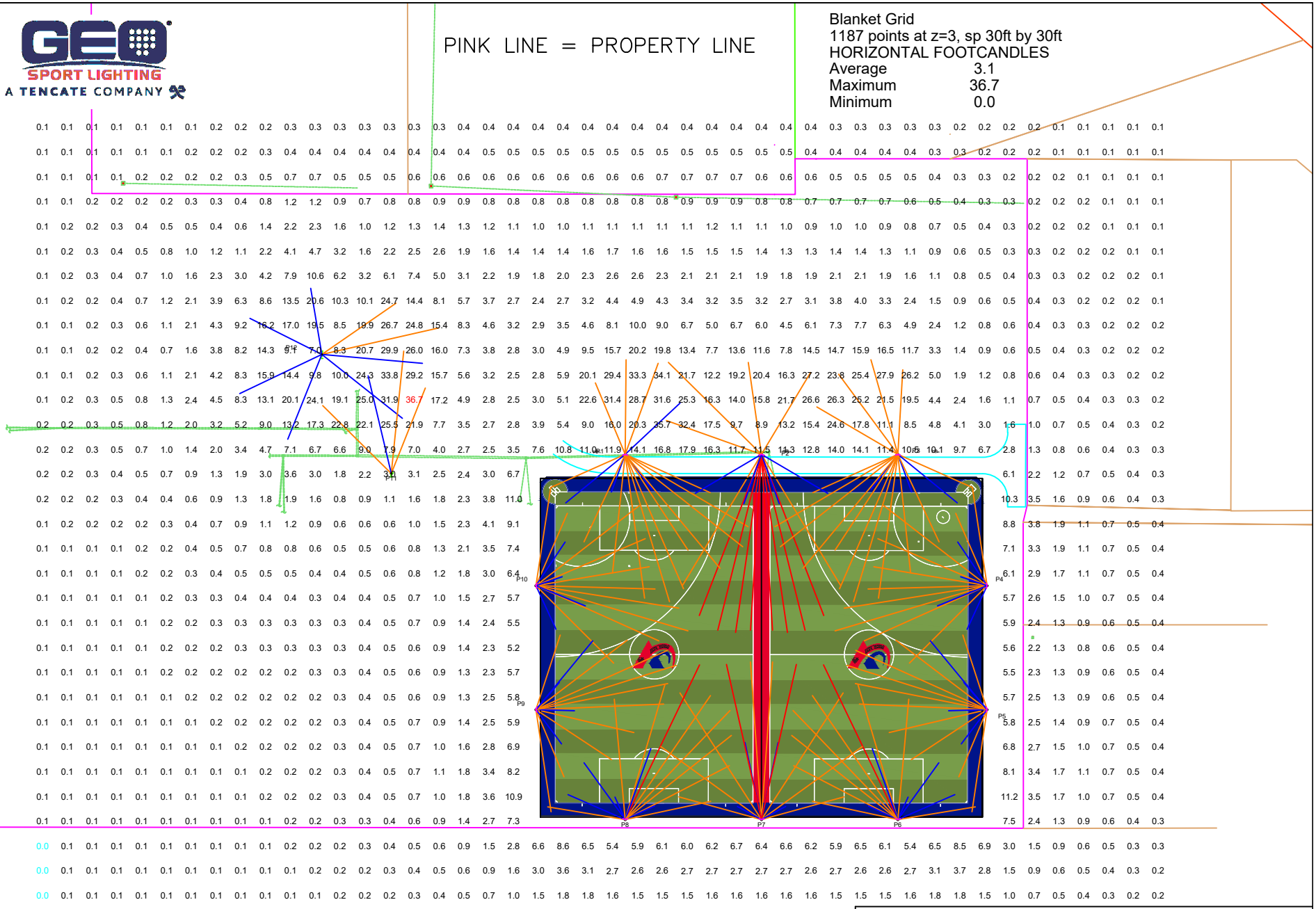


GEOSPORT LIGHTING
A TENCATE COMPANY

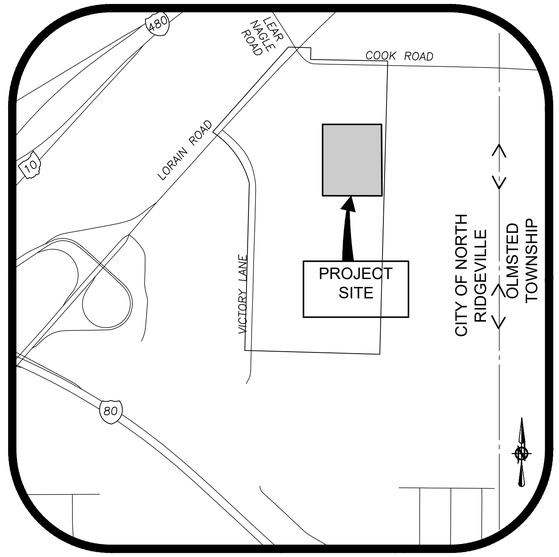
VICTORY SPORTS PARK, NORTH RIDGEVILLE, OH

Revision 5	04/25/25	Drawing 2 of 2	877-663-5968 WWW.GEOSPORTLIGHTING.COM

IMPROVEMENT PLANS
FOR
MULTI-SPORT FIELDS AT VICTORY PARK
CITY OF NORTH RIDGEVILLE, COUNTY OF LORAIN, STATE OF OHIO

LEGEND

- RIGHT–OF–WAY
- PROPERTY LINE
- CENTERLINE
- EX. SETBACK
- EASEMENT
- CENTERLINE DITCH/CREEK
- EX. TOP OF BANK/MOUND
- EX. TREE LANDSCAPE
- EX. FENCE
- EX. 1FT CONTOUR
- EX. 5FT CONTOUR
- EX. UNDERGROUND ELECTRIC
- EX. GAS
- EX. SANITARY
- EX. STORM
- EX. WATER
- EX. MANHOLE
- EX. CATCH BASIN
- EX. TREE (DECIDUOUS)
- EX. TREE (CONIFER)
- EX. ELECTRIC BOX
- EX. LIGHT POLE
- IRON PIN/PIPE FOUND
- PROP. STORM
- PROP. CENTERLINE DITCH/CREEK
- PROP. CATCH BASIN
- PROP. CLEANOUT
- PROP. LIGHT POLE
- PROP. TRENCH DRAIN



LOCATION MAP
NOT TO SCALE

INDEX OF SHEETS

TITLE SHEET.....C1.0
EXISTING CONDITIONS AND DEMO – OVERVIEW PLAN.....C2.0
EXISTING CONDITIONS AND DEMO – ENLARGED PLAN.....C2.1
PROPOSED SITE PLAN – OVERVIEW.....C3.0
PROPOSED SITE PLAN – ENLARGED.....C3.1
UTILITY PLAN.....C4.0
OVERALL GRADING PLAN.....C5.0
ENLARGED ROADWAY GRADING PLAN.....C5.1
MISCELLANEOUS DETAILS AND PHOTOMETRIC PLAN.....C6.0–6.5
VEHICLE TRACKING PLAN.....C7.0
STORMWATER POLLUTION PREVENTION PLAN.....C8.0
SWP3 NOTES & DETAILS.....C8.1–C8.3

APPROVAL ON BEHALF OF THE CITY OF NORTH RIDGEVILLE

DATE

CITY ENGINEER – CHRISTINA EAVENSON, P.E.

PLANS PREPARED BY

AARON P. APPELL, P.E. DATE
REGISTERED OHIO ENGINEER NO. E–75683

SURVEY NOTE:

A BOUNDARY SURVEY PURSUANT TO CHAPTER 4733–37 OF THE OHIO ADMINISTRATIVE CODE HAS NOT BEEN PERFORMED BY BRAMHALL ENGINEERING & SURVEYING COMPANY. THIS PLAN IS BASED UPON AVAILABLE COUNTY INFORMATION. BOUNDARY LINES ARE SHOWN PER RECORD SURVEY PREPARED BY MCSTEEN LAND SURVEYORS AND DATED APRIL 25, 2022.

UNDERGROUND UTILITIES
Contact Two Working Days Before You Dig
OHIO811.org Before You Dig
OHIO811, 8-1-1, or 1-800-362-2764
(Non–members must be called directly)

EXISTING UNDERGROUND UTILITIES NOTE:

THE SIZE & LOCATION, BOTH HORIZONTAL AND VERTICAL, OF THE UNDERGROUND UTILITIES SHOWN HEREON, HAVE BEEN OBTAINED BY A SEARCH OF AVAILABLE RECORDS. VERIFICATION BY FIELD OBSERVATION HAS BEEN CONDUCTED WHERE PRACTICAL. HOWEVER, BRAMHALL ENGINEERING AND SURVEYING COMPANY DOES NOT GUARANTEE THE COMPLETENESS NOR ACCURACY THEREOF.

PRELIMINARY PLANS FOR PLANNING COMMISSION

REVISION	DATE:	BY:	DESCRIPTION:
	04-25-2025	APA	ISSUE TO CITY

DRAWN BY: CAT
CHECKED BY: APA

BRAMHALL
ENGINEERING AND SURVEYING COMPANY
801 MOORE ROAD AVON, OHIO 44011
(440) 934 - 7878 (440) 934 - 7879 FAX

PREPARED FOR:
VICTORY PARK OHIO
7777 VICTORY LANE
NORTH RDGEVILLE, OH 44039

MULTI-SPORT FIELDS AT VICTORY PARK
TITLE SHEET
CITY OF NORTH RIDGEVILLE, COUNTY OF LORAIN, STATE OF OHIO

SHEET C1.0
JOB NO. 25-6287A

J:\25\6287A Victory Park Soccer Fields Improvement Plan\DRAWINGS\C1.0 TITLE SHEET.dwg, Plotted: Apr 25, 2025 - 3:09pm

GRAPHIC SCALE

0 80

40 160

(IN FEET)

SCALE: 1" = 80'

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HATCH LEGEND

- EX. ASPHALT PAVEMENT
- EX. CONCRETE PAVEMENT
- EX. PAVEMENT (TO BE REMOVED)

EXISTING STORM STRUCTURE TABLE

STRUCTURE NAME	RIM	INVERT(S)
EX-CB-1	RIM 778.79	18" HDPE (S) INV.: 776.14 8" HDPE (E) INV.: 776.29 8" HDPE (E) INV.: 776.24
EX-CB-2	RIM 779.03	18" HDPE (N) INV.: 775.13 24" HDPE (S) INV.: 776.49 8" HDPE (E) INV.: 776.53 8" HDPE (E) INV.: 775.13
EX-CB-3	RIM 782.12	24" HDPE (N) INV.: 774.62 24" HDPE (W) INV.: 774.62 18" HDPE (S) INV.: 777.12
EX-CB-4	RIM 782.09	24" HDPE (E) INV.: 774.59 24" HDPE (W) INV.: 779.59 18" HDPE (S) INV.: 776.34 4" PVC (S) INV.: 780.94
EX-CB-5	RIM 781.36	18" HDPE (N) INV.: 778.01 18" HDPE (S) INV.: 778.11 10" HDPE (E) INV.: 778.11 10" HDPE (E) INV.: 777.96
EX-CB-6	RIM 783.44	18" HDPE (N) INV.: 780.44 18" HDPE (S) INV.: 780.54
EX-CB-7	RIM 784.17	8" HDPE (S) INV.: 781.47 18" HDPE (N) INV.: 781.47 8" HDPE (S) INV.: 781.47

SEE SHEET C2.1 FOR EXISTING CONTOURS

8" PVC CASING FOR FUTURE WATER AND 12" PVC CASING FOR FUTURE SANITARY LATERAL PER PLAN

8" PVC CASING FOR FUTURE WATER AND 12" PVC CASING FOR FUTURE SANITARY LATERAL PER PLAN

LORAIN ROAD (100')

VICTORY LANE (60')

COOK ROAD (60')

"METHOD FIELD"

07-00-003-102-100
BLUE MARBLE VICTORY LANE, LLC
2.37 ACRES (REC.)

07-00-003-102-080
BKOH18 LLC
32635 LORAIN RD

07-00-003-102-093
BLUE MARBLE VICTORY LANE LLC
7725 VICTORY LN

07-00-003-102-064
MAX & AVERY LLC
32523 LORAIN RD

07-00-003-102-065
SGT CLEAN NORTH
CANTON HOLDINGS LLC
32499 LORAIN RD

07-00-003-102-102
NKLB RIDGEVILLE LLC
32435 COOK RD

07-00-003-102-104
COOK ROAD PROPERTIES LLC

07-00-003-102-045
BOBKOB 32425 LLC
32425 COOK RD

07-00-003-102-046
BOBKOB 32425 LLC

07-00-003-102-039
WEBERBRO PROPERTIES LLC

07-00-003-102-040
WEBERBRO PROPERTIES LLC
32323, 32325, 32327, 32329
COOK RD

07-00-003-102-027
STELIAN HRITCU & LIVIA M HRITCU

07-00-003-102-028
STELIAN HRITCU &
LIVIA M HRITCU

07-00-003-102-010
STELIAN HRITCU &
LIVIA M HRITCU

07-00-003-102-098
FOOTHOLD LLC
32121 COOK RD

07-00-003-102-099
BAMYNO LLC
32135 COOK RD

07-00-003-102-107
CITY OF NORTH RIDGEVILLE
7777 VICTORY LANE
39.83 ACRES (REC.)

07-00-003-102-106
CITY OF NORTH RIDGEVILLE
14.62 ACRES (REC.)

07-00-003-102-105
CITY OF NORTH RIDGEVILLE
7.05 ACRES (REC.)

07-00-003-102-097
LAKE BELLA INVESTMENTS LLC
65.01 ACRES (REC.)

TURF-1 EX. FIELD

TURF-2 EX. FIELD

SLF-1 EX. FIELD

SLF-2 EX. FIELD

SLF-3 EX. FIELD

SLF-4 EX. FIELD

D-1

D-2

D-3

EX. 8" SAN

EX. 12" WTR

EX. 4" GAS

EX. 18" STM

EX. 35' BUFFER STRIP

EX. 75' SIDE SETBACK

EX. INGRESS/EGRESS AND PARKING EASEMENT (RECORDING INFORMATION UNKNOWN)

EX. 30" STM

EX. 8" STM

EX. 25' SIDE SETBACK

EX. 12" WTR

EX. 8" SAN

EX. 25' SIDE SETBACK

EX. ASPHALT PATH

EX. 4" STM

EX. 24" STM

EX-CB-4

EX. LIGHT POLE

EX. BUILDING

EX-CB-6

EX-CB-7

EX-CB-5

EX-CB-3

EX-CB-2

EX-CB-1

EX. 10" STM

EX. TREE (TO BE REMOVED) (TYP.)

EX. PAVEMENT (TO BE REMOVED) (TYP.)

EX. MOUND (TO BE REMOVED)

EX. 3" STM (TBR)

EX. TREES (TO BE REMAIN)

EX. WOODS AND BRUSH (TO BE CLEARED AND GRUBBED)

EX. TOP OF BANK (TO BE REMOVED) (TYP.)

EX. 25' SIDE SETBACK

WATER SURFACE ELEVATION 776.19 AS MEASURED 04-15-2025

EX. WATER

REVISION	DATE:	BY:	DESCRIPTION:
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NORTH RDGEVILLE, OH 44039

MULTI-SPORT FIELDS AT VICTORY PARK
EXISTING CONDITIONS AND DEMO - OVERALL PLA N
CITY OF NORTH RIDGEVILLE, COUNTY OF LORAIN, STATE OF OHIO

SHEET C2.0

JOB NO. 25-6287A

J:\25\6287A Victory Park Soccer Fields Improvement Plan\DRAWINGS\C2.0 EXISTING CONDITIONS - OVERALL.dwg, Plotted: Apr 25, 2025 - 3:09pm

HATCH LEGEND

- EX. ASPHALT PAVEMENT
- EX. CONCRETE PAVEMENT
- EX. PAVEMENT (TO BE REMOVED)

SURVEY NOTE:

A BOUNDARY SURVEY PURSUANT TO CHAPTER 4733-37 OF THE OHIO ADMINISTRATIVE CODE HAS NOT BEEN PERFORMED BY BRAMHALL ENGINEERING & SURVEYING COMPANY. THIS PLAN IS BASED UPON AVAILABLE COUNTY INFORMATION. BOUNDARY LINES ARE SHOWN PER RECORD SURVEY PREPARED BY MCSTEEN LAND SURVEYORS AND DATED APRIL 25, 2022.

UNDERGROUND UTILITIES
Contact Two Working Days Before You Dig
OHIO811.org Before You Dig
OHIO811, 8-1-1, or 1-800-362-2764
(Non-members must be called directly)

EXISTING UNDERGROUND UTILITIES NOTE:

THE SIZE & LOCATION, BOTH HORIZONTAL AND VERTICAL, OF THE UNDERGROUND UTILITIES SHOWN HEREON, HAVE BEEN OBTAINED BY A SEARCH OF AVAILABLE RECORDS. VERIFICATION BY FIELD OBSERVATION HAS BEEN CONDUCTED WHERE PRACTICAL. HOWEVER, BRAMHALL ENGINEERING AND SURVEYING COMPANY DOES NOT GUARANTEE THE COMPLETENESS NOR ACCURACY THEREOF.

GRAPHIC SCALE
0 30 15 60
(IN FEET)
SCALE: 1" = 30'

EXISTING STORM STRUCTURE TABLE

STRUCTURE NAME	RIM	INVERT(S)
EX-CB-1	RIM 778.79	18" HDPE (S) INV.: 776.14 8" HDPE (E) INV.: 776.29 8" HDPE (E) INV.: 776.24
EX-CB-2	RIM 779.03	18" HDPE (N) INV.: 775.13 24" HDPE (S) INV.: 776.49 8" HDPE (E) INV.: 776.53 8" HDPE (E) INV.: 775.13
EX-CB-3	RIM 782.12	24" HDPE (N) INV.: 774.62 24" HDPE (W) INV.: 774.62 18" HDPE (S) INV.: 777.12
EX-CB-4	RIM 782.09	24" HDPE (E) INV.: 774.59 24" HDPE (W) INV.: 779.59 18" HDPE (S) INV.: 776.34 4" PVC (S) INV.: 780.94
EX-CB-5	RIM 781.36	18" HDPE (N) INV.: 778.01 18" HDPE (S) INV.: 778.11 10" HDPE (E) INV.: 778.11 10" HDPE (E) INV.: 777.96

REVISION	DATE:	BY:	DESCRIPTION:
	04-25-2025	APA	ISSUE TO CITY

DRAWN BY: CAT
CHECKED BY: APA

BRAMHALL
ENGINEERING AND SURVEYING COMPANY
801 MOORE ROAD AVON, OHIO 44011
(440) 934 - 7878 (440) 934 - 7879 FAX

PREPARED FOR:
VICTORY PARK OHIO
7777 VICTORY LANE
NORTH RDGEVILLE, OH 44039

MULTI-SPORT FIELDS AT VICTORY PARK
EXISTING CONDITIONS AND DEMO -ENLARGED PLAN
CITY OF NORTH RIDGEVILLE, COUNTY OF LORAIN, STATE OF OHIO

SHEET C2.1
JOB NO. 25-6287A

J:\25\6287A Victory Park Soccer Fields Improvement Plan\DRAWINGS\C2.1 EXISTING CONDITIONS - ENLARGED.dwg, Plotted: Apr 25, 2025 - 3:10pm

NOTES:

1. ALL DIMENSIONS ARE TAKEN FROM THE EDGE OF WALK, BACK OF CURB, FACE OF BUILDING UNLESS OTHERWISE STATED.
2. ALL PAVEMENT AND SITE WORK SHALL CONFORM TO O.D.O.T., AND CITY OF NORTH RIDGEVILLE STANDARD CONSTRUCTION DRAWINGS.
3. ALL EARTHWORK, SUBGRADE PREPARATION, & BACKFILL REQUIREMENTS SHALL BE MONITORED BY A CERTIFIED GEOTECHNICAL ENGINEER.
4. CONTRACTOR MUST SECURE ALL NECESSARY PERMITS PRIOR TO STARTING WORK.
5. IF THE CONTRACTOR, IN THE COURSE OF THE WORK, FINDS ANY DISCREPANCIES BETWEEN THE PLANS AND THE PHYSICAL CONDITIONS OF THE SITE, OR ANY ERRORS OR OMISSIONS IN THE PLANS OR IN THE LAYOUT AS GIVEN BY THE ENGINEER, IT SHALL BE HIS DUTY TO IMMEDIATELY INFORM THE ENGINEER, IN WRITING, AND THE ENGINEER WILL PROMPTLY VERIFY THE SAME. ANY WORK DONE AFTER SUCH A DISCOVERY, UNTIL AUTHORIZED, WILL BE AT THE CONTRACTOR'S RISK.
6. ALL CONSTRUCTION MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE TO THE STATE AND LOCAL GOVERNMENT AGENCY LATEST CONSTRUCTION SPECIFICATIONS AND DETAILS.
7. CONTRACTOR TO NOTIFY THE CITY OF NORTH RIDGEVILLE AND SITE OWNERS AUTHORIZED REPRESENTATIVE A MINIMUM OF SEVENTY TWO (72) HOURS BEFORE BEGINNING CONSTRUCTION.
8. THE CONTRACTOR SHALL MAINTAIN THE SITE IN A MANNER SO THAT WORKMEN AND THE PUBLIC SHALL BE PROTECTED FROM INJURY, AND ADJOINING PROPERTY BOTH PRIVATE & PUBLIC PROTECTED FROM DAMAGE.
9. ALL ADA SITE FEATURES SHALL BE CONSTRUCTED TO MEET ALL FEDERAL, STATE, AND LOCAL CODE.
10. SEE DETAILED LIGHTING SPECIFICATIONS BY GEO SPORT LIGHTING.
11. SEE FENCE SPECIFICATIONS BY OTHERS.
12. ELECTRICAL FEED AND DETAILS BY OTHERS.
13. EXISTING FLYASH CAP SHALL NOT BE DISTURBED OR PENETRATED. WHEN TRENCHING CONDUITS REQUIRES IMPACTING THE CAP, THE CONTRACTOR SHALL FOLLOW THE GUIDANCE AND REQUIREMENTS OF THE GEOTECHNICAL REPORT BY ECS, MIDWEST LLC APRIL 2023 OR LATEST VERSION. DRAINAGE PATTERNS SHALL GENERALLY BE MAINTAINED.

GRAPHIC SCALE
0 80
40 160
(IN FEET)
SCALE: 1" = 80'

HATCH LEGEND

PROP. ASPHALT PAVEMENT

PROP. CONCRETE PAVEMENT

VICTORY LANE (60')
LORAIN ROAD (100')
COOK ROAD (60')
R/W
P.L.

"METHOD FIELD"
07-00-003-102-100
BLUE MARBLE VICTORY LANE, LLC
2.37 ACRES (REC.)

07-00-003-102-093
BLUE MARBLE VICTORY LANE LLC
7725 VICTORY LN

07-00-003-102-080
BKOH18 LLC
32635 LORAIN RD

07-00-003-102-064
MAX & AVERY LLC
32523 LORAIN RD

07-00-003-102-065
SGT CLEAN NORTH
CANTON HOLDINGS LLC
32499 LORAIN RD

07-00-003-102-102
NKLB RIDGEVILLE LLC
32435 COOK RD

07-00-003-102-104
COOK ROAD PROPERTIES LLC

07-00-003-102-045
BOBKOB 32425 LLC
32425 COOK RD

07-00-003-102-046
BOBKOB 32425 LLC

07-00-003-102-039
WEBERBRO PROPERTIES LLC

07-00-003-102-040
WEBERBRO PROPERTIES LLC
32323, 32325, 32327, 32329
COOK RD

07-00-003-102-027
STELIAN HRITCU & LIVIA M HRITCU

07-00-003-102-028
STELIAN HRITCU &
LIVIA M HRITCU

07-00-003-102-010
STELIAN HRITCU &
LIVIA M HRITCU

07-00-003-102-098
FOOTHOLD LLC
32121 COOK RD

07-00-003-102-099
BAMYNO LLC
32135 COOK RD

07-00-003-102-107
CITY OF NORTH RIDGEVILLE
7777 VICTORY LANE
39.83 ACRES (REC.)

07-00-003-102-106
CITY OF NORTH RIDGEVILLE
14.62 ACRES (REC.)

07-00-003-102-105
CITY OF NORTH RIDGEVILLE
7.05 ACRES (REC.)

07-00-003-102-097
LAKE BELLA INVESTMENTS LLC
65.01 ACRES (REC.)

D-1
D-2
D-3

SLF-1
EX. FIELD

SLF-2
EX. FIELD

SLF-3
EX. FIELD

SLF-4
EX. FIELD
(TO BE CONVERTED TO TURF)
TURF-3

PROP. FIELD
TURF-4

TURF-1
EX. FIELD

TURF-2
EX. FIELD

915.39'

535.00'

535.0000'

410.00'

EX. 75' SIDE SETBACK

EX. 25' SIDE SETBACK

EX. INGRESS/EGRESS AND PARKING EASEMENT
(RECORDING INFORMATION UNKNOWN)

EX. ASPHALT PATH

EX. LIGHT POLE
(DO NOT DISTURB)

PROP. 20' EMERGENCY ACCESS ASPHALT PATH
560 L.F. ±

EMERGENCY TURNAROUND
(PER DETAIL PAV-8)
(SEE SHEET C6.3)

100' ± PROP. NETTING FENCE (TYP.)
(EAST AND WEST)

PROP. NETTING FENCE (TYP.)
550' ± (NORTH AND SOUTH)

PROP. LIGHT POLE (TYP.)

PROP. 4' BLACK CHAIN-LINK FENCE (TYP.)
(EAST AND WEST)

43'

49.25'

144-7778'

10'

P1 P2 P3 P4 P5 P6 P7 P8 P9 P10 P11 P12

J:\25\6287A Victory Park Soccer Fields Improvement Plan\DRAWINGS\C3.0 SITE PLANS - OVERALL.dwg, Plotted: Apr 25, 2025, 3:10pm

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BRAMHALL
ENGINEERING AND SURVEYING COMPANY
801 MOORE ROAD AVON, OHIO 44011
(440) 934 - 7878 (440) 934 - 7879 FAX

PREPARED FOR:
VICTORY PARK OHIO
7777 VICTORY LANE
NORTH RDGEVILLE, OH 44039

MULTI-SPORT FIELDS AT VICTORY PARK
SITE PLAN - OVERALL
CITY OF NORTH RIDGEVILLE, COUNTY OF LORAIN, STATE OF OHIO

SHEET
C3.0

JOB NO.
25-6287A

TURF-1
EX. FIELD

TURF-2
EX. FIELD

SLF-3
EX. FIELD

SLF-4
EX. FIELD
(TO BE CONVERTED TO TURF)
TURF-3

PROP. FIELD
TURF-4

EX. LIGHT POLE (DO NOT DISTURB)

EX. ASPHALT PATH

PROP. SWALE

PROP. CONC. PAVEMENT

PROP. 20' EMERGENCY ACCESS ASPHALT PATH 560 L.F. ±

PROP. TRENCH DRAIN

EMERGENCY TURNAROUND (PER DETAIL PAV-8) (SEE SHEET C6.3)

PROP. 20' ASPHALT PATH
(SEE SHEET C5.1 FOR PAVEMENT GRADING)

PROP. NETTING FENCE (TYP.)
550' ± (NORTH AND SOUTH)

100' ± PROP. NETTING FENCE (TYP.) (EAST AND WEST)

200'± PROP. 4' BLACK CHAIN-LINK FENCE (TYP.) (EAST AND WEST)

PROP. PORTABLE BARRIERS

535.00'

915.11'

410.00'

EX. 25' SIDE SETBACK

PROP. TOP OF BANK

EX. TOP OF BANK

EX. WOODS

PROP. LIGHT POLE (TYP.)

EX. WATER

WATER SURFACE ELEVATION 776.19 AS MEASURED 04-15-2025

07-00-003-102-105
CITY OF NORTH RIDGEVILLE
7.05 ACRES (REC.)

07-00-003-102-106
CITY OF NORTH RIDGEVILLE
14.62 ACRES (REC.)

07-00-003-102-097
LAKE BELLA INVESTMENTS LLC
65.01 ACRES (REC.)

07-00-003-102-028
STELIAN HRITCU & LIVIA M HRITCU

07-00-003-102-027
STELIAN HRITCU & LIVIA M HRITCU

07-00-003-102-010
STELIAN HRITCU & LIVIA M HRITCU

07-00-003-102-098
FOOTHOLD LLC
32121 COOK RD

EX. FENCE WITH GATE

EX. ASPH. PATH

EX. GRAV. PATH

EX. 12" PINES (11)

P1 P2 P3 P4 P5 P6 P7 P8 P9 P10 P11

GRAPHIC SCALE
0 15 30 60
(IN FEET)
SCALE: 1" = 30'

HATCH LEGEND

PROP. ASPHALT PAVEMENT

PROP. CONCRETE PAVEMENT

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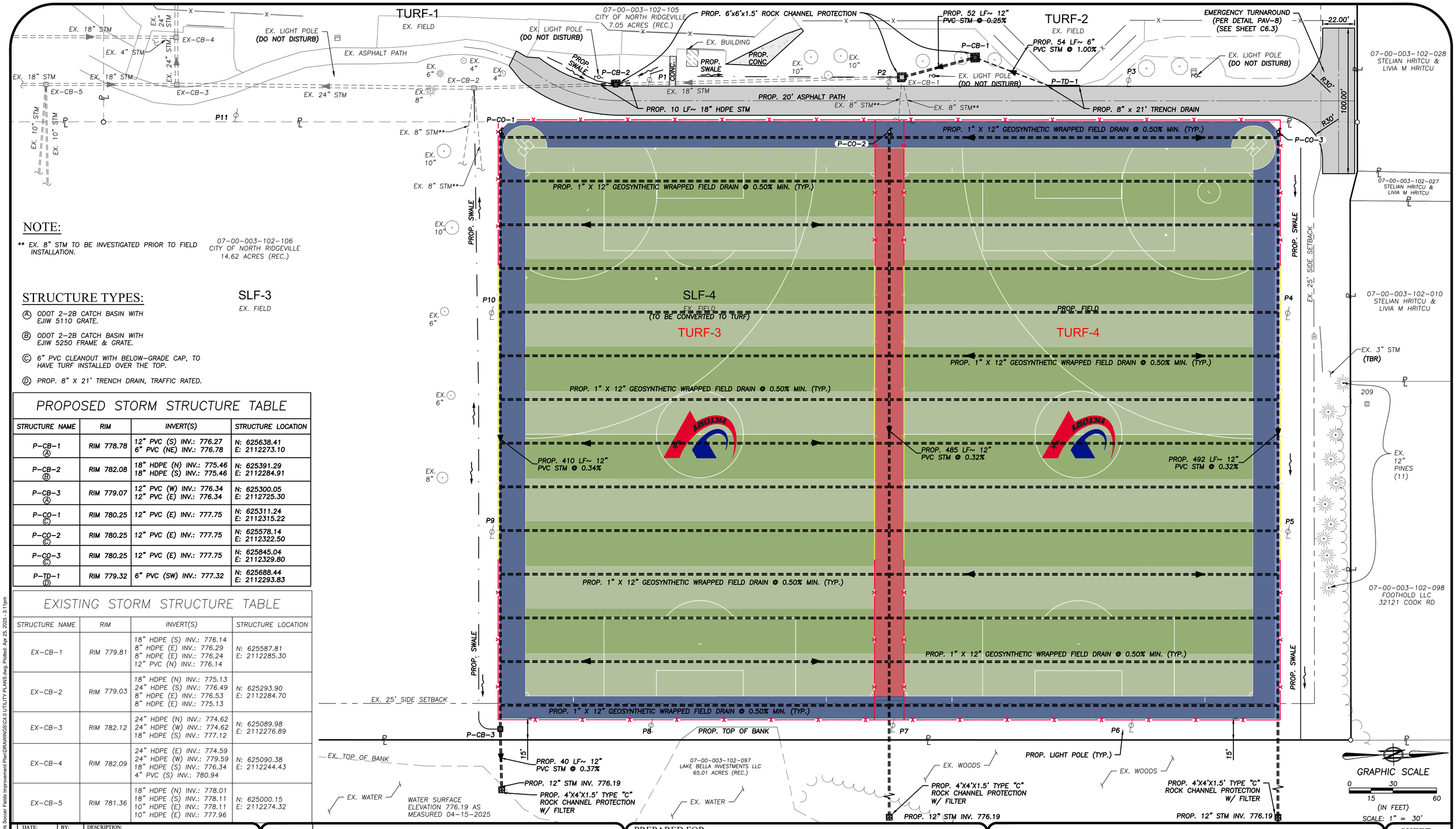
PREPARED FOR:
VICTORY PARK OHIO
7777 VICTORY LANE
NORTH RDGEVILLE, OH 44039

MULTI-SPORT FIELDS AT VICTORY PARK
SITE PLAN - ENLARGED
CITY OF NORTH RIDGEVILLE, COUNTY OF LORAIN, STATE OF OHIO

SHEET C3.1
JOB NO. 25-6287A

J:\25\6287A Victory Park Soccer Fields Improvement Plan\DRAWINGS\C3.1 SITE PLANS - ENLARGED.dwg Plotted: Apr 25, 2025 - 3:10pm



NOTE:

** EX. 8" STM TO BE INVESTIGATED PRIOR TO FIELD INSTALLATION.

STRUCTURE TYPES:

Ⓐ ODOT 2-2B CATCH BASIN WITH EJIW 5110 GRATE.

Ⓑ ODOT 2-2B CATCH BASIN WITH EJIW 5250 FRAME & GRATE.

Ⓒ 6" PVC CLEANOUT WITH BELOW-GRADE CAP, TO HAVE TURF INSTALLED OVER THE TOP.

Ⓓ PROP. 8" X 21' TRENCH DRAIN, TRAFFIC RATED.

PROPOSED STORM STRUCTURE TABLE

STRUCTURE NAME	RIM	INVERT(S)	STRUCTURE LOCATION
P-CB-1 Ⓐ	RIM 778.78	12" PVC (S) INV.: 776.27 6" PVC (NE) INV.: 776.78	N: 625638.41 E: 2112273.10
P-CB-2 Ⓑ	RIM 782.08	18" HDPE (N) INV.: 775.46 18" HDPE (S) INV.: 775.46	N: 625391.29 E: 2112284.91
P-CB-3 Ⓐ	RIM 779.07	12" PVC (W) INV.: 776.34 12" PVC (E) INV.: 776.34	N: 625300.05 E: 2112725.30
P-CO-1 Ⓒ	RIM 780.25	12" PVC (E) INV.: 777.75	N: 625311.24 E: 2112315.22
P-CO-2 Ⓒ	RIM 780.25	12" PVC (E) INV.: 777.75	N: 625578.14 E: 2112322.50
P-CO-3 Ⓒ	RIM 780.25	12" PVC (E) INV.: 777.75	N: 625845.04 E: 2112329.80
P-TD-1 Ⓓ	RIM 779.32	6" PVC (SW) INV.: 777.32	N: 625688.44 E: 2112293.83

EXISTING STORM STRUCTURE TABLE

STRUCTURE NAME	RIM	INVERT(S)	STRUCTURE LOCATION
EX-CB-1	RIM 779.81	18" HDPE (S) INV.: 776.14 8" HDPE (E) INV.: 776.29 8" HDPE (E) INV.: 776.24 12" PVC (N) INV.: 776.14	N: 625587.81 E: 2112285.30
EX-CB-2	RIM 779.03	18" HDPE (N) INV.: 775.13 24" HDPE (S) INV.: 776.49 8" HDPE (E) INV.: 776.53 8" HDPE (E) INV.: 775.13	N: 625293.90 E: 2112284.70
EX-CB-3	RIM 782.12	24" HDPE (N) INV.: 774.62 24" HDPE (W) INV.: 774.62 18" HDPE (S) INV.: 777.12	N: 625089.98 E: 2112276.89
EX-CB-4	RIM 782.09	24" HDPE (E) INV.: 774.59 24" HDPE (W) INV.: 779.59 18" HDPE (S) INV.: 776.34 4" PVC (S) INV.: 780.94	N: 625090.38 E: 2112244.43
EX-CB-5	RIM 781.36	18" HDPE (N) INV.: 778.01 18" HDPE (S) INV.: 778.11 10" HDPE (E) INV.: 778.11 10" HDPE (E) INV.: 777.96	N: 625000.15 E: 2112274.32

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PREPARED FOR:
VICTORY PARK OHIO
7777 VICTORY LANE
NORTH RDGEVILLE, OH 44039

MULTI-SPORT FIELDS AT VICTORY PARK
UTILITY PLAN
CITY OF NORTH RIDGEVILLE, COUNTY OF LORAIN, STATE OF OHIO

SHEET C4.0

JOB NO. 25-6287A

J:\25\6287A Victory Park Soccer Fields Improvement Plan\DRAWINGS\C4.0 UTILITY PLANS.dwg Plotted: Apr 25, 2025 - 3:11pm

GRADING CALL OUT LEGEND

- 650.0 (HOLD) / EST (PROP) — SPOT GRADE ELEVATION
- ×650.00 — EXISTING SPOT GRADE ELEVATION
- ×(650.00) — PROPOSED SPOT GRADE ELEVATION
- ×F/L (650.50) — PROPOSED FLOW LINE ELEVATION
- ×RIM: (650.00) — PROPOSED RIM ELEVATION
- 649 — EX. 1FT CONTOUR
- 650 — EX. 5FT CONTOUR
- 650 — PROP. MAJOR CONTOUR
- 649 — PROP. MINOR CONTOUR

GRAPHIC SCALE
0 30
15 60
(IN FEET)
SCALE: 1" = 30'

TURF-1
EX. FIELD
EX. ASPHALT PATH
07-00-003-102-105
CITY OF NORTH RIDGEVILLE
7.05 ACRES (REC.)
TURF-2
EX. FIELD
PROP. 20' ASPHALT PATH
(SEE SHEET C5.1 FOR PAVEMENT GRADING)
SLF-3
EX. FIELD
SLF-4
EX. FIELD
(TO BE CONVERTED TO TURF)
TURF-3
PROP. FIELD
TURF-4
07-00-003-102-106
CITY OF NORTH RIDGEVILLE
14.62 ACRES (REC.)
HIGH POINT
L.P.
H.P.
EX. 25' SIDE SETBACK
EX. TOP OF BANK
EX. WATER
WATER SURFACE
ELEVATION 776.19 AS
MEASURED 04-15-2025
07-00-003-102-097
LAKE BELLA INVESTMENTS LLC
65.01 ACRES (REC.)
07-00-003-102-028
STELIAN HRITCU &
LIVIA M HRITCU
07-00-003-102-027
STELIAN HRITCU &
LIVIA M HRITCU
07-00-003-102-010
STELIAN HRITCU &
LIVIA M HRITCU
07-00-003-102-098
FOOTHOLD LLC
32121 COOK RD
EX. 25' SIDE SETBACK
EX. 12" PINES (11)
PROP. LIGHT POLE (TYP.)
EX. WOODS
EX. WATER
-0.50%
-0.53%

DATE:	BY:	DESCRIPTION:
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DRAWN BY: GEW

CHECKED BY: APA

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PREPARED FOR:

VICTORY PARK OHIO
7777 VICTORY LANE
NORTH RDGEVILLE, OH 44039

MULTI-SPORT FIELDS AT VICTORY PARK
GRADING PLAN
CITY OF NORTH RIDGEVILLE, COUNTY OF LORAIN, STATE OF OHIO

SHEET C5.0

JOB NO. 25-6287A

J:\25\6287A Victory Park Soccer Fields Improvement Plan\DRAWINGS\C5.0 GRADING PLAN.dwg, Plotted: Apr 25, 2025 - 3:11pm

TURF-1

07-00-003-102-105
CITY OF NORTH RIDGEVILLE
7.05 ACRES (REC.)

EX. FIELD

EX. ASPHALT PATH

EX. GRAVEL

EX. CONCRETE

EX. FENCE

PROP. EXPANSION JOINT

PROP. CONCRETE

PROP. CONC. WALK

PROP. SWALE

EX. SHED

EX. LIGHT POLE (TYP.)

07-00-003-102-106
CITY OF NORTH RIDGEVILLE
14.62 ACRES (REC.)

PROP. 20' ASPHALT PATH

PROP. LIGHT POLE (TYP.)

MATCHLINE A

SLF-4
EX. FIELD
(TO BE CONVERTED TO TURF)
TURF-3

TURF-2
EX. FIELD

07-00-003-102-105
CITY OF NORTH RIDGEVILLE
7.05 ACRES (REC.)

EX. RETENTION BASIN
(OUTLET SUBMERGED. CONTRACTOR TO CLEAN OUT AND REESTABLISH AS REQUIRED.)

PROP. 8" X 21' TRENCH DRAIN

PROP. 20' ASPHALT PATH

PROP. LIGHT POLE (TYP.)

EMERGENCY TURNAROUND
(PER DETAIL PAV-8)

07-00-003-102-028
STELIAN HRITCU &
LIVIA M HRITCU

PROP. FIELD
TURF-4

07-00-003-102-106
CITY OF NORTH RIDGEVILLE
14.62 ACRES (REC.)

MATCHLINE A

GRADING CALL OUT LEGEND

- SPOT GRADE ELEVATION
- EXISTING SPOT GRADE ELEVATION
- PROPOSED SPOT GRADE ELEVATION
- PROPOSED FLOW LINE ELEVATION
- PROPOSED RIM ELEVATION
- EX. 1FT CONTOUR
- EX. 5FT CONTOUR
- PROP. MAJOR CONTOUR
- PROP. MINOR CONTOUR

GRAPHIC SCALE
0 5' 10' 20'
(IN FEET)
SCALE: 1" = 10'

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PREPARED FOR:

VICTORY PARK OHIO
7777 VICTORY LANE
NORTH RDGEVILLE, OH 44039

MULTI-SPORT FIELDS AT VICTORY PARK
ENLARGED ACCESS PATH GRADING PLAN
CITY OF NORTH RIDGEVILLE, COUNTY OF LORAIN,
STATE OF OHIO

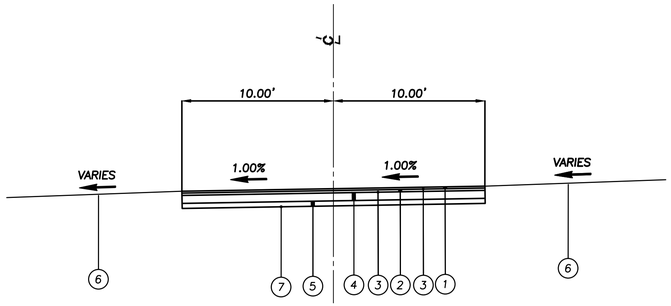
SHEET
C5.1

JOB NO.
25-6287A

J:\25\6287A Victory Park Soccer Fields Improvement Plan\DRAWINGS\C5.1 ENLARGED ACCESS PATH GRADING PLAN.dwg, Plotted: Apr 25, 2025 - 3:11pm

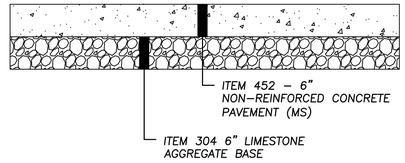
LEGEND

1. ODOT ITEM 441 ASPHALT SURFACE COURSE, TYPE 1 (448), PG 64-22, T=1-1/4"
2. ODOT ITEM 441 ASPHALT INTERMEDIATE COURSE, TYPE 2 (448), PG 64-22 T=1-3/4"
3. ODOT ITEM 407 TACK COAT NON-TRACKING TACK COAT, 0.06 GAL/SY AVERAGE
4. ODOT ITEM 301 ASPHALT BASE, PG 64-22, T=5"
5. ODOT ITEM 304 LIMESTONE AGGREGATE BASE, T=4"
6. ODOT ITEM 659 COMPACTED TOPSOIL, T=4", SEEDING AND MULCHING
7. ODOT ITEM 204 SUBGRADE COMPACTION



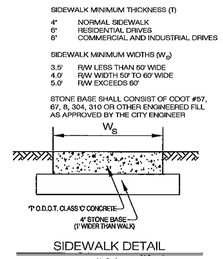
APHALT PATH TYPICAL SECTION

-NOT TO SCALE-



CONCRETE PAVEMENT SECTION

N.T.S.



SIDEWALK DETAIL

No Scale

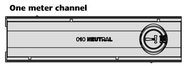
TRENCH DRAIN DETAILS

-OR APPROVED EQUAL-

ACO DRAIN

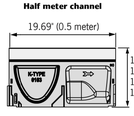
KlassikDrain - K200 Galvanized steel edge rail channel system

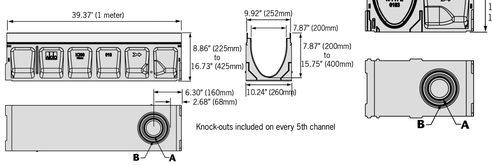
One meter channel



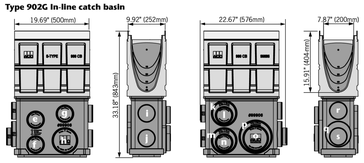
Inside view of channel - showing channel ID number and knockout if applicable (every 5th channel)

Half meter channel





Type 902G In-line catch basin



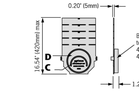
Total capacity = 19 gallons

Outlet flow rates

Outlet	Product	Outlet size (Sch. 40)	Invert Depth	GPM	CFS
A	Bottom outlet - K2-00	4" round	7.87"	153	0.34
A	Bottom outlet - K2-040	4" round	15.75"	216	0.48
B	Bottom outlet -K2-00	6" round	7.87"	344	0.77
B	Bottom outlet - K2-040	6" round	15.75"	486	1.08
C	End outlet - K2-00	4" round	7.87"	132	0.29
C	End outlet - K2-40	4" round	15.75"	202	0.45
D	End outlet - K2-10	6" round	9.84"	320	0.71
D	End outlet - K2-40	6" round	15.75"	437	0.97
E	Type K2-902G	4" round	25.33"	263	0.59
F	Type K2-902G	4" round	31.83"	297	0.66
G	Type K2-902G	4" round	23.76"	254	0.57
H	Type K2-902G	6" round	31.83"	658	1.47
I	Type K2-902G	4" round	23.91"	255	0.57
J	Type K2-902G	4" round	30.40"	290	0.65
K	Type K2-902G	6" round	24.68"	570	1.27
L	Type K2-902G	4" round	24.13"	256	0.57
M	Type K2-902G	6" round	31.82"	658	1.47
N	Type K2-902G	4" round	31.26"	294	0.66
O	Type K2-902G	6" round	31.26"	651	1.45
P	Type K2-902G	8" round	31.82"	1149	2.56
Q	Type K2-902G	6" round	30.32"	640	1.43
R	Type K2-902G	4" round	23.19"	251	0.56
S	Type K2-902G	4" round	29.90"	288	0.64

Note: These are the pipe flow rates at the specified outlet, **NOT** channel flow rates. "Catch basin flow rates are without trash bucket - using trash bucket reduces flow.

End Cap



April 2018

www.ACODrain.us

ACO Specification Information

ACO DRAIN

KlassikDrain - K200 Galvanized steel edge rail channel system

Description	Part No.	Invert inches²	Invert mm²	Wgt Lbs.
K2-00 Neutral channel - 39.37" (1m)[1]	**75041**	**7.87**	**200**	**83.6**
K2.1 Sloped channel - 39.37" (1m)	**75001**	8.07	205	83.6
K2-2 Sloped channel - 39.37" (1m)	**75002**	8.27	210	84.7
K2-3 Sloped channel - 39.37" (1m)	**75003**	8.46	215	85.8
K2.4 Sloped channel - 39.37" (1m)	**75004**	8.66	220	86.9
K2-5 Sloped channel - 39.37" (1m)[2]	**75005**	8.86	225	88.0
K2-6 Sloped channel - 39.37" (1m)	**75006**	9.06	230	89.1
K2-7 Sloped channel - 39.37" (1m)	**75007**	9.25	235	90.2
K2-8 Sloped channel - 39.37" (1m)	**75008**	9.45	240	91.3
K2-9 Sloped channel - 39.37" (1m)	**75009**	9.65	245	92.4
K2-10 Sloped channel - 39.37" (1m)[2]	**75010**	9.84	250	93.5
K2-010 Neutral channel - 39.37" (1m)[2]	**75043**	**9.84**	**250**	**93.5**
K2-0103 Neutral channel - 19.69" (0.5m)[2]	**75044**	**9.84**	**250**	**56.0**
K2-11 Sloped channel - 39.37" (1m)	**75011**	10.04	255	94.6
K2-12 Sloped channel - 39.37" (1m)	**75012**	10.24	260	95.7
K2-13 Sloped channel - 39.37" (1m)	**75013**	10.43	265	96.8
K2-14 Sloped channel - 39.37" (1m)	**75014**	10.63	270	97.9
K2-15 Sloped channel - 39.37" (1m)[2]	**75015**	10.83	275	99.0
K2-16 Sloped channel - 39.37" (1m)	**75016**	11.02	280	100.1
K2-17 Sloped channel - 39.37" (1m)	**75017**	11.22	285	101.2
K2-18 Sloped channel - 39.37" (1m)	**75018**	11.41	290	102.3
K2-19 Sloped channel - 39.37" (1m)	**75019**	11.61	295	103.4
K2-20 Sloped channel - 39.37" (1m)[2]	**75020**	11.81	300	104.5
K2-020 Neutral channel - 39.37" (1m)[2]	**75045**	**11.81**	**300**	**104.5**
K2-0203 Neutral channel - 19.69" (0.5m)[2]	**75046**	**11.81**	**300**	**64.0**
K2-21 Sloped channel - 39.37" (1m)	**75021**	12.01	305	105.6
K2-22 Sloped channel - 39.37" (1m)	**75022**	12.20	310	106.7
K2-23 Sloped channel - 39.37" (1m)	**75023**	12.40	315	107.8
K2-24 Sloped channel - 39.37" (1m)	**75024**	12.60	320	108.9
K2-25 Sloped channel - 39.37" (1m)[2]	**75025**	12.80	325	110.0
K2-26 Sloped channel - 39.37" (1m)	**75026**	12.99	330	111.1
K2-27 Sloped channel - 39.37" (1m)	**75027**	13.19	335	112.2

Description	Part No.	Invert inches²	Invert mm²	Wgt Lbs.
K2-28 Sloped channel - 39.37" (1m)	**75028**	13.39	340	113.3
K2-29 Sloped channel - 39.37" (1m)	**75029**	13.58	345	114.4
K2-30 Sloped channel - 39.37" (1m)[2]	**75030**	13.78	350	115.5
K2-030 Neutral channel - 39.37" (1m)[2]	**75047**	**13.78**	**350**	**115.5**
K2-0303 Neutral channel - 19.69" (0.5m)[2]	**75048**	**13.78**	**350**	**68.0**
K2-31 Sloped channel - 39.37" (1m)	**75031**	13.98	355	116.6
K2-32 Sloped channel - 39.37" (1m)	**75032**	14.17	360	117.7
K2-33 Sloped channel - 39.37" (1m)	**75033**	14.37	365	118.8
K2-34 Sloped channel - 39.37" (1m)	**75034**	14.57	370	119.9
K2-35 Sloped channel - 39.37" (1m)[2]	**75035**	14.76	375	121.0
K2-36 Sloped channel - 39.37" (1m)	**75036**	14.96	380	122.1
K2-37 Sloped channel - 39.37" (1m)	**75037**	15.16	385	123.2
K2-38 Sloped channel - 39.37" (1m)	**75038**	15.35	390	124.3
K2-39 Sloped channel - 39.37" (1m)	**75039**	15.55	395	125.4
K2-40 Sloped channel - 39.37" (1m)[2]	**75040**	15.75	400	126.5
K2-040 Neutral channel - 39.37" (1m)[2]	**75049**	**15.75**	**400**	**126.5**
K2-0403 Neutral channel - 19.69" (0.5m)[2]	**75050**	**15.75**	**400**	**77.0**
K2901G inline catch basin - 19.69" (0.5m)[2]	**94611**	32.81	833.3	68.0
K2621G catch basin - 19.69" (0.5m)[2]	**94620**	37.33	948.1	91.0
K2631G catch basin - 19.69" (0.5m)[2]	**94633**	49.33	1252.9	101.0
K2-Series 600 Optional plastic riser	**99902**	-	-	10.0
Foul air trap - fits both 900 & 600 series basins	**90854**	-	-	1.2
Universal end cap	**96821**	15.71	399	1.4
Debris strainer for 8" bottom knockout	**93488**	-	-	0.2
K2-installation device	**97478**	-	-	2.8
Grate removal tool	**01318**	-	-	0.3
K2-QuickLok locking bar	**10457**	-	-	0.5

Notes:
1. This channel offers a bottom knockout feature; 4" & 6" round
2. Inverts shown are for the male end; for female invert depth subtract 5mm (~0.2") from the male invert (except for neutral channels, where it will be same as male invert). To calculate the overall channel depth add 25mm (~1.0") to invert depth.
3. This catch basin kit includes a polymer concrete top, removable Quicklok locking bar, trash bucket and plastic base. Select an appropriate grate.
4. This catch basin kit includes a polymer concrete top, removable Quicklok locking bar, deep trash bucket, plastic riser and plastic base. Select an appropriate grate.

Specifications

General
The surface drainage system shall be ACO Drain K200 complete with gratings secured with 'QuickLok' locking as manufactured by ACO, Inc. or approved equal.

Materials
The trench system bodies shall be manufactured from polyester polymer concrete with the minimum properties as follows:

Compressive strength:	14,000 psi
Flexural strength:	4,000 psi
Water absorption	0.07%
Frost proof	YES
Salt proof	YES
Dilute acid and alkali resistant	YES

The nominal clear opening shall be 8" (200mm) with overall width of 10.24" (260mm). Precast units shall be manufactured with either an invert slope of 0.5% or with neutral invert and have a wall thickness of at least 0.50" (13mm). Each unit will feature a partial radius in the trench bottom and a male to female interconnecting end profile. Units shall have horizontal cast in anchoring keys on the outside wall to ensure maximum mechanical bond to the surrounding bedding material and pavement surface. The galvanized steel edge rail will be integrally cast in by the manufacturer to ensure maximum homogeneity between polymer concrete body and edge rail. Each edge rail shall be at least 3/32" (2.5mm) thick.

Grates
Grates shall be specified. See separate ACO Spec Info grate sheets for details. After removal of grates and 'QuickLok' bar there shall be uninterrupted access to the trench to aid maintenance.

Installation
The trench drain system shall be installed in accordance with the manufacturer's installation instructions and recommendations.

ACO, Inc.
Northeast Sales Office
9470 Pinecone Drive
Mentor, OH 44060
Tel: (440) 639-7230
Toll free: (800) 543-4764
Fax: (440) 639-7235

West Sales Office
825 W. Beechcraft St.
Casa Grande, AZ 85122
Tel: (520) 421-9988
Toll Free: (888) 490-9552
Fax: (520) 421-9899

Southeast Sales Office
4211 Pleasant Road
Fort Mill, SC 29708
Toll free: (800) 543-4764
Fax: (803) 802-1063

Electronic Contact:
info@ACODrain.us
www.ACODrain.us

SPEC INFO

© April 2018 ACO, Inc. This information is believed to be accurate but it is not guaranteed to be so. We cannot assume liability for results that buyer obtains with our product since conditions of use are beyond the control of the company. It is the customer's responsibility to evaluate suitability and safety of product for his own use. ACO, Inc. reserves the right to change the product and specifications without notice.

April 2018

www.ACODrain.us

ACO Specification Information

ACO DRAIN

Type 660D Ductile iron slotted grate

Product Features

- Certified to EN 1433 Load Class C - 56,000 lbs. - 968 psi
- Uses 'DrainLok' boltless locking system
- Suitable for use with K200, KS200, and H200KS-13 channels
- Manufactured from ductile iron to ASTM A 536-84 - Grade 65-45-12
- E- coated for improved resistance against rust

Specifications

General
The surface drainage system shall be ACO Drain K200, KS200, and H200K-13 channels*, complete with ACO Type 660D ductile iron slotted grate with 'DrainLok' locking as manufactured by ACO Polymer Products, Inc. or similar approved.

Materials
The covers shall be manufactured from ductile iron and have ***minimum*** properties as follows:

- ***Independently certified to meet Load Class C to EN 1433 - 56,000 lbs - 967 psi***
- ***Ductile iron to ASTM A 536-84 - Grade 65-45-12***
- ***Intake area of 56.4 sq. in. (363.86 cm²) per half meter of grate***

The overall width of 9.37" (238mm) and overall length of 19.69" (500mm). Slots measure at 0.47" (11.93mm) by 2.6" (66.04mm).

Installation
The trench drain system and grates shall be installed in accordance with the manufacturer's installation instructions and recommendations.

* delete as appropriate

August 2017

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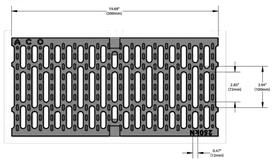
ACO

ACO Specification Information

ACO DRAIN

Type 660D Ductile iron slotted grate

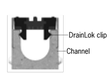
Plan view



Side elevation

Description	Part No.	Length Inches (mm)	Width Inches (mm)	Weight lbs.
DrainLok grate Type 660D Ductile iron slotted grate	**142177**	19.69 (500)	9.41 (239)	18.0

'DrainLok' locking mechanism



ACO DrainLok™ is a patented, boltless locking system that removes the need for bolts and bars and improves the hydraulic capacity of the channel. The DrainLok™ mechanism simply clips into the channel edge rail for rapid installation. ACO DrainLok™ grates are fitted with an anti-shunt mechanism that restricts unwanted grate movement when installed, improving durability and longevity of the system.

ACO Polymer Products, Inc.
Northeast Sales Office
9470 Pinecone Drive
Mentor, OH 44060
Tel: (440) 639-7230
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SPEC INFO

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August 2017

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J:\25\6287A Victory Park Soccer Fields Improvement Plan\DRAWINGS\C6.0 MISC DETAILS.dwg, Plotted: Apr 25, 2025 - 3:12pm

REVISION	DATE:	BY:	DESCRIPTION:
	04-25-2025	APA	ISSUE TO CITY

DRAWN BY: CAT

CHECKED BY: APA

BRAMHALL
ENGINEERING AND SURVEYING COMPANY
801 MOORE ROAD AVON, OHIO 44011
(440) 934 - 7878 (440) 934 - 7879 FAX

PREPARED FOR:

VICTORY PARK OHIO
7777 VICTORY LANE
NORTH RDGEVILLE, OH 44039

MULTI-SPORT FIELDS AT VICTORY PARK
MISCELLANEOUS DETAILS
CITY OF NORTH RIDGEVILLE, COUNTY OF LORAIN, STATE OF OHIO

SHEET C6.0

JOB NO. 25-6287A

CITY OF NORTH RIDGEVILLE
STANDARD GENERAL NOTES

GENERAL

1. ALL WORK AND MATERIALS SHALL MEET THE RULES, LAWS & CODES OF THE CITY OF NORTH RIDGEVILLE
2. THE FOLLOWING UTILITIES MAY BE LOCATED WITHIN THE WORK LIMITS OF THIS PROJECT:

PAVEMENTS	CITY OF NORTH RIDGEVILLE (440) 353–0842	
STORM SEWERS	CITY OF NORTH RIDGEVILLE (440) 353–0842	
SANITARY SEWERS	CITY OF NORTH RIDGEVILLE (440) 353–0842	
WATERLINES	CITY OF NORTH RIDGEVILLE (440) 353–0842	
GAS–COLUMBIA GAS	DAN SUREN	(440) 891–2428
TELEPHONE– WINDSTREAM	GEOFF HAMM	(440) 329–4247
ELECTRIC– OHIO EDISON	MIKE ZANNI	(440) 326–3271
CABLE–SPECTRUM	RON HRIBAL	(440) 388–0416 (EXT. 625)
WATER TRANSMISION	AVON LAKE MUNICIPAL UTILITIES	(440) 933–5226

THE CONTRACTOR SHALL VERIFY THE ABOVE INFORMATION WITH OUPS WHEN HE CONTACTS THEM BEFORE CONSTRUCTION BEGINS.

3. THE CONTRACTOR SHALL LOCATE ALL UTILITIES OR UNDERGROUND STRUCTURES PRIOR TO CONSTRUCTION AND NOTIFY EACH RESPECTIVE UTILITY OWNER FORTY–EIGHT (48) HOURS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
4. WHERE IN ANY CASE THE PLANS AND SPECIFICATIONS DO NOT ENTIRELY COVER MATERIALS AND/OR WORKMANSHIP, THE "STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, CONSTRUCTION AND MATERIAL SPECIFICATIONS", CURRENT EDITION WILL APPLY. ODOT REFERENCES MAY BE INDICATED THROUGHOUT THE PLANS. MATERIAL AND WORKMANSHIP SHALL ALSO CONFORM TO THE SPECIFICATIONS, RULES AND ORDINANCES OF THE CITY OF NORTH RIDGEVILLE. WHERE CONFLICTS OCCUR IN THE ABOVE, THE CITY ENGINEER SHALL DETERMINE THE GOVERNING AUTHORITY. ANY DEFECTS IN THE CONSTRUCTION INCLUDING MATERIALS OR WORKMANSHIP SHALL BE REPAIRED OR REPLACED AS DIRECTED BY THE CITY ENGINEER, REFERENCES THROUGHOUT THESE PLANS TO "THE ENGINEER" SHALL BE THE CITY ENGINEER.
5. ALL WORK SHALL BE DONE IN A SAFE MANNER AND AS A MINIMUM SHALL COMPLY WITH THE SPECIFIC SAFETY REQUIREMENTS OF THE OSHA AS DEFINED IN 29 CRF 1926
6. AT LEAST FIVE DAYS PRIOR TO THE START OF ACTUAL CONSTRUCTION WORK, A PRE–CONSTRUCTION CONFERENCE SHALL BE HELD AT THE DIRECTION OF THE CITY OF NORTH RIDGEVILLE ENGINEER AND APPROPRIATE CITY OFFICIALS, AND THE OWNER'S ENGINEER. THE CONTRACTOR OR HIS AUTHORIZED SUPERINTENDENT SHALL BE PRESENT, ALONG WITH ANY AND ALL PRIVATE UTILITY COMPANY REPRESENTATIVES. THIS MEETING WILL BE FOR COORDINATION AND PROCEDURE REVIEW PRIOR TO COMMENCING ANY PHYSICAL WORK.
7. THE CONTRACTOR SHALL NOT COMMENCE WITH ANY FORM OF CONSTRUCTION WITHOUT GIVING 24 HOUR NOTICE TO THE OFFICE OF THE CITY ENGINEER TO ARRANGE FOR INSPECTION. IF ANY CHANGE IN THE WORK SCHEDULE BECOMES NECESSARY, IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE INSPECTOR TO AVOID UNNECESSARY INSPECTION COST. IF NO NOTIFICATION IS MADE IN REGARDS TO CANCELLATION OF WORK, THE CONTRACTOR WILL BE CHARGES A MINIMUM OF FOUR (4) HOURS.
8. THE CONTRACTOR SHALL SUPPLY ALL LABOR, MATERIAL, AND EQUIPMENT NECESSARY, SUCH AS CALCIUM CHLORIDE, WATER, OR A MOTORIZED DUST–FREE STREET SWEEPING DEVICE, AS DIRECTED BY THE ENGINEER, TO MAINTAIN ALL ROADWAYS BEING USED FOR ACCESS TO THE CONSTRUCTION SITE.
9. THE CONTRACTOR SHALL FURNISH AND MAINTAIN ALL NECESSARY SAFEGUARDS SUCH AS BARRICADES, SATISFACTORY BARRIERS, LIGHTING, FLAGMEN, TEMPORARY GUARDRAIL, AND SUCH OTHER TRAFFIC CONTROL DEVICES AS PROVIDED IN "ITEM 614 – MAINTAINING TRAFFIC" SO AS TO AVOID DAMAGE AND/OR INJURY TO VEHICLES AND PERSONS USING THE ROADWAY DURING CONSTRUCTION. ALL AREAS OF PAVEMENT REMOVAL WHICH HAVE NOT BEEN FULLY RESTORED SHALL BE PROTECTED WITH CONES OR DRUMS DURING DAYLIGHT HOURS. THESE AREAS SHALL BE PROTECTED WITH FLASHING BARRICADES OR DRUMS WITH STEADY BURNING LIGHTS AT NIGHT. THE CONTRACTOR SHALL CONDUCT HIS OPERATIONS AS TO THE PROPOSED WORK WITH MINIMUM HAZARD, DELAY, AND INCONVENIENCE TO THE MOTORIST USING THE STREETS AFFECTED BY THE WORK DONE UNDER THE CONTRACT AND HE SHALL COORDINATE ALL CLOSING OF STREETS WITH THE CITY ENGINEER AND THE POLICE CHIEF OF THE CITY OF NORTH RIDGEVILLE.
10. ACCESS ROADS SHALL BE KEPT FREE OF MUD, DEBRIS, DIRT, ETC, AND SHALL BE CLEANED EVERY DAY AT THE END OF WORK OR MORE FREQUENTLY IF SO ORDERED BY THE CITY OF NORTH RIDGEVILLE.
11. THE CONTRACTOR AND SUBCONTRACTOR SHALL HAVE A COMPETENT SUPERVISOR ON THE PROJECT AT ALL TIMES WHEN WORK IS BEING DONE.
12. NO SLAG OR OTHER SULFUROUS MATERIAL WILL BE USED ON THE PROJECT.
13. FOR RESIDENTIAL SUBDIVISIONS, THE TRAFFIC CONTROL SIGNS WILL BE ERECTED BY THE CITY OF NORTH RIDGEVILLE AND THE COST OF INSTALLATION WILL BE PAID BY THE DEVELOPER. THE INSTALLATION AND COST OF THE STREET NAME SIGNS AND STREET LIGHTS WILL BE DONE BY THE DEVELOPER AT HIS EXPENSE
14. THE CITY ENGINEER SHALL BE NOTIFIED FORTY–EIGHT– (48) HOURS PRIOR TO BEGINNING THE ACTUAL CONSTRUCTION.

EARTHWORK

1. ALL EXCAVATION AND FILL WORK SHALL BE DONE IN ACCORDANCE WITH ODOT CONSTRUCTION AND MATERIALS SPECIFICATIONS.
2. THE SUBGRADE IN THE STREET SHALL BE LEFT TWO INCHES HIGH FOR THE PAVEMENT CONTRACTOR TO TRIM DOWN TO FINAL GRADE. THE CONTRACTOR SHALL PROOF ROLL THE GRADE WITH A FULLY LOADED (MAXIMUM LEGAL WEIGHT) TRIAXLE DUMP TRUCK, ANY "SOFT" SPOTS SHALL BE REMOVED AND REPLACES WITH COMPACTED EARTH.
3. EARTHWORK SHALL BE DONE IN SUCH A FASHION AS TO NOT TRAP WATER DURING CONSTRUCTION.
4. TREE AND BRUSH CLEARING/DISPOSAL SHALL BE DONE IN A MANNER ACCEPTABLE TO THE CITY OF NORTH RIDGEVILLE
5. ALL PAVEMENT AREAS SHALL HAVE ALL ORGANICS AND TOPSOIL REMOVED FROM THE AREA.
6. AT ALL TIMES DURING THE PROGRESS OF THE WORK AND UNTIL RELEASE OF THE CONTRACTOR FROM HIS GUARANTEE BY THE OWNER, THE CONTRACTOR SHALL MAINTAIN THE BACKFILLED TRENCHES AND OTHER EXCAVATIONS. IN PARTICULAR, THOSE TRENCHES OR EXCAVATIONS WHICH ARE WITHIN FIFTEEN (15) FEET OF THE EDGE OF PAVEMENT OR THE EDGE OF TRAVELED ROADWAYS, SHALL BE KEPT FILLED UP THE SAME LEVEL AS THE ADJACENT UNDISTURBED GROUND, ANY SETTLEMENT WHICH OCCURS DURING THIS PERIOD SHALL BE IMMEDIATELY FILLED IN TO PREVENT THE POSSIBILITY OF ACCIDENTS.
7. WHERE EXISTING SEWERS ARE ENCOUNTERED AND ARE INTERFERED WITH, FLOWS SHALL BE MAINTAINED, SEWER OR OTHER LIQUID MUST BE HANDLED BY THE CONTRACTOR EITHER BY CONNECTION INTO THE SEWERS (WITH THE APPROVAL OF THE CITY ENGINEER) OR BY TEMPORARY PUMPING TO A SATISFACTORY OUTLET. SEWAGE OR OTHER LIQUID SHALL NOT BE PUMPED, BAILED OR FLUMED OVER THE STREET.
9. BACKFILL SHALL INCLUDE THE MATERIAL PLACED ABOVE THE BEDDING AND SHALL CONSIST OF FINELY DIVIDED SOIL FREE FROM STONES, RUBBISH, LARGE CLUMPS OR OTHER HARMFUL DEBRIS. THE BACKFILL SHALL BE TAMPED IN SIX (6) INCH LAYERS.
10. BACKFILL WITHIN EXISTING OR PROPOSED PAVED OR STONE STREETS, ALLEYS, DRIVEWAYS, PARKING AREA AND PROPOSED SIDEWALKS, OR WITHIN FIVE (5) FEET OF THESE AREAS SHALL CONSIST OF A DURABLE GRAVEL OR CRUSHED STONE MEETING THE REQUIREMENTS OF ITEM 304 OF THE CURRENT ODOT CONSTRUCTION AND MATERIAL SPECIFICATIONS. THE USE OF A 304 RECYCLED CONCRETE EQUIVALENT AND SLAG IS PROHIBITED. THE GRANULAR BACKFILL SHALL BE MECHANICALLY TAMPED IN SIX (6) INCH LAYERS SO THAT THE BACKFILL WILL HAVE A DENSITY EQUAL TO A MINIMUM OF 95%OF THAT POSSIBLE UNDER OPTIMUM MOISTURE CONTENT AS DETERMINED BY STANDARD PROTECTOR TEST.

ROADWAY

1. ALL TREES AND BRUSH, AND ANY OTHER VEGETATION WITHIN THE LIMITS OF THIS PROJECT THAT INTERFERE WITH THE CONSTRICTION SHALL BE REMOVED FRONT HE SITE. STUMPS MAY BE GROUND OUT OR REMOVED FROM THE SITE.
2. ALL EARTHWORK SHALL HAVE INSPECTION AND TESTING AS DEEMED NECESSARY BY THE CITY OF NORTH RIDGEVILLE, SUCH INSPECTION WILL BE COORDINATED BY THE "CONTRACTOR". WHO SHALL USE A SOILS TESTING LABORATORY TO MAKE THE TEST INCIDENTAL TO THE QUALITY CONTROL OF THE EARTHWORK OPERATION. SOIL TESTING AND CLASSIFICATION SHALL BE PERFORMED BY THE SOILS TESTING LABORATORY TO DETERMINE THE PROPER MOISTURE CONTENT AND SOIL DENSITY BEFORE BEGINNING EARTHWORK CONSTRUCTION. THE COST OF THIS INSPECTION AND TESTING WILL BE PAID BY THE CONTRACTOR. THE CONTRACTOR SHALL PRESENT HIS PRE–CONSTRUCTION CONFERENCE.
3. WHERE SOFT SUBGRADE IS ENCOUNTERED, DUE TO NO FAULT OR NEGLECT OF THE CONTRACTOR, IN WHICH SATISFACTORY STABILITY CANNOT BE OBTAINED BY MOISTURE CONTROL AND COMPACTION, THE UNSTABLE MATERIAL SHALL BE EXCAVATED TO THE DEPTH REQUIRED BY THE ENGINEER, BACKFILLING OF THESE EXCAVATED AREAS SHALL BE WITH EMBANKMENT MATERIAL OR AGGREGATE BASE (ODOT ITEM 304) OR "AS DIRECTED BY THE ENGINEER."
4. CONCRETE WILL BE TESTED BY AN ODOT QUALIFIED LABORATORY DURING CONSTRUCTION FOR AIR ENTRAINMENT AND SLUMP. CONCRETE TEST CYLINDERS WILL BE PREPARED FOR EACH 50 YARDS OR FRACTION THEREOF, CONCRETE BEAMS MAY BE PREPARED AT THE CONTRACTOR'S OPTION, THE LABORATORY DESIGNATED TO PERFORM THE ON–SITE INSPECTION PRIOR TO CONSTRUCTION.
5. CONCRETE PAVEMENT CURING COMPOUND SHALL BE SILENCURE A FROM CHEMMASTERS, 300 EDWARDS ST., MADISON. OHIO 44057.
6. IN AREAS OF HIGH GROUNDWATER OR WHERE SURFACE SEEPAGE HAS BEEN OBSERVED IT MAY BE NECESSARY TO CONSTRUCT DRAINS PERPENDICULAR TO THE PROPOSED PAVEMENT. THESE UNCLASSIFIED PIPE UNDERDRAINS, CONSTRUCTED IN ACCORDANCE WITH ODOT ITEM 605 SHALL BE 3 FEET BELOW PAVEMENT GRADE AND CONNECTED INTO THE APPROPRIATE STORM CONDUIT OR OUTLET. CONDUIT SHALL BE 6" DIAMETER PERFORATED PVC TYPE PS–46 PIPE CONFORMING TO ASTM F–758 OR 6" DIAMETER PERFORATED PSM POLYVINYL CHLORIDE. (PVC) PIPE CONFORMING TO ASTM D–3034 SDR 35, WITH GEOTEXTILE DRAIN SLEEVE MEETING THE REQUIREMENTS OF ODOT 712.09, TYPE A, AND WITH NO. 8 STONE OR GRAVEL AGGREGATE.

UNDERGROUND INSTALLATIONS – GENERAL

1. THE VARIOUS UNDERGROUND INSTALLATION ITEMS SHALL INCLUDE, BUT NOT BE LIMITED TO, ALL EXCAVATION, MATERIAL, LABOR, BEDDING, BACKFILL, COMPACTION, EQUIPMENT, UTILITY PROTECTION, MAINTENANCE OF ROADWAYS AND DRIVES UNTIL FINAL REPLACEMENT, PUMPING AND/OR DEWATERING, CONSTRUCTION AND REMOVAL OF ALL NECESSARY TRENCH PROTECTION AND ALL OTHER INCIDENTAL ITEMS NECESSARY TO INSTALL SUCH UTILITY. THE CONTRACTOR IS TO TOTALLY FAMILIARIZE HIMSELF WITH THE GROUND CONDITIONS THAT NOW DO OR MAY EXIST DURING THE CONSTRUCTION SO AS NOT TO ADVERSELY AFFECT THE INTEGRITY OF ANY UTILITY INSTALLATION OR STRUCTURE ON THE CONSTRUCTION SITE OR ADJACENT PROPERTIES.
2. ALL SANITARY SEWER AND STORM SEWER CONSTRUCTION SHALL CONFORM WITH ODOT ITEM 611.
3. ANY UNSUITABLE MATERIAL NOT APPROVED BY THE ENGINEER FOR BACKFILL AND MATERIAL IN EXCESS OF THAT REQUIRED FOR BACKFILLING SHALL BE DISPOSED OF BY THE CONTRACTOR ON THE SITE.
4. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS TO PREVENT ANY CAVING OR SETTLING OF EXCAVATION OR TRENCH WALLS WHICH COULD ENDANGER THE SAFETY OF ANY PERSON ENGAGED IN THE WORK OR IN ANY WAY DAMAGE THE UNDERGROUND INSTALLATIONS OF ADJACENT UTILITY OR PROPERTY; OR DIMINISH THE TRENCH WIDTH NECESSARY FOR THE PROPER CONSTRUCTION OF HE UNDERGROUND INSTALLATION OR OTHERWISE INJURE OR DELAY THE WORK. THE TYPE AND AMOUNT OF SUCH PROTECTION, SUCH AS TRENCH BOXES, SHEETING, SHORING, OR BRACING SHALL BE CONSISTENT WITH THE DEPTH AND WIDTH OF EXCAVATION. THE COMPOSITION AND WATER CONTENT OF THE SOIL IN THE PROXIMITY OF STRUCTURES OR OTHER UTILITIES, THE VIBRATION FROM EQUIPMENT AND THE SPOIL PLACEMENT, AND SHALL BE IN ACCORDANCE WITH THE LATEST OSHA REGULATIONS.
5. IN ORDER TO REDUCE GROUND WATER SEEPAGE AND PROVIDE A STABLE TRENCH IT MAY BE NECESSARY TO DEWATER PRIOR TO EXCAVATION OF THE SEWER TRENCH AND/OR PROVIDE TEMPORARY SUMPS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO ADJACENT STRUCTURES, PAVEMENTS, OR UTILITIES, OR LOSS OF PRIVATE WELL WATER RESULTING FROM DEWATERING, LOSS OF GROUND, HEAVE, TRENCH CONSTRUCTION, AND ANY OTHER CONSTRUCTION METHODS. THE CONTRACTOR SHALL PROTECT ALL EXISTING SEWER AND UTILITIES THAT THE PROPOSED INSTALLATION CROSSES BY COMPACTING THE BACKFILL UNDER SUCH EXISTING FACILITIES OR SHALL PROTECT THE EXISTING FACILITY IN A MANNER AS APPROVED BY THE ENGINEER. IF SHEETING IS USED, IT MAY BE NECESSARY TO DRIVE THE SHEETING SEVERAL FEET BELOW THE BOTTOM OF THE PIPE. WHEN USING MOVABLE TRENCH SUPPORTS OR SHEETING CARE MUST BE EXERCISED SO AS NOT TO DISTURB THE PIPE LOCATION, JOINTING OR BEDDING MATERIAL IF STEEL SHEETING IS USED IT SHALL BE HELD IN PLACE BY LONGITUDINAL BEAMS AND CROSS BRACES OR STRUTS AS REQUIRED TO RESTRAIN THE TOP OF THE SHEETING. IF TIMBER SHEETING AND BRACING IS USED, IT MUST BE OF GOOD QUALITY AND OF HARDWOOD CONSTRUCTION. AFTER THE PIPE HAS BEEN INSTALLED AND THE BALANCE OF THE BEDDING MATERIAL HAS BEEN PLACED OVER THE PIPE. THE REMOVAL OF ANY TRENCH PROTECTION SHALL BE CAREFULLY CONTROLLED. THE CONTRACTOR SHALL DEMONSTRATE THAT THE REMOVAL OF THE TRENCH PROTECTION WILL NOT ADVERSELY AFFECT THE PIPE LOCATION AND BEDDING. IF SHEETING CANNOT BE REMOVED WITHOUT ADVERSELY AFFECTING THE PIPE AND BEDDING LOCATION, THE ENGINEER MAY ORDER THE SHEETING CUT OFF AT SOME POINT. AT LEAST ONE FOOT ABOVE THE TOP OF THE PIPE AND LEFT IN PLACE.
6. PRIOR TO ANY CONNECTION INTO AND EXISTING SEWER MANHOLE OR CONDUIT THE CONTRACTOR SHALL TAKE SUCH MEASURES AS NECESSARY, "AS APPROVED BY THE ENGINEER", (I.E., TEMPORARY PLUGS, SAND BAGS, ETC.) DURING THE COURSE OF THE CONSTRUCTION OF THE PROPOSED SEWERS. TO GUARD AGAINST ANY DRAINAGE FROM ENTERING THE EXISTING SYSTEM AND POSSIBLY CONTAMINATING SUCH SYSTEM WITH SILT.
7. WHERE THE PROPOSED IMPROVEMENTS CROSS EXISTING OR PROPOSED PAVEMENTS, INCLUDING A POINT FIVE (5) FEET BEYOND SUCH CROSSINGS, OR WHERE THE CONSTRUCTION METHODS USED BY THE CONTRACTOR RESULT IN THE TRENCH WALL BEING LESS THAN 3 FEET FROM THE EDGE OF THE PAVEMENT, THE ENTIRE TRENCH BACKFILL SHALL BE COMPACTED IN LAYERS NOT TO EXCEED 8 INCHES IN THICKNESS WITH MECHANICAL TAMPERS MEETING NINETY–EIGHT (98) PERCENT OF MAXIMUM LABORATORY DRY WEIGHT.
8. THE LINE AND GRADE OF SEWER MAINS SHALL BE CONTROLLED DURING THE SEWER CONSTRUCTION BY USE OF AN APPROVED LASER DEVICE.
9. AT ALL STORM SEWER MAIN AND SANITARY SEWER MAIN INTERSECTIONS (CROSSINGS) WHEN PIPE CLEARANCE IS LESS THAN 18", THE LOWER PIPE SHALL BE ENCASED AND THE UPPER PIPE–SHALL BE MONOLITHICALLY CRADLED IN 2500 PSI CONCRETE FOR THE WIDTH OF THE TRENCH. AT PIPE CROSSINGS GREATER THEN 18" THE BACKFILL BELOW THE UPPER PIPE SHALL BE COMPACTED IN PLACE TO THE SATISFACTION OF THE ENGINEER.

STORM SEWERS

1. STORM SEWER CONDUIT SHALL CONFORM TOT EH FOLLOWING REQUIREMENTS:

   STORM CONDUIT BETWEEN STREET BASINS AND CONNECTING TO MANHOLE SHALL BE (A.) ONLY IF COVER IS LESS THAN OR EQUAL TO ONE FOOT MEASURED FROM THE TOP OF THE PIPE TO THE BOTTOM OF THE SUBGRADE, OR MAY BE (E.) IF COVER IS GREATER THAT ONE FOOT MEASURED FROM THE TOP OF THE PIPE TO THE BOTTOM OF THE SUBGRADE. ALL FOOTING DRAIN CONNECTIONS SHALL BE (B.) ONLY.

   A. REINFORCED CONCRETE PIPE ASTM C–76, "B" OR "C" WALL, 8 FOOT LENGTHS, WITH AN "O" RING CONFINED GASKET JOINT PER ASTM C–443: (A) 12" & LARGER DIA. CLASS IV.

   B. POLYVINYL CHLORIDE (PVC) ASTM D–3034 (SDR 35) (ODOT 707.45) WITH GASKET MATERIAL CONFORMING TO ASTM F–477 AND JOINTS PER ASTM D–3212 OR SOLVENT CEMENT JOINTS PER ASTM D–2584

   C. PERMA–LOC (PVC) AASHTO SPECIFICATION IN M–304M (ODOT 707.43) WITH ASTM 0–3212 AND INSTALLED PER THE MANUFACTURER'S RECOMMENDATIONS.

   D. ULTRA–RIB (PVC) ASTM F 794 (ODOT 707.43) WITH INTEGRAL BELL AND SPIGOT JOINT IN ACCORDANCE WITH ASTM D–3212 AND INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.

   E. SMOOTH INTERIOR, CORRUGATED, HIGH DENSITY POLYETHYLENE PIPE (HDPE) CONFORMING TO AASHTO SPECIFICATIONS M252 TYPE S AND M–294 TYPE S, (OFOT 707.33) ADS N–12, HANCOR HI–0, OR APPROVED EQUAL THE JOINTS SHALL BE SILT–TIGHT AND THE GASKETS SHALL MEET THE REQUIREMENTS OF ASTM F477 (NOT PRESSURE RATED), INSTALLED IN ACCORDANCE WITH ASTM D–3212 AND MANUFACTURER'S RECOMMENDATIONS.

2. OTHER OPTIONAL MATERIALS MAY BE USED WHEN APPROVED BY THE CITY ENGINEER.
3. UNDERDRAINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH ODOT ITEM 605. CONDUIT SHALL BE 6" DIAMETER PVC TYPE PS–48 PIPE CONFORMING TO ASTM F–755 OR 6" DIAMETER PSM POLYVINYLCHLORIDE (PVC) PIPE CONFORMING TO ASTM D–3034 SDR 35, WITH A GEOTEXTILE SLEEVE MEETING THE REQUIREMENTS OF ODOT ITEM 712.09, TYPE A, AND WITH THE GRANULAR MATERIAL BEING NO. 57 AGGREGATE (NO SLAG)
4. ROOF DRAINS ARE TO BE DISCHARGED ONTO SPLASH BLOCKS. NO CONNECTION TO STORM SEWER.
5. AT LEAST 60 DAYS PRIOR TO THE END OF THE PERIOD FOR WHICH IMPROVEMENTS ARE COVERED BY MAINTENANCE BONDS, THE DEVELOPER SHALL CLEAN AND VIDEO TAPE THE STORM SEWER, SANITARY SEWER AND MANHOLES, OR CAUSE THIS TO BE DONE BY A SUBCONTRACTOR OR BUILDER(S) WHO THE DEVELOPER HOLDS RESPONSIBLE PRIOR TO RELEASES OF THE MAINTENANCE BONDS COVERING THE IMPROVEMENTS. TWO (2) COPIES OF THE VIDEO TAPE(S) AND A WRITTEN REPORT OF THE RESULTS SHALL BE FURNISHED TO THE DEVELOPER AND THE CITY ENGINEER, BOTH THE TAPING AND THE WRITTEN REPORT SHALL BE DONE TO THE SATISFACTION OF THE DEVELOPER AND THE CITY ENGINEER OR THEIR DESIGNEES. ANY AND ALL PROBLEMS DISCOVERED SHALL BE REMEDIATED WITHIN TEN (10) WORKING DAYS BY THE DEVELOPER OR BY THE PARTY THE DEVELOPER SHALL CAUSE TO REMEDIATE THE PROBLEMS, IF ANY.
6. ALL MAIN LINE STORM SEWERS SHALL BE CLEANED AND VIDEOTAPED IMMEDIATELY AFTER CONSTRUCTION AND THE VIDEOTAPE SUBMITTED TO THE CITY ENGINEER FOR REVIEW AND APPROVAL. ALL DEFECTS SHALL BE PROMPTLY REPAIRED BY THE CONTRACTOR.

OCTOBER 1, 2008 –REV. 5/11/09, 9/29/09, 12/7/09, 8/18/16, 5/9/17, 6/28/17, 6/5/20

REVISION	DATE:	BY:	DESCRIPTION:
	04-25-2025	APA	ISSUE TO CITY
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DRAWN BY: CAT

CHECKED BY: APA

BRAMHALL
ENGINEERING AND SURVEYING COMPANY
801 MOORE ROAD AVON, OHIO 44011
(440) 934 - 7878 (440) 934 - 7879 FAX

PREPARED FOR:

VICTORY PARK OHIO
7777 VICTORY LANE
NORTH RDGEVILLE, OH 44039

MULTI-SPORT FIELDS AT VICTORY PARK
MISCELLANEOUS DETAILS
CITY OF NORTH RIDGEVILLE, COUNTY OF LORAIN, STATE OF OHIO

SHEET C6.1

JOB NO. 25-6287A

J:\25\6287A Victory Park Soccer Fields Improvement Plan\DRAWINGS\C6.0 MISC DETAILS.dwg, Plotted: Apr 25, 2025 - 3:12pm

Notes:

Location: and elevation when given on the plans is top center of the grate. When side openings are provided, elevation shall be the flow line of the side inlet.

Casting and Frame: Casting to be East Jordan Iron Works No. 5110 w/Type M/2 Flat Grate or as approved equal. A type M3 or M4 may be required in a bicycle traffic environment.

Walls: concrete block or cast-in-place walls have a nominal thickness of 8 inches. Precast walls shall have a min. thickness of 6 inches and be reinforced sufficiently to permit shipping and handling without damage.

2-2-B Grate: elevation to be placed 4 to 6 inches below normal ditch returning to normal 10 feet each side of the basin.

The following text shall be cast into the top of the grate: "DUMP NO WASTE" and "DRAINS TO WATERWAY"

Text shall be printed in bold, capital letters with a minimum height of 0.5". "WATERWAY" may be substituted with "STREAM", "RIVER", "LAKE", etc. Actual placement and logo may vary per manufacturer.

Side Inlets: shall be provided on both sides of the No. 2-2-B catch basins in sags and on upstream side only where the catch has a continuous down grade past the catch basin.

Concrete: cast in place, to be Class C. All precast concrete shall meet the requirements of 706.13.

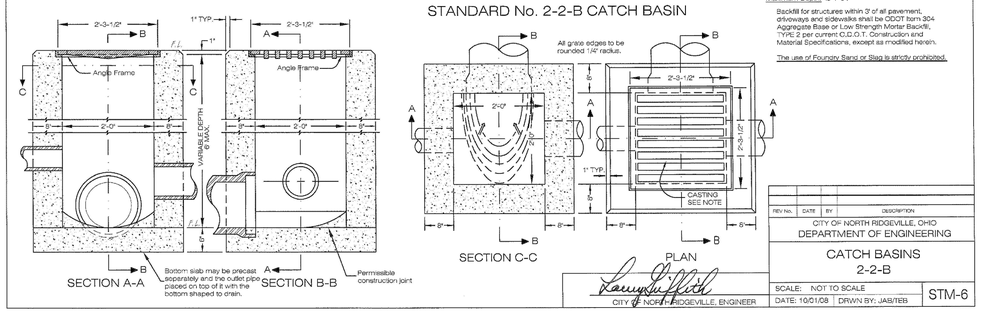
Openings: for pipes shall be O.D +2" when fabricated or field cut.

Maximum Depth: is 4-0".

Backfill for structures within 3' of all pavement, driveways and sidewalks shall be ODOT Item 304 Aggregate Base or Low Strength Mortar Backfill, TYPE 2 per current O.D.O.T. Construction and Material Specifications, except as modified herein.

The use of Foundry Sand or Slag is strictly prohibited.

STANDARD No. 2-2-B CATCH BASIN



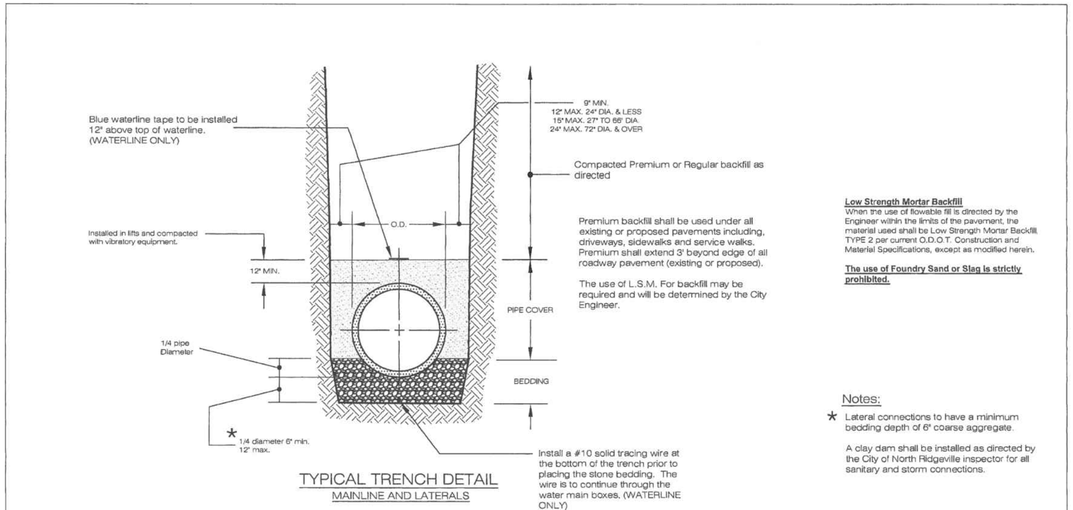
REV NO.	DATE	BY	DESCRIPTION

CITY OF NORTH RIDGEVILLE, OHIO
DEPARTMENT OF ENGINEERING

CATCH BASINS
2-2-B

SCALE: NOT TO SCALE
DATE: 10/01/08 | DRWN BY: JAB/TEB | STM-6

CITY OF NORTH RIDGEVILLE, ENGINEER



TYPICAL TRENCH DETAIL
MAINLINE AND LATERALS

Low Strength Mortar Backfill
When the use of flowable fill is directed by the Engineer within the limits of the pavement, the material used shall be Low Strength Mortar Backfill TYPE 2 per current O.D.O.T. Construction and Material Specifications, except as modified herein.

The use of Foundry Sand or Slag is strictly prohibited.

Premium backfill shall be used under all existing or proposed pavements including, driveways, sidewalks and service walks. Premium shall extend 3' beyond edge of all roadway pavement (existing or proposed).

The use of L.S.M. For backfill may be required and will be determined by the City Engineer.

Notes:

* Lateral connections to have a minimum bedding depth of 6" coarse aggregate.

A clay dam shall be installed as directed by the City of North Ridgeville inspector for all sanitary and storm connections.

Premium backfill shall consist of course interlocking aggregate O.D.O.T #304 or Low Strength Mortar backfill, Type 2.

Pipe cover shall consist of course interlocking aggregate no. 57, #5 and #8 (lateral connections only).

Bedding shall consist of course interlocking aggregate No. 57, or 8 for 60' or smaller diameter pipe, for 66" or larger diameter pipe No. 4, #57 and #8 aggregate may also be used.

Bedding for pipe shall conform to ASTM D-2321.

All Material substitutions must be approved by the City Engineer.

REV No.	DATE	BY	DESCRIPTION

CITY OF NORTH RIDGEVILLE, OHIO
DEPARTMENT OF ENGINEERING

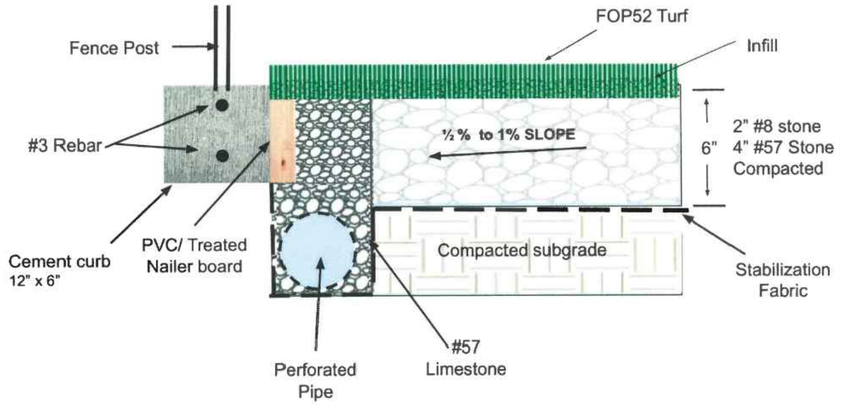
TRENCH DETAIL

SCALE: NOT TO SCALE
DATE: 10/01/08 | DRWN BY: JAB/TEB | MIS-1

CITY OF NORTH RIDGEVILLE, ENGINEER

Rev. 8/20/2014

PERIMETER DETAIL TURF/CURB/NATURAL GRASS



Not to scale (measurements are nominal not actual)

SITEDRAIN™ STRIP 9400

PREFABRICATED STRIP DRAIN

AWD AMERICAN WICK DRAIN

PRODUCT OVERVIEW

SITEDRAIN Strip 9400 geocomposite strip drain products are composed of a dimpled polymeric perforated core fully wrapped in a nonwoven geotextile. The geotextile allows water to pass through while retaining backfill materials. The perforated core allows water collection from all sides and provides a continuous flow path to designated drainage exits.

SITEDRAIN Strip 9400 products provide a value engineered alternative to perforated pipe and aggregate subsurface drainage systems requiring high strength, high flow capacity, and a geotextile meeting AASHTO M288 Class 3 subsurface drainage requirements.

PROPERTY[1]	TEST METHOD	UNIT OF MEASURE	Typical Value	MARV
GEOTEXTILE				
Material[2]			PP, NPNW	PP, NPNW
Survivability	AASHTO M288	Class	3	3
Grab Tensile Strength	ASTM D4632	lbs	135	120
		N	601	534
Grab Elongation	ASTM D4632	%	60	50
CBR Puncture	ASTM D6241	lbs	365	340
		N	1,624	1,512
Trapezoidal Tear	ASTM D4533	lbs	60	50
		N	267	222
UV Resistance	ASTM D4355	% / 500 Hrs	70	70
Apparent Opening Size (AOS)[3]	ASTM D4751	sieve	70	70
		mm	0.212	0.212
Permittivity	ASTM D4491	sec^{-1}	2.4	1.7
Water Flow Rate	ASTM D4491	gpm / ft^2	175	140
		Lpm / m^2	7,130	5,704
CORE				
Compressive Strength	ASTM D6364	psf	9,500	-
	ASTM D1621	kPa	455	-
Thickness	ASTM D5199	in	1.0	-
		mm	25.4	-
In-Plane Flow Rate[4]	ASTM D4716	gpm/ft	21	-
		Lpm/m	261	-

MODEL	WIDTH	ROLL LENGTH	ROLL WEIGHT	ITEM CODE
9406	6"	150'	28 lbs	10600
9412	12"	150'	48 lbs	10610
9412	12"	500'	160 lbs	11270
9418	18"	150'	72 lbs	10620
9418	18"	500'	240 lbs	11280
9424	24"	150'	90 lbs	10630
9424	24"	500'	300 lbs	11290
9436	36"	100'	90 lbs	10640

[1] Unless otherwise noted, all physical and performance properties listed are Typical Value or Minimum Average Roll Value (MARV) as defined in ASTM D4439.
[2] PP = Polypropylene; NPNW = Needle-Punched Nonwoven; WM = Woven Monofilament; SBNW = Spunbonded Nonwoven
[3] Values for AOS represent Maximum Average Roll Value (MaxARV).
[4] In-plane flow rate measured at 3,600 psf (172 kPa) compressive load and a hydraulic gradient of 1.0.

All technical information contained in this document is accurate as of publication. AWD reserves the right to make changes to products and literature without notice. Please refer to our website for the most current technical information available.

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7238 SS 070420

REVISION	DATE:	BY:	DESCRIPTION:
	04-25-2025	APA	ISSUE TO CITY

DRAWN BY: CAT

CHECKED BY: APA

BRAMHALL
ENGINEERING AND SURVEYING COMPANY
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PREPARED FOR:

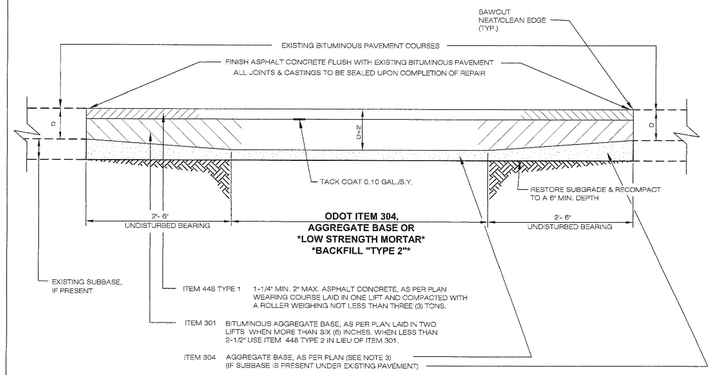
VICTORY PARK OHIO
7777 VICTORY LANE
NORTH RDGEVILLE, OH 44039

MULTI-SPORT FIELDS AT VICTORY PARK
MISCELLANEOUS DETAILS
CITY OF NORTH RIDGEVILLE, COUNTY OF LORAIN, STATE OF OHIO

SHEET C6.2

JOB NO. 25-6287A

J:\25\6287A Victory Park Soccer Fields Improvement Plan\DRAWINGS\C6.0 MISC DETAILS.dwg, Plotted: Apr 25, 2025 - 3:12pm



NOTES:

1. TRENCH BACKFILL MATERIAL SHALL BE ODOT ITEM 304 AGGREGATE BASE OR LOW STRENGTH MORTAR BACKFILL MATERIAL, 100 lb., TYPE 2 AS DIRECTED BY THE ENGINEER. THE SPECIFICATION FOR THIS IS AS CONTAINED IN THE O.D.O.T. CONSTRUCTION & MATERIAL SPECIFICATIONS, LATEST EDITION, ITEM 613, MODIFIED HEREIN.
2. ITEMS 301, 448 TYPE 2 AND 448 TYPE 1 SHALL BE AS SPECIFIED IN THE CURRENT EDITION OF THE ODOT C.M.S.
3. WHERE THREE (3) INCHES OR LESS OF ITEM 304, AS PER PLAN IS REPLACED, USE SCREENINGS GRADED IN ACCORDANCE WITH 703.10 EXCEPT THAT THE MINIMUM PERCENT PASSING THE No. 100 SIEVE SHALL BE FIVE (5) PERCENT.
4. TRAFFIC SHALL BE MAINTAINED IN A SAFE AND SATISFACTORY MANNER CONFORMING TO THE REQUIREMENTS OF ITEM 614 MAINTAINING TRAFFIC AND THE GENERAL PROVISIONS OF THE O.D.O.T. CONSTRUCTION AND MATERIAL SPECIFICATIONS, AND IN COMPLIANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (O.M.U.T.C.D.). FOR TRENCH OPENINGS REQUIRING PAVEMENT AND/OR BERM OPENING PERMIT(S), THE APPLICANT SHALL FURNISH A MAINTENANCE OF TRAFFIC AND/ OR, IF REQUIRED, A DETOUR PLAN TO THE ENGINEERS OFFICE FOR REVIEW AND APPROVAL.
5. AGGREGATE OR PAVED SHOULDER AREAS AND NON-PAVED BERM OR TREE LAWN AREAS WITHIN THE RIGHT-OF-WAY SHALL BE RESTORED OR REPLACED IN ACCORDANCE WITH THE PLANS OR AS DIRECTED TO MINIMALLY MATCH THEIR PREVIOUSLY UNDISTURBED CONDITIONS.
6. BASE MATERIAL TO BE PLACED IN LAYERS NOT TO EXCEED 4" THICKNESS LOOSE DEPTH BY USE OF MECHANICAL COMPACTORS OR OTHER APPROVED COMPACTORS.
7. WHEN THE USE OF STEEL PLATES IS NECESSARY THE CONTRACTOR WILL BE RESPONSIBLE FOR THE FOLLOWING:

NOVEMBER 15 TO APRIL 15 - STEEL PLATES ARE TO BE RECESSED TO PROVIDE A SMOOTH TRANSITION BETWEEN EXISTING PAVEMENT AND THE STEEL PLATE. TEMPORARY ASPHALT TO BE USED IF REQUIRED.

APRIL 16 TO NOVEMBER 14 - STEEL PLATES ARE TO BE INSTALLED ON THE SURFACE OF THE EXISTING PAVEMENT, PINNED IN PLACE AND RAMPED WITH THE APPROPRIATE TEMPORARY ASPHALT.

* The use of Foundry Sand or slag is strictly prohibited. *

RESTORATION:
ALL PAVEMENT RESTORATION SHALL BE COMPLETED WITHIN 48 HOURS OF THE WORK PERFORMED, OR AS DIRECTED BY THE CITY ENGINEER.

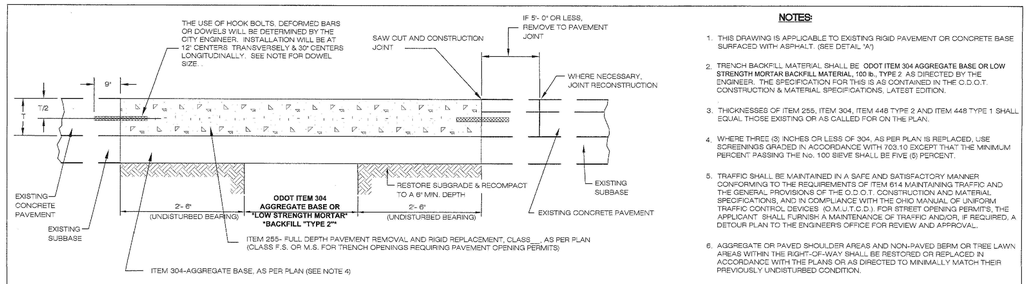
REV No.	DATE	BY	DESCRIPTION

CITY OF NORTH RIDGEVILLE, OHIO
DEPARTMENT OF ENGINEERING

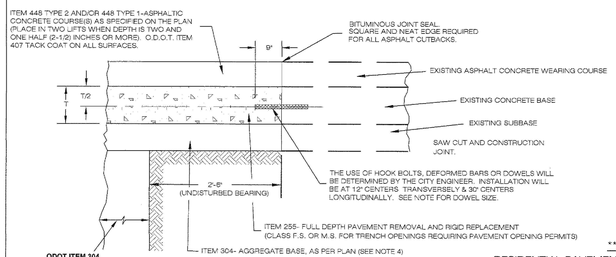
FLEXIBLE PAVEMENT REPAIR DETAIL

SCALE: NOT TO SCALE | DATE: 10/01/08 | DRWN BY: JAB/TEB | PAV-5

CITY OF NORTH RIDGEVILLE, ENGINEER



* The use of Foundry Sand or Slag is strictly prohibited. *



DETAIL-"A"
CONCRETE BASE/ASPHALT OVERLAY

Note:
RESIDENTIAL PAVEMENT T = 8" (1'x 18' Long Dia. Dowel)
INDUSTRIAL PAVEMENT T = 9" (1 ½'x 18" Long Dia. Dowel)
(Heavy Duty Epoxy Coated Basket Assemblies At All Transverse Joints)
As Directed

CITY OF NORTH RIDGEVILLE, ENGINEER

NOTES:

1. THIS DRAWING IS APPLICABLE TO EXISTING RIGID PAVEMENT OR CONCRETE BASE SURFACED WITH ASPHALT. (SEE DETAIL "A")
2. TRENCH BACKFILL MATERIAL SHALL BE **ODOT ITEM 304 AGGREGATE BASE OR LOW STRENGTH MORTAR BACKFILL MATERIAL**, 100 lb., TYPE 2 AS DIRECTED BY THE ENGINEER. THE SPECIFICATION FOR THIS IS AS CONTAINED IN THE O.D.O.T. CONSTRUCTION & MATERIAL SPECIFICATIONS, LATEST EDITION.
3. THICKNESSES OF ITEM 255, ITEM 304, ITEM 448 TYPE 2 AND ITEM 448 TYPE 1 SHALL EQUAL THOSE EXISTING OR AS CALLED FOR ON THE PLAN.
4. WHERE THREE (3) INCHES OR LESS OF 304, AS PER PLAN IS REPLACED, USE SCREENINGS GRADED IN ACCORDANCE WITH 703.10 EXCEPT THAT THE MINIMUM PERCENT PASSING THE No. 100 SIEVE SHALL BE FIVE (5) PERCENT.
5. TRAFFIC SHALL BE MAINTAINED IN A SAFE AND SATISFACTORY MANNER CONFORMING TO THE REQUIREMENTS OF ITEM 614 MAINTAINING TRAFFIC AND THE GENERAL PROVISIONS OF THE O.D.O.T. CONSTRUCTION AND MATERIAL SPECIFICATIONS, AND IN COMPLIANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (O.M.U.T.C.D.). FOR STREET OPENING PERMITS, THE APPLICANT SHALL FURNISH A MAINTENANCE OF TRAFFIC AND/OR, IF REQUIRED, A DETOUR PLAN TO THE ENGINEERS OFFICE FOR REVIEW AND APPROVAL.
6. AGGREGATE OR PAVED SHOULDER AREAS AND NON-PAVED BERM OR TREE LAWN AREAS WITHIN THE RIGHT-OF-WAY SHALL BE RESTORED OR REPLACED IN ACCORDANCE WITH THE PLANS OR AS DIRECTED TO MINIMALLY MATCH THEIR PREVIOUSLY UNDISTURBED CONDITION.
7. THIS DRAWING IS USED IN CONJUNCTION WITH ALL APPLICABLE CITY OF NORTH RIDGEVILLE STANDARD CONSTRUCTION DRAWINGS, DETAILS, NOTES, SPECIFICATIONS AND SUPPLEMENTAL SPECIFICATIONS REFERENCED THEREIN.
8. WHERE EXISTING PAVEMENT THICKNESS IS LESS THAN 7", HOOK BOLTS OR DEFORMED BARS ARE TO BE USED IN LIEU OF DOWEL BARS, AS DIRECTED BY THE ENGINEER.
9. WHEN THE USE OF STEEL PLATES IS REQUIRED THE CONTRACTOR WILL BE RESPONSIBLE FOR THE FOLLOWING:
   PLATES TO BE INSTALLED ON THE SURFACE OF THE EXISTING PAVEMENT, PINNED IN PLACE AND RAMPED WITH THE APPROPRIATE TEMPORARY ASPHALT.
10. ALL ASPHALT CONCRETE SHALL BE DELIVERED AND PLACED AT OPTIMUM TEMPERATURE TO ACHIEVE PROPER COMPACTION. **TRUCKS SHALL BE INSULATED AND COVERED IN COLD WEATHER OPERATIONS.**
11. ANCHORING DOWELS AND DEFORMED BARS INTO EXISTING PAVEMENT SHALL BE DONE WITH A TWO PART EPOXY CONSISTING OF A RESIN AND A HARDENING AGENT.

RESTORATION:
ALL PAVEMENT RESTORATION SHALL BE COMPLETED WITHIN 48 HOURS OF THE WORK PERFORMED, OR AS DIRECTED BY THE CITY ENGINEER.

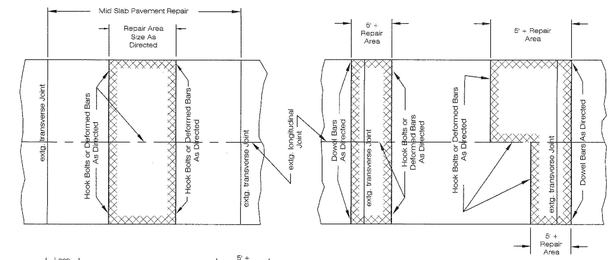
REV No.	DATE	BY	DESCRIPTION

CITY OF NORTH RIDGEVILLE, OHIO
DEPARTMENT OF ENGINEERING

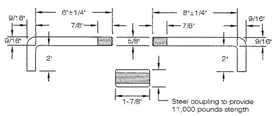
RIGID PAVEMENT REPAIR DETAIL

SCALE: NOT TO SCALE | DATE: 10/01/08 | DRWN BY: JAB/TEB | PAV-6

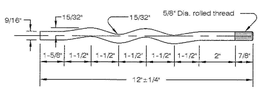
CITY OF NORTH RIDGEVILLE, ENGINEER



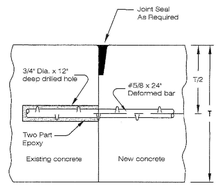
JOINT REPAIRS



HOOK BOLT



HOOK BOLT ALTERNATE



DEFORMED BAR
May Be Used in Lieu of Hook Bolt

Notes:

1) The intent of this detail is to indicate the probable installation for hook bolts, deformed bars or dowel bars. Variations of these details may be required as directed by the City Engineer. Where complete pavement slabs are removed, dowel bars will be installed on both sides of the repair, as directed by the Engineer.

2) Where multiple slabs are replaced, epoxy coated dowel baskets, the size determined by the pavement thickness, will be placed in line with the adjacent slab joint pattern.

3) Removal of the entire slab is required when the area of repair falls witnin 5' of an existing joint, unless otherwise directed by the Engineer.

4) All new joints are to be tooled and crack filled when completed.

5) Spacing of all hook bolts, deformed bars and dowel bars will be as required on Concrete Pavement Standards detail sheet.

6) Hook bolt inserts shall be turned to a tight fit when installed in threaded hook bolts or couplings.

7) Tie bars, hook bolt assemblies and hook bolt alternate shall have a minimum strength of 11,000 pounds.

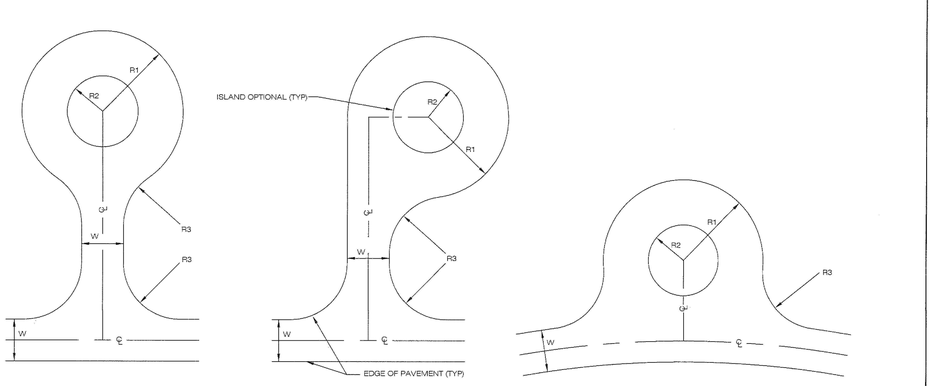
REV No.	DATE	BY	DESCRIPTION

CITY OF NORTH RIDGEVILLE, OHIO
DEPARTMENT OF ENGINEERING

RIGID PAVEMENT JOINT REPAIR DETAILS

SCALE: NOT TO SCALE | DATE: 10/01/08 | DRWN BY: JAB/TEB | PAV-7

CITY OF NORTH RIDGEVILLE, ENGINEER



W	SEE PAV-1
R1	50' MIN
R2	28' MAX
R3	35'
R4	30'

REV No.	DATE	BY	DESCRIPTION

CITY OF NORTH RIDGEVILLE, OHIO
DEPARTMENT OF ENGINEERING

CUL DE SAC PAVEMENT DETAILS

SCALE: NOT TO SCALE | DATE: 10/01/08 | DRWN BY: JAB/TEB | PAV-8

CITY OF NORTH RIDGEVILLE, ENGINEER

J:\25\6287A Victory Park Soccer Fields Improvement Plan\DRAWINGS\C6.0 MISC DETAILS.dwg, Plotted: Apr 25, 2025 - 3:12pm

REVISION	DATE:	BY:	DESCRIPTION:
	04-25-2025	APA	ISSUE TO CITY

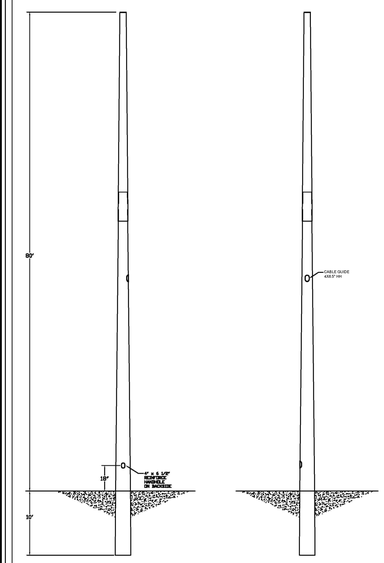
DRAWN BY: CAT
CHECKED BY: APA

BRAMHALL
ENGINEERING AND SURVEYING COMPANY
801 MOORE ROAD AVON, OHIO 44011
(440) 934 - 7878 (440) 934 - 7879 FAX

PREPARED FOR:
VICTORY PARK OHIO
7777 VICTORY LANE
NORTH RDGEVILLE, OH 44039

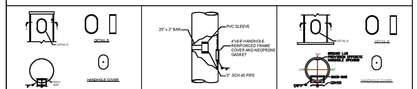
MULTI-SPORT FIELDS AT VICTORY PARK
MISCELLANEOUS DETAILS
CITY OF NORTH RIDGEVILLE, COUNTY OF LORAIN, STATE OF OHIO

SHEET C6.3
JOB NO. 25-6287A



FRONT VIEW

SIDE VIEW



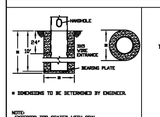
3 X 5" REINFORCE HANDHOLE

CABLE GUIDE

4 X 6 1/2" REINFORCE HANDHOLE

	BASE OD (in)	TOP OD (in)	WALL THC.	LENGHT (ft)	WEIGHT (lbs)
TOP	13.34	7.77	.188	39.73	861
BOTTOM	20	12.58	.188	53	1783

POLE DIMENSION



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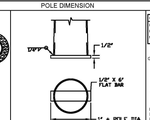


BEARING PLATE

COMPONENT	SPECIFICATION
POLE TOP	ASTM A572 GR. 65
POLE BOTTOM	ASTM A572 GR. 65
MISC. STEEL	ASTM A36

GENERAL NOTES:
1. ALL HARDWARE TO BE GALVANIZED TO ASTM A153.
2. POLE ASSEMBLY TO BE GALVANIZED TO ASTM A123.
3. ALL WELDING TO CONFORM TO AWS D1.1 MOST RECENT EDITION.
4. DESIGN INCORPORATE SLIST FACTOR PER REF CODE.
5. PROVIDE ORIGINAL INSTALLATION INSTRUCTIONS PRIOR TO ASSEMBLY.

FINISH:
☑ GALVANIZED
☐ PAINTED
PAINTED & GALV

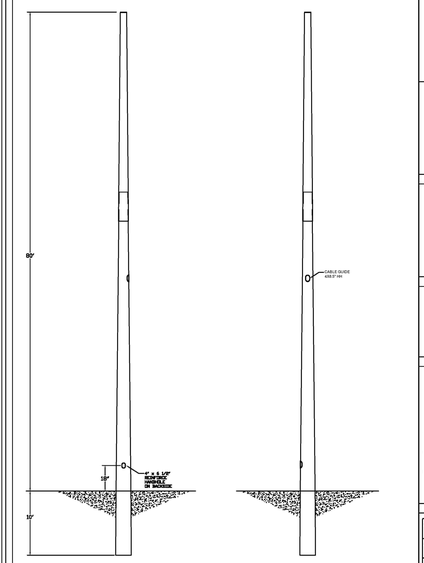
WIND SPEED:
☐ 90 MPH ☐ 110 MPH
☐ 95 MPH ☐ 120 MPH
☐ 100 MPH ☐ ___ MPH

DESIGN CRITERIA:
☑ ASSHTO LTS-1 ☐ IBC
☑ ASSHTO LTS-4 ☐ IBA
☐ AASHTO LTS-5 ☐ UBC

MATERIAL SPECIFICATIONS

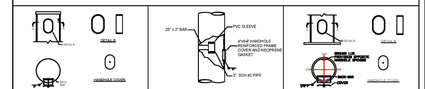
DATE:	REV.:	CHECKED BY:	SCALE: NTS
DRAWING NUMBER: MSPROMAEM	DRAWN BY: DR	QUOTE NUMBER:	

1400 WESTPARK WAY
EULESS, TEXAS
(817) 834-5538



FRONT VIEW

SIDE VIEW



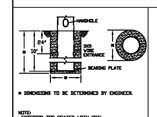
3 X 5" REINFORCE HANDHOLE

CABLE GUIDE

4 X 6 1/2" REINFORCE HANDHOLE

	BASE OD (in)	TOP OD (in)	WALL THC.	LENGHT (ft)	WEIGHT (lbs)
TOP	12.32	6.77	.188	39.61	775
BOTTOM	19	11.58	.188	53	1672

POLE DIMENSION



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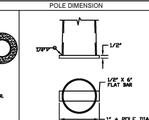


BEARING PLATE

COMPONENT	SPECIFICATION
POLE TOP	ASTM A572 GR. 65
POLE BOTTOM	ASTM A572 GR. 65
MISC. STEEL	ASTM A36

GENERAL NOTES:
1. ALL HARDWARE TO BE GALVANIZED TO ASTM A153.
2. POLE ASSEMBLY TO BE GALVANIZED TO ASTM A123.
3. ALL WELDING TO CONFORM TO AWS D1.1 MOST RECENT EDITION.
4. DESIGN INCORPORATE SLIST FACTOR PER REF CODE.
5. PROVIDE ORIGINAL INSTALLATION INSTRUCTIONS PRIOR TO ASSEMBLY.

FINISH:
☑ GALVANIZED
☐ PAINTED
PAINTED & GALV

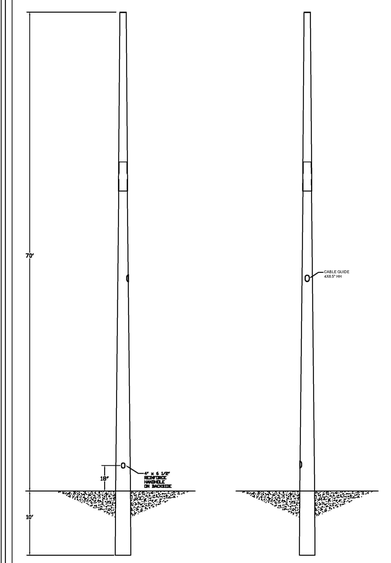
WIND SPEED:
☐ 90 MPH ☐ 110 MPH
☐ 95 MPH ☐ 120 MPH
☐ 100 MPH ☐ ___ MPH

DESIGN CRITERIA:
☑ ASSHTO LTS-1 ☐ IBC
☑ ASSHTO LTS-4 ☐ IBA
☐ AASHTO LTS-5 ☐ UBC

MATERIAL SPECIFICATIONS

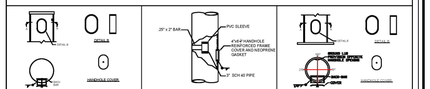
DATE:	REV.:	CHECKED BY:	SCALE: NTS
DRAWING NUMBER: MSPROMXEM	DRAWN BY: DR	QUOTE NUMBER:	

1400 WESTPARK WAY
EULESS, TEXAS
(817) 834-5538



FRONT VIEW

SIDE VIEW



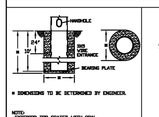
3 X 5" REINFORCE HANDHOLE

CABLE GUIDE

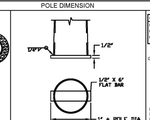
4 X 6 1/2" REINFORCE HANDHOLE

	BASE OD (in)	TOP OD (in)	WALL THC.	LENGHT (ft)	WEIGHT (lbs)
TOP	9.27	5.17	.188	29.23	430
BOTTOM	16	8.58	.188	53	1340

POLE DIMENSION



FOUNDATION



BEARING PLATE

COMPONENT	SPECIFICATION
POLE TOP	ASTM A572 GR. 65
POLE BOTTOM	ASTM A572 GR. 65
MISC. STEEL	ASTM A36

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4. DESIGN INCORPORATE SLIST FACTOR PER REF CODE.
5. PROVIDE ORIGINAL INSTALLATION INSTRUCTIONS PRIOR TO ASSEMBLY.

FINISH:
☑ GALVANIZED
☐ PAINTED
PAINTED & GALV

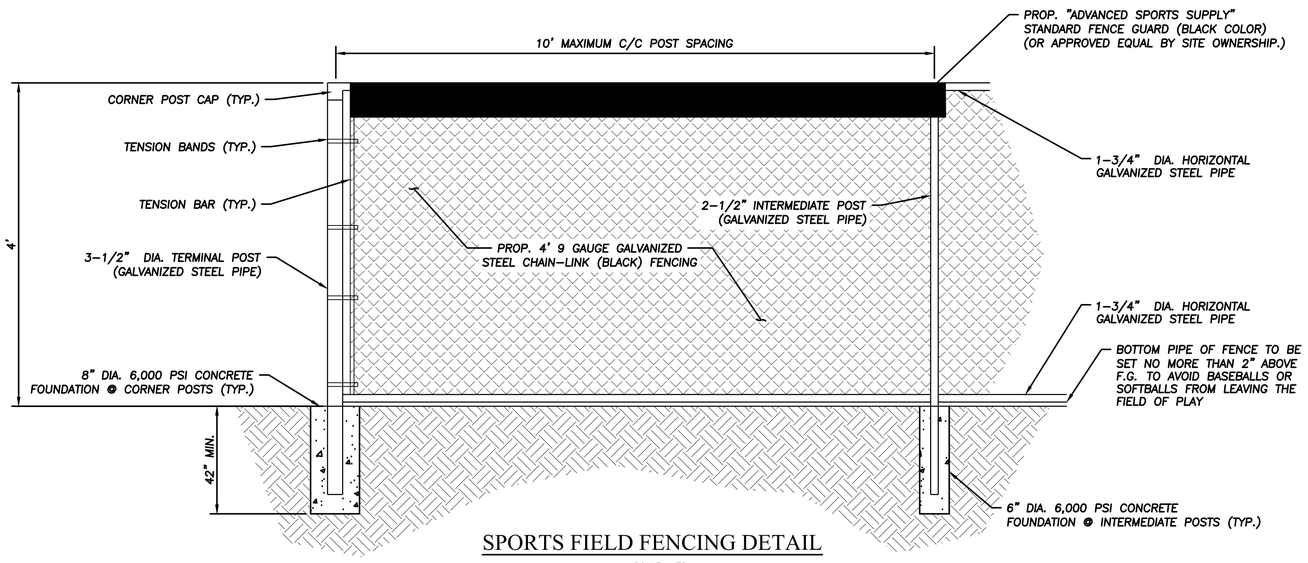
WIND SPEED:
☐ 90 MPH ☐ 110 MPH
☐ 95 MPH ☐ 120 MPH
☐ 100 MPH ☐ ___ MPH

DESIGN CRITERIA:
☑ ASSHTO LTS-1 ☐ IBC
☑ ASSHTO LTS-4 ☐ IBA
☐ AASHTO LTS-5 ☐ UBC

MATERIAL SPECIFICATIONS

DATE:	REV.:	CHECKED BY:	SCALE: NTS
DRAWING NUMBER: MSPTOMXEM	DRAWN BY: DR	QUOTE NUMBER:	

1400 WESTPARK WAY
EULESS, TEXAS
(817) 834-5538



SPORTS FIELD FENCING DETAIL

SCALE: NTS

DATE:	BY:	DESCRIPTION:
04-25-2025	APA	ISSUE TO CITY

REVISION

DRAWN BY: CAT

CHECKED BY: APA

BRAMHALL
ENGINEERING AND SURVEYING COMPANY
801 MOORE ROAD AVON, OHIO 44011
(440) 934 - 7878 (440) 934 - 7879 FAX

PREPARED FOR:

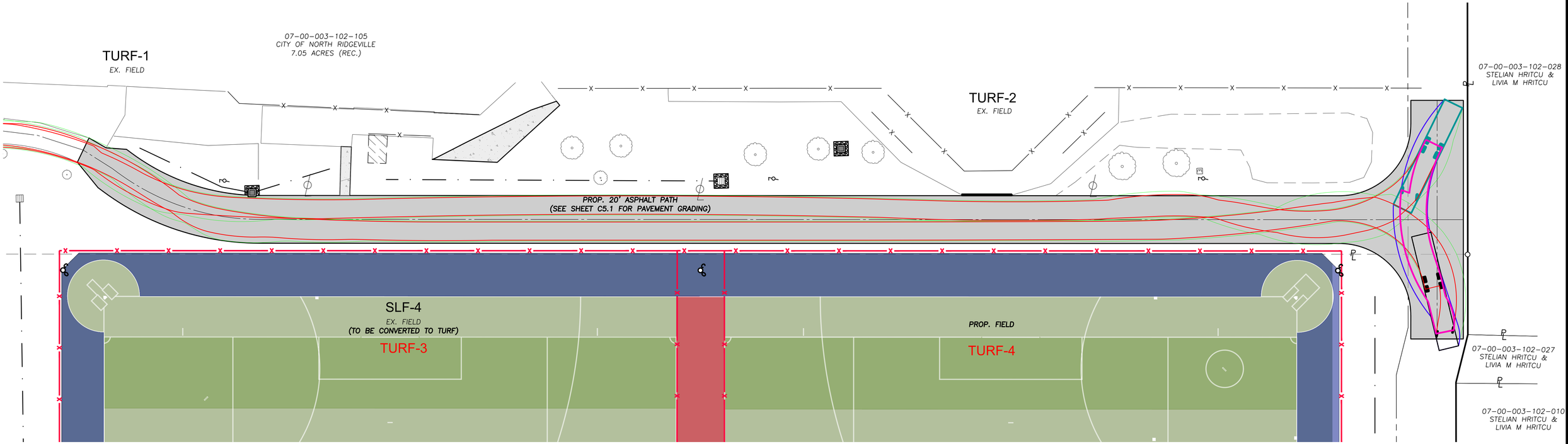
VICTORY PARK OHIO
7777 VICTORY LANE
NORTH RDGEVILLE, OH 44039

MULTI-SPORT FIELDS AT VICTORY PARK
MISCELLANEOUS DETAILS
CITY OF NORTH RIDGEVILLE, COUNTY OF LORAIN, STATE OF OHIO

SHEET
C6.4

JOB NO.
25-6287A

I:\25\6287A Victory Park Soccer Fields Improvement Plan\DRAWINGS\C6.0 MISC DETAILS.dwg, Plotted: Apr 25, 2025 - 3:12pm



GRAPHIC SCALE

0 30 60

15

(IN FEET)

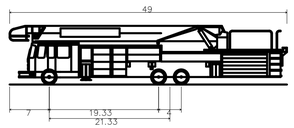
SCALE: 1" = 30'

HATCH LEGEND

PROP. ASPHALT PAVEMENT

PROP. CONCRETE PAVEMENT

VEHICLE SPECIFICATIONS



Fire Truck	
Overall Length	49.000ft
Overall Width	8.330ft
Overall Body Height	10.363ft
Min Body Ground Clearance	0.794ft
Track Width	7.610ft
Lock-to-lock time	6.00s
Max Steering Angle (Virtual)	30.90°

LINE TYPE LEGEND

VEHICLE WHEEL PATH– FORWARD

VEHICLE BODY PATH– FORWARD

VEHICLE WHEEL PATH– REVERSE

VEHICLE BODY PATH– REVERSE

REVISION	DATE:	BY:	DESCRIPTION:
	04-25-2025	APA	ISSUE TO CITY
	–	–	–
	–	–	–
	–	–	–
	–	–	–
	–	–	–
	–	–	–

DRAWN BY: CAT

CHECKED BY: APA

BRAMHALL
ENGINEERING AND SURVEYING COMPANY
801 MOORE ROAD AVON, OHIO 44011
(440) 934 - 7878 (440) 934 - 7879 FAX

PREPARED FOR:

VICTORY PARK OHIO
7777 VICTORY LANE
NORTH RDGEVILLE, OH 44039

MULTI-SPORT FIELDS AT VICTORY PARK
VEHICLE TRACKING PLAN
CITY OF NORTH RIDGEVILLE, COUNTY OF LORAIN,
STATE OF OHIO

SHEET
C7.0

JOB NO.
25-6287A

I:\25\6287A Victory Park Soccer Fields Improvement Plan\DRAWINGS\C7.0 VEHICLE TRACKING PLAN.dwg, Plotted: Apr 25, 2025 - 3:12pm

SWP3 LEGEND OF SYMBOLS AND LINETYPES

- MgA — SOIL TYPE
- IP — INLET PROTECTION
- TS — TEMPORARY SEEDING & MULCHING
- PS — PERMANENT SEEDING & MULCHING
- CE — CONSTRUCTION ENTRANCE
- WO — WASHOUT PIT
- SA — STAGING AREA (SEE NOTE 4)
- SF — FILTER FABRIC FENCE/ FILTER SOCK
- W/L — WORK LIMITS
- SOIL BOUNDARY LIMITS
- 604 / 605 — EXISTING CONTOURS
- 604 / 605 — PROPOSED CONTOURS

GRAPHIC SCALE
0 15 30 60
(IN FEET)
SCALE: 1" = 30'

SITE INFORMATION

LIMITS OF DISTURBED AREA = 6.65 ACRES

PRE-CONSTRUCTION
AREA OF WOODS/GRASS/FARM FIELD = 6.46 ACRES
AREA OF PAVEMENT/ROOFTOP = 0.19 ACRES

POST-CONSTRUCTION
AREA OF PAVEMENT/ROOFTOP/TURF = 5.41 ACRES
AREA OF GRASS/LANDSCAPE = 1.24 ACRES

RUNOFF COEFFICIENT PRE-CONSTRUCTION SITE:
((6.46 AC) * (0.50) + (0.19 AC) * (0.95))/6.65 = 0.51

RUNOFF COEFFICIENT POST-CONSTRUCTION SITE:
((5.41 AC) * (0.95) + (1.24 AC) * (0.50))/6.65 = 0.87

IMPERVIOUSNESS FOR PRE-CONSTRUCTION = (0.51) * 6.65 AC = 3.39
IMPERVIOUSNESS FOR POST-CONSTRUCTION = (0.87) * 6.65 AC = 5.79
PERCENT IMPERVIOUSNESS CREATED BY CONSTRUCTION = 71%

SWP3 AUTHORIZATION AGENT CONTACT INFORMATION:

AARON APPELL, P.E., CPESC No. 5794
BRAMHALL ENGINEERING AND SURVEYING COMPANY
801 MOORE ROAD
AVON, OHIO 44011
(440) 934-7878

CERTIFIED PROFESSIONAL IN EROSION AND SEDIMENT CONTROL — CPESC — Aaron Appell — No. 5794

NOTES

1. THE FOLLOWING SOIL TYPES ARE FOUND WITHIN THE PROJECT LIMITS

   Cz – UDORTHENTS
   MgA – MAHONING SILT LOAM, 0 TO 2 PERCENT SLOPES

   SOIL DATA REFERENCED FROM WEB SOIL SURVEY LORAIN COUNTY, OHIO (OH093) SOILS MAPS VERSION 23, AUGUST 28, 2024.

2. WASHOUT PIT LOCATION TO BE CONFIRMED WITH SITE SUPERINTENDENT. LOCATION SHOWN FOR INTENT ONLY AND IS APPROXIMATE.

3. ALL STORM SEWER SHALL BE JETTED AND CLEANED PRIOR TO OPENING.

4. ALL FUEL TANKS & DRUMS, DUMPSTER FOR CONSTRUCTION DEBRIS, AND DISPOSAL/STORAGE OF SOLID, SANITARY AND OR TOXIC WASTES SHALL BE WITHIN THE STAGING AREA LIMITS, IF NEEDED.

5. ALL EROSION CONTROL MEASURES SHALL FOLLOW THE MOST CURRENT ODNR RAINWATER AND LAND DEVELOPMENT MANUAL.

PROJECT DESCRIPTION

1. THE PROJECT INCLUDES THE CONSTRUCTION OF TWO TURF MULTI-SPORT FIELDS, A PAVED ACCESS DRIVE, AND DRAINAGE IMPROVEMENTS WITHIN AN EXISTING PARK.

PRIOR LAND USE WAS A SPORTS FIELD & WOODS.

2. THE ESTIMATED START DATE OF CONSTRUCTION IS JUNE 1, 2025 AND THE ESTIMATED COMPLETION DATE IS APRIL 1, 2026.

SITE/ OPERATOR CONTACT INFORMATION:

COMPANY: TBD
CONTACT: TBD
ADDRESS: TBD

SITE LOCATION INFORMATION

CITY OF NORTH RIDGEVILLE LORAIN COUNTY, OHIO

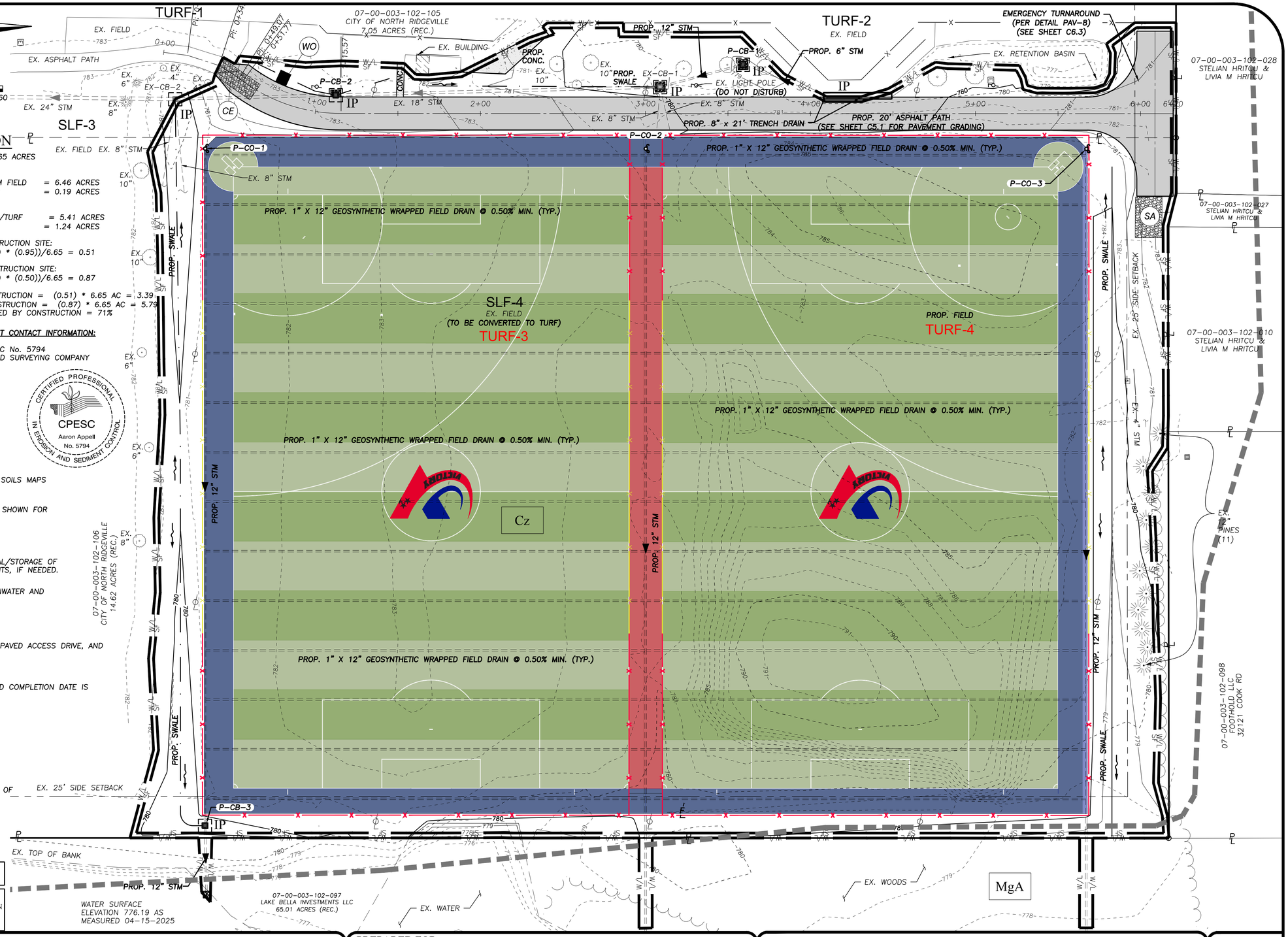
NAME OF WATERSHED/SUBSEQUENT RECEIVING WATER(S)
SITE DISCHARGES TO A RETENTION BASIN LOCATED ON THE FAR SIDE OF THE EXISTING PARK.

SITE ADDRESS
EAST SIDE OF VICTORY LANE, APPROXIMATELY 750 FEET SOUTH OF THE INTERSECTION OF VICTORY LANE AND LORAIN ROAD.

OWNER:
VICTORY PARK OHIO
7777 VICTORY LANE NORTH
RIDGEVILLE, OHIO 44039
CONTACT: DON MOULD

CONTRACTOR SHALL INSTALL ALL SEDIMENT CONTROL MEASURES WITHIN 7 DAYS OF CLEARING AND GRUBBING.

PRIOR TO CONSTRUCTION STARTING THE CONTRACTOR AND SUBCONTRACTOR SHALL COMPLETE THE SIGNATURE LIST FOUND ON SHEET C8.3 AND SUBMIT IT TO THE CITY OF NORTH RIDGEVILLE ENGINEERING DEPARTMENT



DATE:	BY:	DESCRIPTION:
04-25-2025	APA	ISSUE TO CITY

REVISION

DRAWN BY: GEW
CHECKED BY: APA

BRAMHALL
ENGINEERING AND SURVEYING COMPANY
801 MOORE ROAD AVON, OHIO 44011
(440) 934 - 7878 (440) 934 - 7879 FAX

PREPARED FOR:
VICTORY PARK OHIO
7777 VICTORY LANE
NORTH RDGEVILLE, OH 44039

MULTI-SPORT FIELDS AT VICTORY PARK
STORMWATER POLLUTION PREVENTION PLAN
CITY OF NORTH RIDGEVILLE, COUNTY OF LORAIN, STATE OF OHIO

SHEET C8.0
JOB NO. 25-6287A

J:\25\6287A Victory Park Soccer Fields Improvement Plan\DRAWINGS\C8.0 STORMWATER POLLUTION PREVENTION PLAN.dwg, Plotted: Apr 25, 2025 - 3:13pm

CITY OF NORTH RIDGEVILLE

SWP3 STANDARD GENERAL NOTES

GENERAL EROSION AND SEDIMENT NOTES:
EROSION CONTROL SHALL CONSIST OF TEMPORARY CONTROL MEASURES AS DETAILED ON THE PLANS OR ORDERED BY THE GOVERNING AGENCY DURING THE LIFE OF THE CONTRACT TO CONTROL SOIL EROSION AND SEDIMENTATION THROUGH USE OF EROSION CONTROL BEST MANAGEMENT PRACTICES (BMP'S).

TEMPORARY EROSION AND SEDIMENT CONTROL ITEMS, THE LOCATION AND SIZE OF WHICH ARE DETAILED ON THE PLANS, SHALL BE INSTALLED BY THE CONTRACTOR PRIOR TO COMMENCEMENT OF ANY CLEARING OR EARTHWORK OPERATIONS, CONDITIONS THAT DEVELOP DURING CONSTRUCTION THAT WERE NOT FORESEEN DURING DESIGN STAGE; THAT REQUIRE ADDITIONAL OR MODIFIED TEMPORARY OR PERMANENT BMP'S SHALL BE APPROVED BY THE CITY ENGINEER AND REFLECTED ON THE REVISED SWP3.

SEDIMENT PONDS, SEDIMENT TRAPS, AND PERIMETER SEDIMENT CONTROLS, SHALL BE IMPLEMENTED AS THE FIRST STEP OF GRADING AND WITHIN 7 DAYS FROM THE START OF GRUBBING. THEY SHALL CONTINUE TO FUNCTION UNTIL DISTURBED AREAS ARE RE-ESTABLISHED WITH TEMPORARY VEGETATION. NO SEDIMENT CONTROLS SHALL BE PLACED IN A STREAM.

TRENCH DEWATERING OR GROUND WATER, WHICH CONTAINS SEDIMENT SHALL PASS THROUGH A SEDIMENT SETTLING POND OR EQUALLY EFFECTIVE SEDIMENT CONTROL DEVICE. ALTERNATIVES MAY INCLUDE DEWATERING INTO SUMP PIT, FILTER BAG OR EXISTING VEGETATED UPSLOPE AREA. SEDIMENT LADEN WATER SHALL NOT BE DISCHARGED TO STREAMS OR THE STORM SEWER SYSTEM.

THE SWP3, NOTES AND DETAILED DRAWINGS ARE INTENDED TO SERVE AS BASIC GUIDELINES. ALL EROSION CONTROL PRACTICES SHALL MEET THE STANDARDS AND SPECIFICATIONS OF THE ODNR RAINWATER AND LAND DEVELOPMENT MANUAL.

ADDITIONAL EROSION CONTROL BMP'S MAY BE MANDATED BY THE GOVERNING AGENCY AT ANY TIME DURING THIS PROJECT AS UNFORESEEN SITUATIONS MAY ARISE THAT WARRANT FURTHER EROSION AND SEDIMENT CONTROL PRACTICES.

CLEARING AND GRUBBING
LIMITS OF CLEARING AND GRADING SHALL BE CLEARLY MARKED ON THE SITE WITH SIGNAGE, FLAGGING AND/OR ORANGE CONSTRUCTION FENCING.

THE CONTRACTOR SHALL LIMIT THE SURFACE AREA OF ERODIBLE EARTH MATERIAL EXPOSED BY EXCAVATION, BORROW, AND FILL OPERATIONS AND PROVIDE IMMEDIATE PERMANENT OR TEMPORARY CONTROL MEASURES TO PREVENT CONTAMINATION OF ADJACENT STREAMS OR OTHER WATER COURSES, LAKES, PONDS, WETLANDS OR OTHER AREAS OF WATER IMPOUNDMENT.

CONSTRUCTION ENTRANCE
A STONED CONSTRUCTION ENTRANCE SHALL BE INSTALLED FOR ALL INGRESS & EGRESS TO THE SITE. THE MINIMUM DIMENSIONS OF THE DRIVE SHALL BE 20 FT. WIDE AND 50 FT. LONG. THE STONE SHALL BE 6 INCHES DEEP WITH AN UNDERLAIN GEOTEXTILE FABRIC. THE DRIVE SHALL BE INSTALLED PRIOR TO ANY CLEARING AND GRUBBING. SEDIMENTS SHALL BE REMOVED FROM THE ROADWAYS DAILY.

STABILIZATION
PERMANENT AND TEMPORARY STABILIZATION ARE DEFINED IN PART VII OF THE OEPA AUTHORIZATION FOR STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM.

OHIO EPA PERMIT NO. OH000003 EFFECTIVE DATE 4/21/08 – EXPIRATION DATE 4/20/13 DISTURBED AREAS MUST BE STABILIZED AS SPECIFIED IN THE FOLLOWING TABLES BELOW:

TABLE 1: PERMANENT STABILIZATION

AREA REQUIRING PERMANENT STABILIZATION.	TIME FRAME TO APPLY EROSION CONTROL
ANY AREA THAT WILL LIE DORMANT FOR ONE YEAR OR MORE	WITHIN SEVEN DAYS OF THE MOST RECENT DISTURBANCE
ANY AREA WITHIN 50 FT. OF A STREAM AND AT FINAL GRADE	WITHIN TWO DAYS OF REACHING FINAL GRADE
ANY OTHER AREAS AT FINAL GRADE	WITHIN SEVEN DAYS OF REACHING FINAL GRADE WITHIN THAT AREA

TEMPORARY SEEDING
SEEDING AREAS SHALL BE INSPECTED AND WHERE THE SEED HAS NOT PRODUCED 80% COVER SHALL BE RESEEDED AS NECESSARY BY THE CONTRACTOR. AREAS SHALL BE STABILIZED WITH STRAW MULCH WHEN CONDITIONS PROHIBIT SEEDING.

STRAW MULCHING SHALL BE APPLIED AT A RATE 2-3 STANDARD 45 LB. BALES PER 1DDD SQ.FT. OF DISTURBED AREA OR 2 TONS PER ACRE. ALL HYDROSEEDING MUST BE STRAW MULCHED ACCORDING TO THE ABOVE SPECIFICATIONS UNLESS IT IS WATERED WEEKLY.

ALL DETENTION PONDS, RETENTION PONDS, WATER QUALITY STRUCTURES, SEDIMENT PONDS, SEDIMENT TRAPS, EARTHEN DIVERSIONS OR EMBANKMENTS SHALL BE SEEDED AND STRAW MULCHED WITHIN 7 DAYS OF COMPLETED CONSTRUCTION.

TABLE 2: TEMPORARY STABILIZATION

AREA REQUIRING PERMANENT STABILIZATION.	TIME FRAME TO APPLY EROSION CONTROL
ANY DISTURBED AREAS WITHIN 50 FT. OF A STREAM AND NOT AT FINAL GRADE	WITHIN TWO DAYS OF THE MOST RECENT DISTURBANCE IF THE AREA WILL REMAIN IDLE FOR MORE THAN 14 DAYS
FOR ALL CONSTRUCTION ACTIVITIES, ANY DISTURBED AREAS THAT WILL BE DORMANT FOR MORE THAN 21 DAYS BUT LESS THAN ONE YEAR, AND NOT WITHIN 50 FT. OF STREAM	WITHIN SEVEN DAYS OF THE MOST RECENT DISTURBANCE WITHIN THE AREA FOR RESIDENTIAL SUBDIVISIONS, DISTURBED AREAS MUST BE STABILIZED AT LEAST SEVEN DAYS PRIOR TO TRANSFER OF PERMIT COVERAGE FOR THE INDIVIDUAL LOT(S)
DISTURBED AREAS THAT WILL BE IDLE OVER WINTER	PRIOR TO ONSET OF WINTER WEATHER (NOV.1) STRAW MULCH 2 TO 3 BALES PER 1000 SQ.FT. AND OR 2 TONS PER ACRE.

PERMANENT STABILIZATION OF CONVEYANCE CHANNELS
OPERATIONS SHALL UNDERTAKE SPECIAL MEASURES TO STABILIZE CHANNELS AND OUTFALLS AND PREVENT EROSIVE FLOWS. MEASURES MAY INCLUDE SEEDING, DORMANT SEEDING (AS DEFINED IN THE LATEST EDITION OF "ODNR RAINWATER AND LAND DEVELOPMENT MANUAL") MULCHING, EROSION CONTROL MATTING, SODDING, RIPRAP NATURAL CHANNEL DESIGN WITH BIO ENGINEERING TECHNIQUES OR ROCK CHECK DAMS.

SOIL TRANSPORT ONTO PUBLIC ROADS
WHERE SOIL IS TRANSPORTED ONTO PUBLIC ROAD SURFACES, THE ROADS SHALL BE CLEANED THOROUGHLY BY EITHER SWEEPING OR SCRAPING AT THE END OF EACH WORK DAY OR FREQUENTLY, IN ORDER TO ENSURE PUBLIC SAFETY, STREET WASHING SHALL NOT BE PERMITTED.

ERODIBLE MATERIAL RAMPS IN STREETS TO ENABLE EQUIPMENT TO CROSS CURBS SHALL BE PROPERLY REMOVED IMMEDIATELY AFTER USE.

SILT FENCE & DIVERSIONS
SHEET FLOW RUNOFF FROM DENUDED AREAS SHALL BE INTERCEPTED BY SILT FENCE OR DIVERSIONS TO PROTECT ADJACENT PROPERTIES AND WATER RESOURCES FROM SEDIMENT TRANSPORTED VIA SHEET FLOW. WHERE INTENDED TO PROVIDE SEDIMENT CONTROL. SILT FENCES SHALL BE PLACED ON A LEVEL CONTOUR. THE EPA PERMIT No. OHC00DDD3 DOES NOT PRECLUDE THE USE OF OTHER SEDIMENT BARRIERS DESIGNED TO CONTROL SHEET FLOW RUNOFF. SILT FENCE IS NOT PERMITTED TO BE USED FOR CONTROLLING CONCENTRATED SURFACEWATER FLOW (ONLY SHEET FLOW). STORMWATER DIVERSION PRACTICES SHALL BE USED TO KEEP RUNOFF AWAY FROM DISTURBED AREAS AND STEEP SLOPES WHERE PRACTICAL. SUCH DEVICES, WHICH INCLUDE SWALES, DIKES OR BERMS, MAY RECEIVE FROM AREAS UP TO 1D ACRES.

INLET PROTECTION
INLET PROTECTION IS MANDATORY.

NON-SEDIMENT POLLUTANTS CONTROL
NO SOLID (OTHER THAN SEDIMENT) OR LIQUID WASTE, INCLUDING BUILDING MATERIALS, SHALL BE DISCHARGED IN STORMWATER RUNOFF. ALL NECESSARY BMP'S MUST BE IMPLEMENTED TO PREVENT THE DISCHARGE OF NON-SEDIMENT POLLUTANTS TO THE DRAINAGE SYSTEM OF THE SIDE OR SURFACE WATERS OF THE STATE. UNDER NO CIRCUMSTANCES SHALL CONCRETE TRUCKS WASH OUT DIRECTLY INTO A DRAINAGE CHANNEL, STORM SEWER OR SURFACE WATERS OF THE STATE. NO EXPOSURE OF STORMWATER TO WASTE MATERIALS IS RECOMMENDED.

TRENCH AND GROUND WATER CONTROL
THERE SHALL BE NO TURBID DISCHARGES TO SURFACE WATERS OF THE STATE RESULTING FROM DEWATERING ACTIVITIES. IF TRENCH OR GROUND WATERS CONTAIN SEDIMENT, IT MUST PASS THROUGH A SEDIMENT SETTLING POND OR OTHER EQUALLY EFFECTIVE SEDIMENT CONTROL DEVICE, PRIOR TO BEING DISCHARGED FROM THE CONSTRUCTION SITE. ALTERNATIVELY, SEDIMENT MAY BE REMOVED BY SETTLING IN PLACE OR DEWATERING INTO A SUMP PIT, FILTER BAG OR COMPARABLE PRACTICE. GROUND WATER DEWATERING WHICH DOES NOT CONTAIN SEDIMENT OR OTHER POLLUTANTS ARE NOT REQUIRED TO BE TREATED PRIOR TO DISCHARGE, HOWEVER, CARE MUST BE TAKEN WHEN DISCHARGING GROUND WATER TO ENSURE THAT IT DOES NOT BECOME POLLUTANT-LADEN BY TRAVERSING OVER DISTURBED SOILS OR OTHER POLLUTANT SOURCES.

MAINTENANCE
ALL TEMPORARY AND PERMANENT CONTROL PRACTICES SHALL BE MAINTAINED AND REPAIRED AS NEEDED TO ENSURE CONTINUED PERFORMANCE OF THEIR INTENDED FUNCTION. ALL SEDIMENT CONTROL PRACTICES MUST BE MAINTAINED IN A FUNCTIONAL CONDITION UNTIL ALL UP SLOPE AREAS THEY CONTROL ARE PERMANENTLY STABILIZE. THE CONTRACTOR SHALL COMPLY WITH THE MAINTENANCE SCHEDULE INCLUDED IN THE APPROVED PLANS FOR THE PROPOSED EROSION CONTROLS. A WRITTEN DOCUMENT CONTAINING THE SIGNATURES OF ALL CONTRACTORS AND SUB- CONTRACTORS INVOLVED IN THE IMPLEMENTATION OF THE BMPS MUST BE MAINTAINED AS PROOF ACKNOWLEDGING THAT THEY REVIEWED AND UNDERSTAND THE CONDITIONS AND RESPONSIBILITIES OF THE SWP3

INSPECTION
ALL STORMWATER CONTROLS ON THE SITE ARE INSPECTED AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS AFTER ANY STORM EVENT GREATER THAN ONE-HALF INCH OF RAIN PER 24 HOUR PERIOD. A WRITTEN RECORD DOCUMENTING THE RESULTS OF THESE INSPECTIONS MUST BE CREATED AND MAINTAINED WITH THE SWP3. DISTURBED AREAS AND AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION SHALL BE INSPECTED FOR EVIDENCE OF OR THE POTENTIAL FOR, POLLUTANTS ENTERING THE EROSION AND SEDIMENT CONTROL MEASURES IDENTIFIED IN THE SWP3 SHALL BE OBSERVED TO ENSURE THAT THOSE ARE OPERATING CORRECTLY. DISCHARGE LOCATIONS SHALL BE INSPECTED TO ASCERTAIN WHETHER EROSION AND SEDIMENT CONTROL MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT IMPACTS TO THE RECEIVING WATERS. LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE SHALL BE INSPECTED FOR EVIDENCE OF OFF-SITE VEHICLE TRACKING.

WASTE DISPOSAL
CONTAINERS (e.g., DUMPSTER, DRUMS) SHALL BE AVAILABLE FOR DISPOSAL OF DEBRIS, TRASH, HAZARDOUS OR PETROLEUM WASTE, ALL CONTAINERS MUST BE COVERED AND LEAK-PROOF. ALL WASTE MATERIAL SHALL BE DISPOSED OF AT FACILITIES APPROVED FOR THE PERTINENT MATERIAL.

CLEAN HARD FILL
BRICKS, HARDENING CONCRETE, AND SOIL WASTE SHALL BE FREE FROM CONTAMINATION WHICH MAY LEACH CONSTITUENTS TO WATERS OF THE STATE, CLEAN CONSTRUCTION WASTE THAT WILL BE DISPOSED INTO THE PROPERTY, SHALL BE SUBJECT TO ANY LOCAL PROHIBITIONS FROM THIS TYPE OF DISPOSAL.

CONSTRUCTION & DEMOLITION DEBRIS
ALL CONSTRUCTION & DEMOLITION DEBRIS (C&DD) WASTE SHALL BE DISPOSED OF IN AN OHIO EPA APPROVED C&DD LANDFILL AS REQUIRED BY OHIO REVISED CODE (ORC) 3714, CONSTRUCTION DEBRIS MAY BE DISPOSED OF ON-SITE, BUT DEMOLITION DEBRIS MUST BE DISPOSED IN A OHIO EPA APPROVED LANDFILL ALSO, MATERIALS WHICH CONTAIN ASBESTOS MUST COMPLY WITH AIR POLLUTION REGULATIONS (SEE OHIO ADMINISTRATIVE CODE (OAC) 3745-2D.

CONSTRUCTION CHEMICAL COMPOUNDS
AREA SHALL BE DESIGNATED FOR MIXING OR STORAGE OF COMPOUNDS SUCH AS FERTILIZERS, LIME ASPHALT, OR CONCRETE, THESE DESIGNATED AREAS SHALL BE LOCATED AWAY FROM WATERCOURSES, DRAINAGE DITCHES, FIELD DRAINS, OR OTHER STORMWATER DRAINAGE AREA.

EQUIPMENT FUELING & MAINTENANCE
EQUIPMENT FUELING & MAINTENANCE SHALL BE IN DESIGNATED AREAS ONLY.

A SPILL PREVENTION CONTROL AND COUNTERMEASURES
A SPILL PREVENTION CONTROL AND COUNTERMEASURES (SPCC) PLAN MUST BE DEVELOPED FOR SITES WITH ONE ABOVE-GROUND STORAGE TANK OF 88D GALLONS OR MORE, TOTAL ABOVE-GROUND STORAGE OF 1,330 GALLONS, OR BELOW-GROUND STORAGE OF 4,200 GALLONS OF FUEL.

CONCRETE WASH WATER
ALL DESIGNATED CONCRETE WASHOUT AREAS SHALL BE LOCATED AWAY FROM WATERCOURSES, DRAINAGE DITCHES, FIELD DRAINS, OR OTHER STORMWATER DRAINAGE AREAS.

CONTAMINATED SOILS
ALL CONTAMINATED SOIL MUST BE TREATED AND/OR DISPOSED IN OHIO EPA APPROVED SOLID WASTE MANAGED FACILITIES OR HAZARDOUS WASTE TREATMENT, STORAGE OR DISPOSAL FACILITIES (TSDFs).

SPILL REPORTING REQUIREMENTS
THE CONTRACTOR SHALL CONTACT THE OHIO EPA AT 800-282-9378 AND THE LOCAL FIRE DEPARTMENT IN THE EVENT OF A PETROLEUM SPILL (>25 GALLONS) OR THE PRESENCE OF SHEEN.

OPEN BURNING
OPEN BURNING IS NOT PERMITTED.

DUST CONTROLS/SUPPRESSANTS
USED OIL MAY NOT BE USED AS A DUST SUPPRESSANT. NO DUST SUPPRESSANT SHALL BE APPLIED NEAR CATCH BASINS, STORM SEWERS OR OTHER DRAINAGE WAYS.

STREAM CROSSINGS
STREAM CROSSINGS SHALL BE CONSTRUCTED ENTIRELY OF STONE, ROCK, OR CLEAN RECYCLED CONCRETE. SOIL OR EARTHEN MATERIAL MAY NOT BE USED. A 2D FT. STONE APRON ON EITHER SIDE OF THE STREAM SHALL BE CONSTRUCTED TO PREVENT LOCALIZED SEDIMENTATION. THE CHANNEL BED AND BANKS SHALL BE RESTORED, AND ALL DISTURBED AREAS OF THE BANK WITHIN 50 FT. OF THE STREAM SHALL BE STABILIZED WITH SEED AND STRAW MULCH WITHIN 2 DAYS OF THE DISTURBANCE.

PERMITS
THIS SITE IS COVERED UNDER OHIO EPA CONSTRUCTION GENERAL PERMIT # 3GC14887*AG

THIS SITE IS COVERED UNDER OEPA / ARMY 401 / 404 PERMIT # N/A

STRUCTURAL BMP'S
PERMANENT BMP'S FOR POST CONSTRUCTION TREATMENT OF STORMWATER (CONVERSION OF SEDIMENT LAND) TO STORMWATER POND SHALL NOT BE INSTALLED UNTIL 8D% OF THE DISTURBED AREA IS STABILIZED.

SEEDING AND MULCHING
SEDIMENT CONTROL SHALL BE ACCOMPLISHED BY SEEDING AND MULCHING IMMEDIATELY UPON COMPLETION OF EXCAVATION OR FILL AND FINISHED GRADING IN ACCORDANCE WITH ITEM 659 OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS OR AS DIRECTED BY THE ENGINEER. THE FOLLOWING PRO-MIXTURE SHALL BE USED FOR SEEDING: S-21 CERTIFIED KENTUCKY BLUE GRASS - 35% PENNLAWN FESCUE - 25% MANHATTEN II RYEGRASS - 40% FERTILIZER - 10#/10DD S.F. (12-12-12) MULCH - STRAW - 2 TONS/ACRE RESTORATION OF ALL DISTURBED AREAS SHALL IMMEDIATELY FOLLOW EXCAVATION AND GRADING OPERATIONS. DELAY IN RESTORATION SHALL NECESSITATE TEMPORARY EROSION CONTROL MEASURES APPROVED BY THE ENGINEER AND AT THE CONTRACTOR'S COST.

RIPARIAN BUFFERS
THE RIPARIAN BUFFER (SETBACK) FOR ALL MAJOR AND MINOR DITCHES SHALL BE MARKED IN THE FIELD WITH ORANGE CONSTRUCTION FENCING BY THE CONSTRUCTION SITE OPERATOR PRIOR TO ANY EARTH DISTURBING ACTIVITIES.

ENFORCEMENT
ALL DEVELOPMENT SITES ARE SUBJECT TO INSPECTIONS BY THE CITY OF NORTH RIDGEVILLE AUTHORIZED AGENT(S) UNDER THE DIRECTION OF THE A LICENSED PROFESSIONAL ENGINEER TO ENSURE COMPLIANCE WITH THE APPROVED SITE DEVELOPMENT PLAN OR SWM PLAN

IF IT IS FOUND THAT THE OPERATIONS ARE BEING CONDUCTED IN VIOLATION OF THE APPROVED SITE DEVELOPMENT PLAN AND SWM PLAN, A STOP-WORK ORDER MAY BE ISSUED BY THE CITY OF NORTH RIDGEVILLE UNTIL THE IDENTIFIED VIOLATIONS CEASE.

AFTER ISSUANCE OF A STOP-WORK ORDER PROVIDED IN THE PARAGRAPH ABOVE, BUT BEFORE THE IMPOSITION OF ANY FINES, THE APPLICANT SHALL HAVE TWO (2) BUSINESS DAYS TO REQUEST A MEETING WITH THE CITY LAW DIRECTOR AND THE CITY ENGINEER TO SHOW CAUSE WHY THE WORK SHOULD NOT BE STOPPED.

FOLLOWING THE ISSUANCE OF A STOP-WORK ORDER, THE CITY OF NORTH RIDGEVILLE SHALL DETERMINE IF AND WHEN THE DEVELOPMENT MAY PROCEED. ANY DETERMINATION BY THE CITY OF NORTH RIDGEVILLE PURSUANT TO THIS SECTION IS A FINAL ORDER FOR THE PURPOSE OF JUDICIAL REVIEW.

VIOLATIONS
THE CITY OF NORTH RIDGEVILLE SHALL NOTIFY THE STORM WATER PERMITTEE OF ANY VIOLATIONS OBSERVED IN WRITING, SAID NOTICE SHALL INDICATE THE EXACT NATURE OF THE VIOLATIONS AND OTHER SPECIFIC CORRECTIONS WHERE ARE REQUIRED.

THE PERMITTEE SHALL COMPLY WITH THE TIMELINE FOR CORRECTIONS SPECIFIED BELOW. TIMELINE EXTENSIONS FOR ADVERSE WEATHER CONDITIONS MAY BE GRANTED UPON APPROVAL OF THE CITY ENGINEER.

NATURE OF VIOLATION:	NUMBER OF DAYS FROM INSPECTION TO CORRECT FUNCTIONING OF CONTROL PRACTICE:
SILT FENCE	WITHIN THREE (3) DAYS
OUTLET CONTROL STRUCTURE	WITHIN THREE (3) DAYS
TEMPORARY OR PERMANENT STABILIZATION WITHIN 50' OF DRAINAGE CHANNELS	WITHIN THREE (3) DAYS
TEMPORARY OR PERMANENT STABILIZATION FOR ALL OTHER DISTURBED AREAS	WITHIN THREE (3) DAYS
STABILIZED CONSTRUCTION ENTRANCE	WITHIN THREE (3) DAYS
PUMPING SEDIMENT-LADEN DISCHARGE INTO DRAINAGE CHANNEL	IMMEDIATELY UPON NOTICE
SEDIMENT SETTLING POND	WITHIN TEN (10) DAYS
ANY OTHER CONTROL PRACTICE NOT ADDRESSED IN THIS TABLE	WITHIN THREE (3) DAYS

PENALTIES SUBSEQUENT TO ISSUANCE OF STOP -WORK ORDER
SUBSEQUENT TO ISSUANCE OF A STOP-WORK ORDER, PENALTIES MAY BE IMPOSED ACCORDING TO THE CITY OF NORTH RIDGEVILLE CODIFIED ORDINANCE 1D56.08(G)(1)(A),1056.08(G)(1)(B) or 1D56.08(G)(1)(C).

REV. 11/22/16 OCTOBER 1, 2008

REVISION	DATE:	BY:	DESCRIPTION:
	04-25-2025	APA	ISSUE TO CITY

DRAWN BY: GEW

CHECKED BY: APA

BRAMHALL
ENGINEERING AND SURVEYING COMPANY
801 MOORE ROAD AVON, OHIO 44011
(440) 934 - 7878 (440) 934 - 7879 FAX

PREPARED FOR:
VICTORY PARK OHIO
7777 VICTORY LANE
NORTH RDGEVILLE, OH 44039

MULTI-SPORT FIELDS AT VICTORY PARK
SWP3 NOTES & DETAILS
CITY OF NORTH RIDGEVILLE, COUNTY OF LORAIN, STATE OF OHIO

SHEET C8.1

JOB NO. 25-6287A

J:\25628?A Victory Park Soccer Fields Improvement Plan\DRAWINGS\C8.1-C8.3 SWP3 NOTES AND DETAILS.dwg, Plotted: Apr 25, 2025 - 3:13pm

Concrete Washout Areas

Installation:

1. Concrete wash water shall not be allowed to flow to streams, ditches, storm drains, or any other water conveyance and washout pits shall be situated a minimum of fifty (50) feet from them.
2. Field tile or other subsurface drainage structures within 10 ft. of the sump shall be cut and plugged.
3. Ensure a stable path is provided for concrete trucks to reach the washout area.
4. A highly visible sign that reads "Concrete Washout Area" shall be erected adjacent to the washout pit.
5. Surface runoff generated from upslope areas shall be diverted away from below-grade washout pits so as not to flow into them.
6. A single centralized washout area may be utilized for multiple sublots.

Maintenance:

7. The washout pit must be inspected frequently to ensure the liner is intact.
8. Once 75% of the original volume of the washout pit is filled or if the liner is torn, the material must be removed and properly disposed of once it is completely hardened. Once the hardened concrete is removed, the liner must be replaced (if torn). A new pit must be constructed if the original structure is no longer suitable.

Removal:

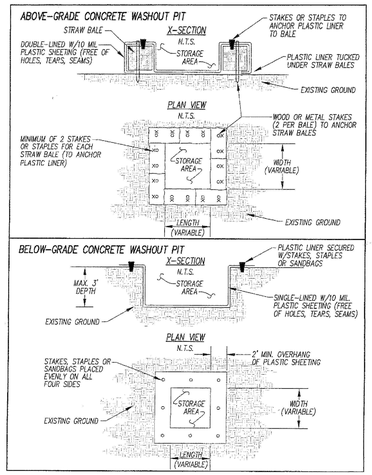
9. Once the washout pit is no longer needed, ensure all washout material has completely hardened, then remove and properly dispose of all materials. If straw bales were used, they can be spread as mulch.
10. Prefabricated containers specifically designed for concrete washout collection may be used subject to prior approval by the Community Engineer. Follow the manufacturer's suggestions for installation, maintenance and removal procedures.

Sizing of Concrete Washout Pits

Below-grade (3-ft depth)		
# of concrete trucks expected to be washed out on site*	Width (ft)	Length (ft)
2-3	3	3
4-5	4	4
6-7	5	5
8-10	6	6
11-14	7	7

Above-grade (2-ft depth)		
# of concrete trucks expected to be washed out on site*	Width (ft)	Length (ft)
2	3	3
3-4	4	4
5-6	5	5
7-8	6	6
9-11	7	7
12-15	8	8

*For small projects using a maximum of only one truckload of concrete or utilizing on-site mixing, rinsing of equipment may take place on the lot without a pit, provided it can be done a minimum of fifty (50) feet away from any water conveyances.



REV No.	DATE	BY	DESCRIPTION

CITY OF NORTH RIDGEVILLE, OHIO
DEPARTMENT OF ENGINEERING

CONCRETE WASHOUT

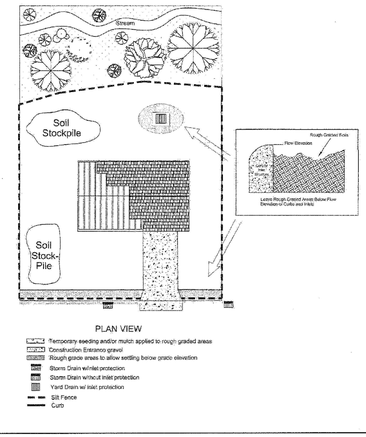
SCALE: NOT TO SCALE
DATE: 10/01/08 | DRWN BY: JAB/TEB | SWP-33

CITY OF NORTH RIDGEVILLE, ENGINEER

Specifications for
Small Construction Site Controls

1. Preexisting vegetation shall be retained on idle portions of the building lot for as long as construction operations allow. Cleaning shall be done so only active working areas are bare.
2. Temporary seed and/or mulch shall be applied to areas, such as stockpiles and rough graded areas, that are bare and not actively being worked. This shall apply to areas that will not be reworked for 21 days or more.
3. Stockpiles created from basement excavation and grading shall be situated away from streets, swales, or other waterways and shall be seeded and/or mulched immediately.
4. Silt fence or other sediment barriers shall control sheet flow runoff from the building lot. These shall not be constructed in channels or areas of concentrated flow. Other sediment controls such as sediment traps and inlet protection shall also be used as needed to control sediment runoff. Sediment control practices shall be inspected weekly after storm events, and maintained in good working condition.
5. Construction vehicle access shall be limited to one route, to the greatest extent practical. The access shall be gravel or crushed rock underlain with geotextile.
6. Mud tracked onto streets or sediment settled around curb inlet protection shall be removed daily or as needed to prevent it from accumulating. It shall be removed by shoveling and scraping and shall NOT be washed off paved surfaces or into storm drains. Sediment removed shall be placed where it will not be subject to erosion or concentrated runoff.

Specifications for
Small Construction Site Controls



INFORMATION OBTAINED FROM THE 2006 EDITION OF THE STATE OF OHIO'S "RAINWATER AND LAND DEVELOPMENT MANUAL".

REV No.	DATE	BY	DESCRIPTION

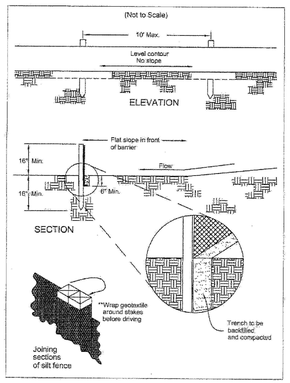
CITY OF NORTH RIDGEVILLE, OHIO
DEPARTMENT OF ENGINEERING

SMALL CONSTRUCTION SITE CONTROLS

SCALE: NOT TO SCALE
DATE: 10/01/08 | DRWN BY: JAB/TEB | SWP-32

CITY OF NORTH RIDGEVILLE, ENGINEER

Specifications for
Silt Fence



Specifications for
Silt Fence

1. Silt fence shall be constructed before upslope land disturbance begins.
2. All silt fence shall be placed as close to the contour as possible so that water will not concentrate at low points in the fence and so that small swales or depressions that may carry small concentrated flows to the silt fence are discarded along its length.
3. Ends of the silt fences shall be brought upslope slightly so that water ponded by the silt fence will be prevented from flowing around the ends.
4. Silt fence shall be placed on the flattest area available.
5. Where possible, vegetation shall be preserved for 5 feet (or as much as possible) upslope from the silt fence. If vegetation is removed, it shall be reestablished within 7 days from the installation of the silt fence.
6. The height of the silt fence shall be a minimum of 16 inches above the original ground surface.
7. The silt fence shall be placed in an excavated or sliced trench cut a minimum of 6 inches deep. The trench shall be made with a trencher, cable laying machine, slicing machine, or other suitable device that will ensure an adequately uniform trench depth.
8. The silt fence shall be placed with the stakes on the downslope side of the geotextile. A minimum of 8 inches of geotextile must be below the ground surface. Excess material shall lay on the bottom of the 6-inch deep trench. The trench shall be backfilled and compacted on both sides of the fabric.
9. Seams between sections of silt fence shall be spliced together only at a support post with a minimum 6-in. overlap prior to driving into the ground, (see detail).
10. Maintenance—Silt fence shall allow runoff to pass only as diffuse flow through the geotextile. If runoff overtops the silt fence, flows under the fabric or around the fence ends, or in any other way allows a concentrated flow discharge, one of the following shall be performed, as appropriate: 1) the layout of the silt fence shall be changed, 2) accumulated sediment shall be removed, or 3) other practices shall be installed.

Sediment deposits shall be routinely removed when the deposit reaches approximately one-half of the height of the silt fence.

Silt fences shall be inspected after each rainfall and at least daily during prolonged rainfall. The location of existing silt fence shall be reviewed daily to ensure its proper location and effectiveness. If damaged, the silt fence shall be repaired immediately.

Criteria for silt fence materials

1. Fence post – The length shall be a minimum of 32 inches. Wood posts will be 2-by-2-in. nominal dimensioned hardwood of sound quality. They shall be free of knots, splits and other visible imperfections, that will weaken the posts. The maximum spacing between posts shall be 10 ft. Posts shall be driven a minimum 16 inches into the ground, where possible. If not possible, the posts shall be adequately secured to prevent overturning of the fence due to sediment/water loading.
2. Silt fence fabric – See chart below.

Table 6.3.2 Minimum criteria for Silt Fence Fabric (ODOT, 2002)

FABRIC PROPERTIES	VALUES	TEST METHOD
Minimum Tensile Strength	120 lbs. (535 N)	ASTM D 4632
Maximum Elongation at 60 lbs	50%	ASTM D 4632
Minimum Puncture Strength	50 lbs (220 N)	ASTM D 4833
Minimum Tear Strength	40 lbs (180 N)	ASTM D 4533
Apparent Opening Size	≤ 0.84 mm	ASTM D 4751
Minimum Permittivity	1X10-2 sec.-1	ASTM D 4491
UV Exposure Strength Retention	70%	ASTM G 4355

INFORMATION OBTAINED FROM THE 2006 EDITION OF THE STATE OF OHIO'S "RAINWATER AND LAND DEVELOPMENT MANUAL".

REV No.	DATE	BY	DESCRIPTION

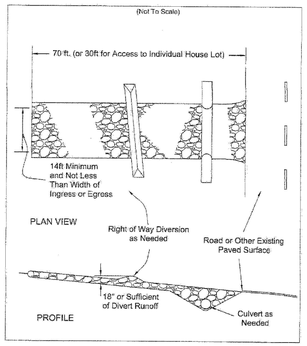
CITY OF NORTH RIDGEVILLE, OHIO
DEPARTMENT OF ENGINEERING

SILT FENCE

SCALE: NOT TO SCALE
DATE: 10/01/08 | DRWN BY: JAB/TEB | SWP-18

CITY OF NORTH RIDGEVILLE, ENGINEER

Specifications for
Construction Entrance



Specifications for
Construction Entrance

1. Stone Size—ODOT # 2 (1.5-2.5 inch) stone shall be used, or recycled concrete equivalent.
2. Length—The Construction entrance shall be as long as required to stabilize high traffic areas but not less than 70 ft. (exception: apply 30 ft. minimum to single residence lots).
3. Thickness - The stone layer shall be at least 6 inches thick for light duty entrances or at least 10 inches for heavy duty use.
4. Width -The entrance shall be at least 14 feet wide, but not less than the full width at points where ingress or egress occurs.
5. Geotextile -A geotextile shall be laid over the entire area prior to placing stone. It shall be composed of strong rot-proof polymeric fibers and meet the following specifications:

Figure 7.4.1

Geotextile Specification for Construction Entrance	
Minimum Tensile Strength	200 lbs.
Minimum Puncture Strength	80 psi
Minimum Tear Strength	50 lbs.
Maximum Burst Strength	320 psi.
Minimum Elongation	20%
Equivalent Opening Size	EOS < 0.6 mm.
Permittivity	1 x 10-3 cm/sec.

6. Timing—The construction entrance shall be installed as soon as is practicable before major grading activities.
7. Culvert -A pipe or culvert shall be constructed under the entrance if needed to prevent surface water from flowing across this entrance or to prevent runoff from being directed out onto paved surfaces.
8. Water Bar -A water bar shall be constructed as part of the construction entrance if needed to prevent surface runoff from flowing the length of the construction entrance and out onto paved surfaces.
9. Maintenance -Top dressing of additional stone shall be applied as conditions demand. Mud spilled, dropped, washed or tracked onto public roads, or any surface where runoff is not checked by sediment controls, shall be removed immediately. Removal shall be accomplished by scraping or sweeping.
10. Construction entrances shall not be relied upon to remove mud from vehicles and prevent off-site tracking. Vehicles that enter and leave the construction-site shall be restricted from muddy areas.
11. Removal—the entrance shall remain in place until the disturbed area is stabilized or replaced with a permanent roadway or entrance.

INFORMATION OBTAINED FROM THE 2006 EDITION OF THE STATE OF OHIO'S "RAINWATER AND LAND DEVELOPMENT MANUAL".

REV No.	DATE	BY	DESCRIPTION

CITY OF NORTH RIDGEVILLE, OHIO
DEPARTMENT OF ENGINEERING

CONSTRUCTION ENTRANCE

SCALE: NOT TO SCALE
DATE: 10/01/08 | DRWN BY: JAB/TEB | SWP-27

CITY OF NORTH RIDGEVILLE, ENGINEER

J:\25\6287A Victory Park Soccer Fields Improvement Plan\DRAWINGS\C8.1-C8.3 SWP3 NOTES AND DETAILS.dwg, Plotted: Apr 25, 2025 - 3:13pm

REVISION	DATE:	BY:	DESCRIPTION:
	04-25-2025	APA	ISSUE TO CITY

DRAWN BY: GEW
CHECKED BY: APA

BRAMHALL
ENGINEERING AND SURVEYING COMPANY
801 MOORE ROAD AVON, OHIO 44011
(440) 934 - 7878 (440) 934 - 7879 FAX

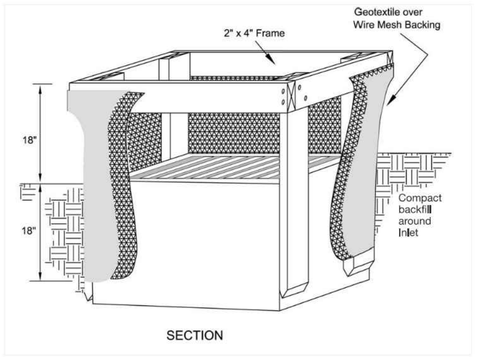
PREPARED FOR:
VICTORY PARK OHIO
7777 VICTORY LANE
NORTH RDGEVILLE, OH 44039

MULTI-SPORT FIELDS AT VICTORY PARK
SWP3 NOTES & DETAILS
CITY OF NORTH RIDGEVILLE, COUNTY OF LORAIN, STATE OF OHIO

SHEET C8.2
JOB NO. 25-6287A

Specifications
for

Geotextile Inlet Protection



SECTION

1. Inlet protection shall be constructed either before upslope land disturbance begins or before the inlet becomes functional.
2. The earth around the inlet shall be excavated completely to a depth at least 18 inches.
3. The wooden frame shall be constructed of 2-inch by 4-inch construction grade lumber. The 2-inch by 4-inch posts shall be driven one (1) ft. into the ground at four corners of the inlet and the top portion of 2-inch by 4-inch frame assembled using the overlap joint shown. The top of the frame shall be at least 6 inches below adjacent roads if ponded water will pose a safety hazard to traffic.
4. Wire mesh shall be of sufficient strength to support fabric with water fully impounded against it. It shall be stretched tightly around the frame and fastened securely to the frame.
5. Geotextile material shall have an equivalent opening size of 20-40 sieve and be resistant to sunlight. It shall be stretched tightly around the frame and fastened securely. It shall extend from the top of the frame to 18 inches below the inlet notch elevation. The geotextile shall overlap across one side of the inlet so the ends of the cloth are not fastened to the same post.
6. Backfill shall be placed around the inlet in compacted 6-inch layers until the earth is even with notch elevation on ends and top elevation on sides.
7. A compacted earth dike or check dam shall be constructed in the ditch line below the inlet if the inlet is not in a depression. The top of the dike shall be at least 6 inches higher than the top of the frame.

Specifications
for

Dust Control

1. Vegetative Cover and/mulch – Apply temporary or permanent seeding and mulch to areas that will remain idle for over 21 days. Saving existing trees and large shrubs will also reduce soil and air movement across disturbed areas. See Temporary Seeding; Permanent Seeding; Mulching Practices; and Tree and Natural Area Protection practices.
2. Watering – Spray site with water until the surface is wet before and during grading and repeat as needed, especially on haul roads and other heavy traffic routes. Watering shall be done at a rate that prevents dust but does not cause soil erosion. Wetting agents shall be utilized according to manufacturers instructions.
3. Spray-On Adhesives – Apply adhesive according to the following table or manufacturers' instructions.

Table 7.5.1 Adhesives for Dust Control

Adhesive	Water Dilution (adhesive: Water)	Nozzle Type	Application Rate Gal./Ac.
Latex Emulsion	12.5:1	Fine	235
Resin in Water Acrylic Emulsion (No-traffic)	4:1	Fine	300
Acrylic Emulsion (Mi-traffic)	7:1	Coarse	450
Acrylic Emulsion (Traffic)	3.5:1	Coarse	350

4. Stone – Graded roadways and other suitable areas will be stabilized using crushed stone or coarse gravel as soon as practicable after reaching as interim or final grade. Crushed fibins or coarse gravel can be used as a permanent cover to provide control of soil emissions.
5. Barriers – Existing windbreak vegetation shall be marked and preserved. Snow fencing or other suitable barrier may be placed perpendicular to prevailing air currents at intervals of about 15 times the barrier height to control air currents and blowing soil.
6. Calcium Chloride – This chemical may be applied by mechanical spreader as loose, dry granules or flakes at a rate that keeps the surface moist but not as high as to cause water pollution or plant damage. Application rates should be strictly in accordance with suppliers' specified rates.
7. Operation and Maintenance - When Temporary Dust Control measures are used, repetitive treatment should be applied as needed to accomplish control.

Street Cleaning - Paved areas that have accumulated sediment from construction should be cleaned daily, or as needed, utilizing a street sweeper or bucket -type enclosed or scraper.

INFORMATION OBTAINED FROM THE 2006 EDITION OF THE STATE OF OHIO'S 'RAINWATER AND LAND DEVELOPMENT MANUAL'

REV NO.	DATE	BY	DESCRIPTION

CITY OF NORTH RIDGEVILLE, OHIO
DEPARTMENT OF ENGINEERING

DUST CONTROL

SCALE: NOT TO SCALE | DATE: 10/01/08 | DRWN BY: JAB/TEB

CITY OF NORTH RIDGEVILLE, ENGINEER

SWP-29

Specifications
for

Topsoiling

Salvaging and Stockpiling

1. Determine the depth and suitability of topsoil at the site. (For help, contact your local SWCD office to obtain a county soil survey report).
2. Prior to stripping topsoil, install appropriate downslope erosion and sedimentation controls such as sediment traps and basins.
3. Remove the soil material no deeper than what the county soil survey describes as "surface soil" (ie. A or Ap horizon).
4. Construct stockpiles in accessible locations that do not interfere with natural drainage. Install appropriate sediment controls to trap sediment such as silt fence immediately adjacent to the stockpile or sediment traps or basins downstream of the stockpile. Stockpile side slopes shall not exceed a ratio of 2:1.
5. If topsoil is stored for more than 14 days, it should be temporary seeded, or covered with a tarp.

Spreading the Topsoil

1. Prior to applying topsoil, the topsoil should be pulverized.
2. To ensure bonding, grade the subsoil and roughen the top 3-4 in. by disking.
3. Do not apply when site is wet, muddy, or frozen, because it makes spreading difficult, causes compaction problems, and inhibits bonding with subsoil.
4. Apply topsoil evenly to a depth of at least 4 inches and compact slightly to improve contact with subsoil.
5. After spreading, grade and stabilize with seeding or appropriate vegetation.

Specifications
for

Mulching

1. Mulch and other appropriate vegetative practices shall be applied to disturbed areas within 7 days of grading if the area is to remain dormant (undisturbed) for more than 14 days or on areas and portions of the site which can be brought to final grade.
2. Mulch shall consist of one of the following:

- Straw - Straw shall be unrotted small grain straw applied at the rate of 2 tons/ac. or 90 lb./1,000 sq. ft. (two to three bales). The straw mulch shall be spread uniformly by hand or mechanically so the soil surface is covered. For uniform distribution of hand-spread mulch, divide area into approximately 1,000 sq.ft. sections and place two 45-lb. bales of straw in each section.
- Hydroseeders - Wood cellulose fiber should be used at 2,000 lb./ac. or 46 lb./1,000 sq. ft.
- Other - Acceptable mulches include mulch mattings and rolled erosion control products applied according to manufacturer's recommendations or wood mulch/chips applied at 10-20 tons/ac.

3. Mulch Anchoring - Mulch shall be anchored immediately to minimize loss by wind or runoff. The following are acceptable methods for anchoring mulch.

- Mechanical - Use a disk, crimper, or similar type tool set straight to punch or anchor the mulch material into the soil. Straw mechanically anchored shall not be finely chopped but be left generally longer than 6 inches.
- Mulch Nettings - Use according to the manufacturer's recommendations, following all placement and anchoring requirements. Use in areas of water concentration and steep slopes to hold mulch in place.
- Synthetic Binders - For straw mulch, synthetic binders such as Acrylic DLR (Agri-Tac), DCA-70, Petroset, Terra Tack or equal may be used at rates recommended by the manufacturer. All applications of Sythetic Binders must be conducted in such a manner where there is no contact with waters of the state.
- Wood Cellulose Fiber - Wood cellulose fiber may be used for anchoring straw. The fiber binder shall be applied at a net dry weight of 750 lb./acre. The wood cellulose fiber shall be mixed with water and the mixture shall contain a maximum of 50 lb./100 gal. of wood cellulose fiber.

CONTROL TIMETABLE

	J	F	M	A	M	J	J	A	S	O	N	D
TEMP. SEEDING			X	X	X	X	X	X	X	X		
PERM. SEEDING				X	X	X	X	X	X			
LANDSCAPING			X	X	X	X			X	X	X	
MULCHING	X	X	X	X	X	X	X	X	X	X	X	X
MAINTENANCE	X	X	X	X	X	X	X	X	X	X	X	X

SWP3 Grading and Stabilization Activities Log

Project Name:

Date Grading Activity Initiated	Description of Grading Activity	Date Grading Activity Ceased (Indicate Temporary or Permanent)	Date When Stabilization Measures are Initiated	Description of Stabilization Measure and Location

SWP3 Amendment Log

Project Name:

Amendment No.	Description of the Amendment	Date of Amendment	Amendment Prepared By

SWP3 Corrective Action Log

Project Name:

Inspection Date	Inspector Name	Description of Corrective Action Needed (From Inspection Report)	Corrective Action Taken	Date Action Taken

SCHEDULE OF MAJOR CONSTRUCTION OPERATIONS

	2025							2026			
	J	J	A	S	O	N	D	J	F	M	A
ROUGH GRADING	X	X	X	X	X						
UTILITY INSTALLATION		X	X	X	X	X	X	X	X		
FINE GRADING						X	X	X	X	X	
PAVEMENT									X	X	X
LANDSCAPING										X	X
TOPSOIL & SEEDING										X	X
TEMP. EROSION CONTROL				X	X	X	X	X	X	X	X
TEMP. EROSION CONTROL MAINTENANCE				X	X	X	X	X	X	X	X

PRIOR TO STARTING CONSTRUCTION THE SWP3 SHALL BE SIGNED BY ALL CONTRACTORS AND SUBCONTRACTORS SHALL BE SUBMITTED TO THE CITY OF NORTH RIDGEVILLE ENGINEERING DEPARTMENT.

THE UNDERSIGNED HAS BEEN INFORMED AND UNDERSTANDS THEIR ROLE AND RESPONSIBILITY IN COMPLYING WITH THIS STORMWATER POLLUTION PREVENTION PLAN:

SIGNATURE	PRINTED NAME	TITLE	COMPANY	DATE

DATE:	BY:	DESCRIPTION:
04-25-2025	APA	ISSUE TO CITY
_	_	_
_	_	_
_	_	_
_	_	_
_	_	_
_	_	_
_	_	_

REVISION

DRAWN BY: GEW

CHECKED BY: APA

BRAMHALL
ENGINEERING AND SURVEYING COMPANY
801 MOORE ROAD AVON, OHIO 44011
(440) 934 - 7878 (440) 934 - 7879 FAX

PREPARED FOR:

VICTORY PARK OHIO
7777 VICTORY LANE
NORTH RDGEVILLE, OH 44039

MULTI-SPORT FIELDS AT VICTORY PARK
SWP3 NOTES & DETAILS
CITY OF NORTH RIDGEVILLE, COUNTY OF LORAIN, STATE OF OHIO

SHEET
C8.3

JOB NO.
25-6287A

J:\25\6287A Victory Park Soccer Fields Improvement Plan\DRAWINGS\C8.1-C8.3 SWP3 NOTES AND DETAILS.dwg, Plotted: Apr 25, 2025, 3:13pm

Planning Commission Application

CITY OF NORTH Ridgeville EST 1810

SEP 13 2024

SUBMITTAL INSTRUCTIONS AND PROCEDURES

Plan reviews will be carried out according to the processes described in the City's Zoning Code.

- Pre-Application. Prior to making application, applicants are recommended to contact the city to discuss their development project. City staff will outline the review process and provide a checklist of required submittals.
- Application Submittal. Following the pre-application meeting, the applicant shall submit this completed application, fee and ten (10) sets of all required exhibits. All submissions shall be made in hard copy to the Building Division. Plans shall be collated, folded and easily legible.
- Staff Review. The applicant shall attend a staff review meeting and may be required to submit additional information and/or revised plans based on staff input.
- Variances. Where zoning variances are sought by the applicant, review by the Board of Zoning and Building Appeals will be necessary prior to consideration by the Planning Commission, requiring a separate application.
- Decision or Referral. Following staff review, complete submittals for Administrative Review projects may be considered for approval. For Council Review projects, complete submittals shall be referred to the next available Planning Commission meeting, which are held the second Tuesday of each month.

PROJECT INFORMATION

Hampton Place Phase 8
Location address

Parcel number(s)

Project type: ☐ Commercial/Industrial/Multi-Fam ☐ Prelim Major Subdivision ☒ Final Major Subdivision ☐ Lot Split

Project elements: ☐ New Construction ☐ Building Addition/Alteration ☐ Site Improvements ☒ Plat

Final Plat
Project description

APPLICANT/AGENT INFORMATION

Valore Properties
Name/Company

23550 Center Ridge #101 Westlake, OHio 44145
Applicant address

440-331-1900
Applicant phone

offfice@valorebuilders.com
Applicant email

PROPERTY OWNER INFORMATION

Valore Properties
Name/Company

23550 Center Ridge Road #101 Westlake, OHio 44145
Property owner address

440-331-1900
Property owner phone

offfice@valorebuilderscom
Property owner email

AUTHORIZATION AND ACKNOWLEDGEMENT

Applicant signature

Property owner signature

I hereby authorize the City of North Ridgeville, including Planning Commission members, to view the premises and consent to their entry onto the property for the purpose of observing site conditions related to review of my application.

OFFICE	PPZ No.	Planning Fee Paid	ACTION
	PPZ2024-0299	$400.00	

Planning Commission Comment Sheet

PROJECT INFORMATION

Hampton Place Subdivision Phase 8 Final Plat	
Proposed project	
	07-00-029-000-203, -515
Location	Parcel number
October 8, 2024	September 26, 2024
Meeting date	Comments due

RECOMMENDATIONS

Type comments here. Attach additional sheets as necessary.

1. Hampton Place Subdivision No.8 has 11 cluster family lots and 44 single family lots with a total of 55 lots.
2. Hampton Place Subdivision No.8 has a density of 1.93 (55 total lots divided by 28.4111 total acres = 1.93).
3. Hampton Place Subdivision No.8 has 20% cluster family lots (11 cluster family lots divided by 55 total lots = 0.20 or 20%).
4. Hampton Place Subdivision No.8 has 24.7% open space (7.0273 open space acres divided by 28.4111 total acres = 0.247 or 24.7%).
5. Hampton Place Subdivision No.8 is the final phase of this subdivision, please provide calculations showing compliance for total density, total cluster family lots percentage, total open space percentage, average single family lot width and average single family lot front yard setback.

SUBMITTED BY

Guy M. Fursdon	Chief Building Official
Administrative officer signature	Title

Planning Commission Bylaws Article V Section 2 – Administrative Review. All applications including those plans and maps submitted to the Commission shall be referred to Administrative Officers. Comments and recommendations by Administrative Officers, if any, shall be forwarded to the Secretary not later than ten (10) calendar days after receipt. Administrative Officers who have not acted within the allotted time shall be deemed to have concurred with plans as submitted.

Staff Meeting Bulletin

Meeting Date:	January 3, 2025
Project:	Hampton Place Subdivision, Phase 8 Final Plat Approval, North Ridgeville, OH 44039
Applicant:	Valore Properties, 23550 Center Ridge Rd, #101, Westlake, OH 44145
Zoning:	R-1 Residential District (Chapter 1282)
In Attendance:	Kim Lieber, Planning & Development Director Christina Eavenson, City Engineer Toni Morgan, Assistant Law Director Guy Fursdon, Chief Building Official Tina Wieber, Deputy Clerk of Council Tony Valore, Valore Builders Jason Fischbach, Valore Builders

Staff Comments

- Christina reviewed the status of construction. Given the weather which would limit progress, she wondered if there was a rush to get the plat approved. She stated that due to the number of outstanding items a significant performance bond would be required. Tony stated that they had a letter of credit and that was what had been done in the past. He stated that they couldn't get performance bonds because they were not the contractor but the owner of the property. He stated that they always had the letter of credit from the bank. Christina explained that they would need some kind of insurance that guaranteed the City of North Ridgeville that they had the money.
- Christina explained there were too many outstanding items that were not resolved timely, whether it was coming back and finishing up the ponds and making sure it was stabilized or cleaning out the ponds or the common areas, putting landscaping in, signage in or lighting and commented that they have had a problem with developers not putting conduit in in a timely fashion. She added that in the developer's agreement, it did say that any outstanding items should be held in a performance bond.
- Jason stated that due to weather conditions they would be maybe six or seven weeks out, but they may be looking at the beginning of March depending on the weather. Tony said he wanted to avoid delays obtaining approval once they were ready to go. Tony stated that he would put a cash bond on the remaining items. Christina stated that that would be fine. Tony commented that they would put in a conduit but if the utility company didn't come there and install the poles, it wouldn't be his fault. Christina stated that they were going to wait for them to make more progress, to get a fewer number of outstanding issues, identify the cost of those items in March or April.
- Engineering had questioned the sewer easement on lots 409 and 410. Christina stated that they questioned whether or not they wanted to make that a North Ridgeville easement. She stated that they really didn't want to get into the practice of going behind people's houses to get to a sanitary sewer. Tony asked if she was talking about the one right behind the two lots on 83. Christina stated that was correct and that she would mark it up on the drawing.
- Kim requested a landscape plan. She explained that they needed to indicate grass and define wetland area to be preserved so that the HOA would know that they couldn't just mow it down. She explained that she wanted a landscape plan that indicated the areas to be preserved and the treatment of any area that was not preserved and how it would be treated or maintained. Christina stated that they were trying to do a better job of ensuring that it met an aesthetic quality that the homeowners could maintain and asked if they could give a little detail on planting and seed mix and if they had different seed on the pond, it would be nice to see that as well. Tony commented that when talking about

landscaping that was fine, but trees wouldn't be in no matter what because they wouldn't go in until the houses were built.

- Tony stated that they would make all the changes they needed to show on the plat and what they were doing in those areas but ultimately, they were turning it over. He stated the Homeowners Associations didn't want the vacant land until the houses were there, but the houses were coming, and they had to take it, so they would just deed it to them and then they didn't need their acceptance. Christina would like to know when they were turning it over because the City gets caught in the middle. She explained that the residents would come to City wanting to know why they hadn't finished the landscaping and ask who was on the hook. She stated that she discussed this with Jason about getting it to the point of acceptance and then the City could give its blessing on the final grade being done, the seeding being done or whatever needed to be done on those areas, and to let her know if it had been transferred, then she would know that they had met the conditions that were required through the developers agreement and it was now the future maintenance of the HOA. Christina discussed the three-year maintenance period that she would look at the pond, whether he owned the underlying area or not, she would make the developer obligated to fix whatever was necessary.

Next Steps

- The applicant will provide updated plans for either the March or April Planning Commission meetings.

Staff Meeting Bulletin

Meeting Date:	September 24, 2024
Project:	Hampton Place Subdivision, Phase 8 Final Plat Approval, North Ridgeville, OH 44039
Applicant:	Valore Properties, 23550 Center Ridge Rd, #101, Westlake, OH 44145
Zoning:	R-1 Residential District
In Attendance:	Kevin Corcoran, Mayor Kim Lieber, Planning & Development Director Christina Eavenson, City Engineer Toni Morgan, Assistant Law Director Guy Fursdon, Chief Building Official John Reese, Fire Chief Mike Uhnak, Assistant Fire Chief Jason Fischbach

Staff Comments

- Guy explained that now that they were at the completion, they had to show compliance with 1282 for density, open space, percentage of clusters, his average lot width for single family and his average setback for single family. Jason stated that per Guy's request, they did get him that information to all the prior phases. Guy stated that he believed they did, so they would just need to update it by adding Phase 8 to the total.
- Christina stated that there were a lot of outstanding items and that if the plat went to Planning Commission, the execution would not happen for a while because they were still in the midst of installation and construction. She asked if that was his intent and if he had a while before he needed to execute it. Jason stated that Kelly Brothers were supposed to start there on Monday, but they did have some delays. Christina stated that even though all of the structures had been ordered, she hadn't seen any of the material submittals from Kelly. Jason stated that that came up a few weeks ago and Jim was going to submit those right away, so he would have to follow up with him on that.
- Chief Reese asked how many homes were in Phase 8. Jason stated that there were 11 cluster lots and 44 single family lots, so 55 total.
- Christina asked if there was still a variance issue and Kim explained that they got the lot size variances for lots 388 and 389.
- Kim asked if there was a requirement that they certify the improvements were made per plan or that they have posted a performance bond for whatever was outstanding at the time of approval.
- Christina commented they would need to eventually, but there were too many outstanding items at this time. She stated that if they got to a point where they were comfortable, and they wanted to, they could put up a performance bond for the outstanding items and they could request that execution of the plan. She stated that she thought they were a ways away from that. Jason agreed.
- Kim stated that that section also stated that the approval of the final plat was also the City's acceptance of any easements and asked if they would have those then. Christina stated that she had not reviewed the easements on the plat yet and she wanted to confirm that it did correspond to the items that they had drafted in the final design. Kim was concerned regarding Planning Commission approving it assuming that they had that information.
- Christina stated that she could look at the easements.
- Kim asked if there was a rush to get the final plat approved. Jason stated he was going to push to get that done as soon as possible with whatever that takes. He stated that it was a big project, but he didn't really have a timeline and commented that it would be based on weather and things like what

they got into and how he performed overall. He stated that originally, they were going to start about eight weeks ago or longer and he was shooting for October or November. He stated that now that they were going into October, he really didn't know but he was hoping that in about eight weeks or so he could have a lot of that done, depending on how many crews he takes in there and how the weather cooperated and how everything went. He stated that they would have to show performance on the project, and he understood that to get to that point, so there were still some variables.

- Christina asked if it would be that much of a hardship if they asked for another 30 days. Jason replied no.
- Kim thought there was benefit to waiting until more of the construction was complete and documents were in order. Jason stated that he agreed and that was fine. Kim mentioned that that way if something were to change in the field they wouldn't have to come back and amend their plan.

Next Steps

- The applicant will provide updated plans for either the November or December Planning Commission meetings.

VALORE PROPERTIES, INC.
23550 CENTER RIDGE ROAD #101
WESTLAKE, OHIO 44145
440-331-1900

April 29, 2025

City of North Ridgeville
7307 Avon Belden Road
North Ridgeville, Ohio 44039

Re: Hampton Place Ph 8 Tree Lawn Trees

This is our confirmation letter regarding the specie of tree(s) Valore Properties will be planting at Hampton Place Ph 8, in the right of way of each lot, after all the homes are built:

SYRINGA RETICULATA "IVORY SILK"

This same specie was planted in prior phase, and we are following the attached "Approved Trees for Planting in Right Of Way" requirements.

Sincerely
Anthony M. Valore

Approved Trees for Planting in Right of Way

ENGINEERING DIVISION

CITY OF NORTH Ridgeville EST 1810

GENERAL REQUIREMENTS

No tree(s) shall be planted in right-of-way areas (tree lawns), closer than 35 feet to any street corner, measured from the point of the nearest intersecting curbs or curb lines. No tree lawn tree(s) shall be planted closer than 10 feet to any fire hydrant. The spacing of tree(s) shall be planted no closer than 30 feet in tree lawns. All the planting distances are subject to the City Arborist's approval.

"Tree lawn" means that portion of the public right of way for road purposes which exists between the paved roadway surface and the sidewalk, or otherwise exists as the unpaved portion of the public right of way for road purposes.

All tree(s) planting shall be done outside of the improved portion of any road or street. Trees shall be planted in such a manner as to not impair visibility for vehicular or pedestrian traffic. The maximum height of trees is 25 feet when overhead lines are present. Any person, property owner or company that does not follow these regulations, will be required at their expense to remove or relocate the tree(s) as required by the City of North Ridgeville. See 1032.03 and 1032.06 for additional requirements.

The following list of trees shall be permitted in tree lawns. Any other species of tree(s) not on the following list shall require the approval of the City of North Ridgeville.

ACCEPTABLE SPECIES

Dogwood
Cornus Kousa 'Kousa'
Cuyahoga Grey

Maple
Acer tataricum ssp. 'Ginnala' aka 'Amur Maple' varieties
'Betzam' aka 'Beethoven'
'Embers'
'Flame'
'Mozart'
'Celebration'
'Armstrong Maple'
Acer tataricum 'Tatarian', var. 'Rubrum'
Acer buergeranum 'Trident', var. 'Street Wise'
Acer campestre 'Hedge Maple' varieties:
'Queen Elizabeth'
'Schichtel's Upright'
'St. Gregory'
Japanese Maple varieties

Gingko
'Potter Pete'
'Fastigiata'
'Elmwood'
'Menhir' (GoGo™)
Fairmount
'Folkert's Select'
'Gokusho-ba'
'Robbie's Twist'
'Chi chi'

Redbud
Cercis Canadensis varieties:
'Eastern Redbud'
'Alba'
'Forest Pansy'
'Northern or Minnesota Strain'
'Whitebud'

Hawthorn
Crataegus-crus-galli var. inermis
'Thornless Cockspur'
'Crusader' is a cultivar of this tree

Japanese Tree Lilac
Syringa reticulata 'Ivory Silk'
Syringa reticulata 'Summer Snow'

Serviceberry
Amelanchier x grandiflora varieties:
'Autumn Brilliance'
'Cole's Select'
'Princess Diana'
'Refzam' aka 'Reflections'
'Robin Hill'

Littleleaf Linden
'Tilia cordata'

London Plane

Zelkova
Serrata
'Fuiri Keyaki'
'Goshki'
'Pulverulenta'
'Variegata'

Chapter 1030.07 CERTAIN SPECIES DECLARED PUBLIC NUISANCES; ABATEMENT.
Any silver maple, honey locust, poplar, basswood, box elder, catalpa or willow upon private property in the City, in such close proximity to any public place in the City as will permit the roots of such tree to penetrate through or under the surface of any public place in the City, is hereby declared to be a public nuisance and may be abated by the City Arborist as provided in Sections 1030.02(e) and 1030.08.

RECEIVED 4.21.2025

April 21, 2025

NOTES

1. A MINIMUM OF 1 TREE SHALL BE INCLUDED ON THE INDIVIDUAL SITE PLAN. THE PROPOSED TREE SHALL BE POSITIONED SO THAT IT WILL BE OUTSIDE OF THE CITY RIGHT-OF-WAY.

2. PER CITY OF NORTH RIDGEVILLE ORDINANCE 1032.09(d)(3) DEVELOPERS SHALL USE A MINIMUM OF THREE DIFFERENT TYPES OF TREES WITHIN THE DEVELOPMENT. THE DEVELOPER SHALL PICK THREE OF THE FOLLOWING VARIETIES:

CRABAPPLE:
- MALUS SUTZARN AKA 'SUGAR TYME'
- MALUS PRAIRIFIRE'
- MALUS PROFESSOR SPRENGER
- MALUS CENTZAM AKA 'CENTURION'
- MALUS SPRING SNOW (NO FRUIT)

DOGWOOD:
- COMUS KOUSA 'KOUSA'
- CUYAHOGA GREY

HAWTHORN:
- CRATAEGUS CMS-GALLI VAR. INERMIS 'THOMLESS COCKSPUR' 'CRUSADER' IS A CULTIVAR OF THIS TREE

JAPANESE TREE LILACI:
- SYRINGA RETICULATA 'IVORY SILK'
- SYRINGA RETICULATA 'SUMMER SNOW'

MAPLE:
- ACER TATARICUM SSP. 'GINNAJA' AKA 'AMUR MAPLE' VARIETIES
- BETZAM AKA 'BEETHOVEN'
- EMBERS
- FLAME
- MOZAZAM AKA 'MOZART'
- CELEBRATION
- ARMSTRONG MAPLE
- ACER TATARICUM 'TATARIAN', VAR. 'RUBRMN'
- ACER BUERGERANUM ' TRIDENT', ›AR. 'STREET WISE'
- ACER CAMPESTIE 'HEDGE MAPLE'

VARIETIES:
- QUEEN ELIZABETH'
- SCHICLITEL' S UPRIGHT' 'ST. GREGORY'

PEAR:
- PYRUS CALLERYANA VARIETIES:
- CLEVELAND SELECT OR 'CHANTICLEER' OR STONCHILL

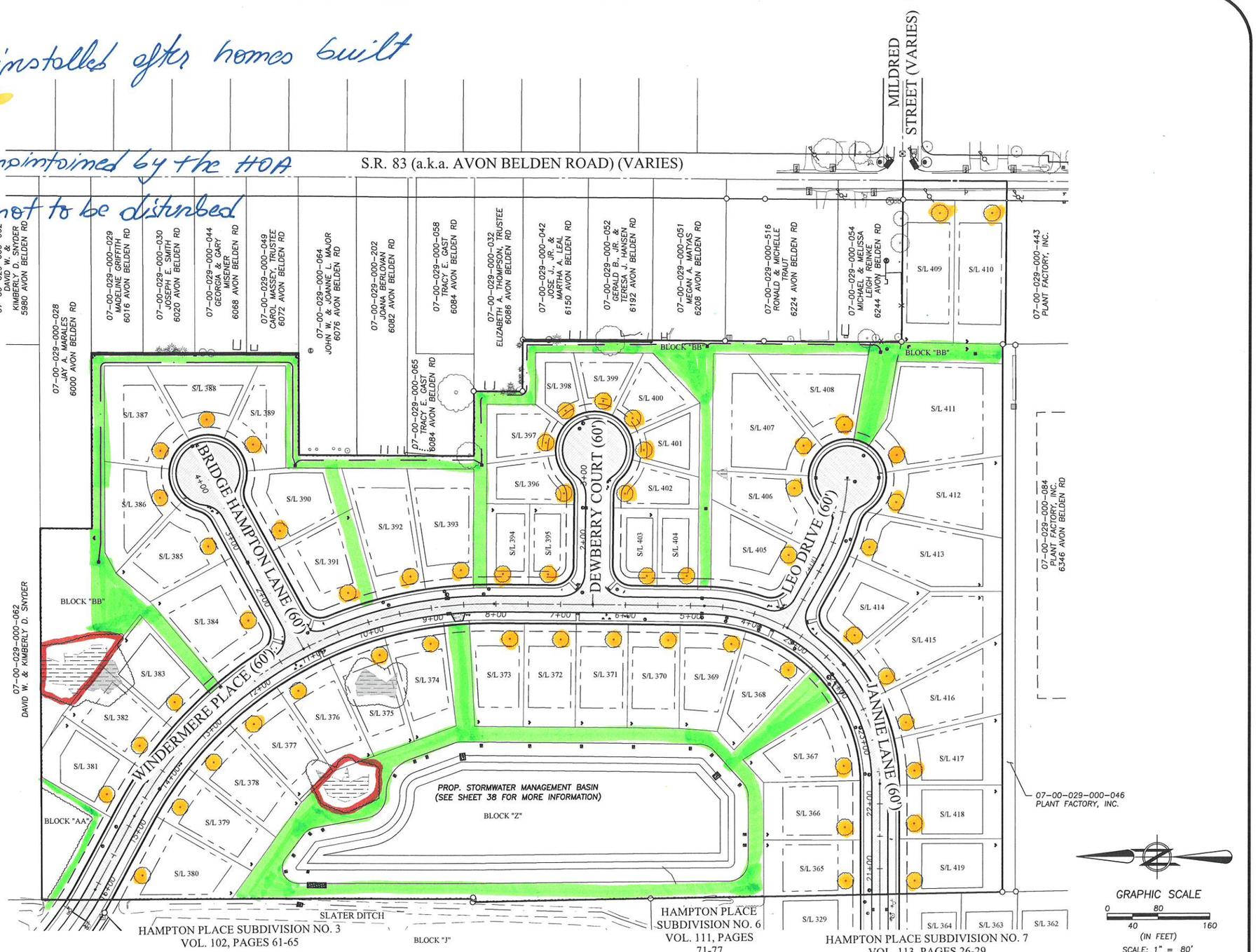
REDBUD:
- CERCIS CANADENSIS VARIETIES:
- EASTERN RCDBUD' 'ALBA'
- FOREST PANSY'
- NORTHERN OR MINNESOTA STRAIN'
- WHITEBUD'

SERVICCBERRY: (MAXIMUM 5 FOOT HEIGHT AT PLANTLNG.) AINELANCLFIER X GRANDIFLORA VARIETIES:
- AUTUMN BRILLIANCE
- COLE'S SELECT'
- PRINCESS DIANA'
- REFZAM' AKA 'REFLECTIONS'
- ROBIN HILL'
- SNOWCLOUD'
- SPIRZANI' AKA 'SPRING GLORY'
- TRAZAM' AKA 'TRADITION'

Trees - installed after homes built

Grass - maintained by the HOA

Wet Land - not to be disturbed



LEGEND OF SYMBOLS

PROPOSED TREE LOCATION
FOR INTENT ONLY
FINAL LOCATION
TO BE DETERMINED
BY CITY.

REVISION: DATE:	BY:	DESCRIPTION:
11/17/2023	CLH	ISSUE TO CITY FOR ENGINEERING REVIEW
12/19/2023	CLH	ISSUE TO OEPA FOR REVIEW
02/27/2024	CLH	REVISED CITY COMMENTS
04/23/2024	CLH	REVISED PER CITY COMMENTS
05/24/2024	CLH	REVISED PER CITY COMMENTS

DRAWN BY: SJM

CHECKED BY: CLH

BRAMHALL
ENGINEERING AND SURVEYING COMPANY
801 MOORE ROAD AVON, OHIO 44011
(440) 934 - 7878 (440) 934 - 7879 FAX

PREPARED FOR:
VALORE PROPERTIES, INC.
23550 CENTER RIDGE ROAD
WESTLAKE, OH 44145

HAMPTON PLACE SUBDIVISION - PHASE 8
TREE PLANTING PLAN
CITY OF NORTH RIDGEVILLE, COUNTY OF LORAIN, STATE OF OHIO

SHEET 52 OF 52

JOB NO. 20-5445-8

J:\20545-8 Hampton Place PH-8\DRAWINGS\Improvement Plans\(52) Tree Planting Plan.dwg, Plotted: May 28, 2024 - 8:38am

HAMPTON PLACE SUBDIVISION NO. 8

SITUATED IN THE CITY OF NORTH RIDGEVILLE, COUNTY OF LORAIN, STATE OF OHIO AND KNOWN AS BEING
PART OF ORIGINAL RIDGEVILLE TOWNSHIP LOT NUMBER 29

OWNER'S CERTIFICATE

SITUATED IN THE CITY OF NORTH RIDGEVILLE, COUNTY OF LORAIN, STATE OF OHIO, AND BEING A PART OF ORIGINAL RIDGEVILLE TOWNSHIP LOT NUMBER 29.

THE UNDERSIGNED VALORE PROPERTIES, INC. HEREBY CERTIFIES THAT THE ATTACHED PLAT REPRESENTS "HAMPTON PLACE SUBDIVISION NUMBER 8" A SUBDIVISION OF LOTS 365 TO 419 AND BLOCKS "Z", "AA", AND "BB", INCLUSIVE, DO HEREBY ACKNOWLEDGE THIS PLAT OF SAME AND DEDICATE TO PUBLIC USE AS SUCH, ALL OR PARTS OF THE ROADS, BOULEVARDS, CUL-DE-SACS, PARKS OR RECREATION AREAS, PLANTING OR RESERVED STRIPS, ETC., SHOWN HEREIN AND NOT HERETOFORE DEDICATED.

THE UNDERSIGNED FURTHER AGREES THAT ANY USE OF IMPROVEMENTS MADE ON THIS LAND SHALL BE IN CONFORMITY WITH ALL EXISTING PLATTING, ZONING, HEALTH OR OTHER LAWFUL RULES OR REGULATIONS INCLUDING THE APPLICABLE OFF-STREET LOADING AND PARKING REQUIREMENTS OF THE CITY OF NORTH RIDGEVILLE FOR THE BENEFIT OF HIMSELF (THEMSELVES) AND ALL OTHER SUBSEQUENT PARTIES TAKING TITLE FROM, UNDER OR THROUGH THE UNDERSIGNED.

THE DIMENSIONS OF THE LOTS AND STREETS ARE SHOWN ON THE PLAT IN FEET AND DECIMAL PARTS THEREOF. EASEMENTS ARE RESERVED WHERE INDICATED ON THE PLAT IN FEET AND DECIMAL PARTS THEREOF. EASEMENTS ARE RESERVED WHERE INDICATED ON THE PLAT FOR PUBLIC UTILITY PURPOSES ABOVE AND BENEATH THE SURFACE OF THE GROUND.

IN WITNESS THEREOF THE UNDERSIGNED HAVE HEREUNTO SET THEIR HANDS THIS _____ DAY OF _____, 20__.

OWNER

_____

WITNESS

_____

_____

NOTARIAL SEAL

STATE OF OHIO }
SS
COUNTY OF LORAIN }

ON THIS _____ DAY OF _____, 20___ BEFORE ME PERSONALLY APPEARED _____, AND ACKNOWLEDGED THE SIGNING OF THIS PLAT TO BE HIS (THEIR) FREE ACT AND DEED FOR THE PURPOSES HEREON MENTIONED.

WITNESS MY HAND AND SEAL THE DAY AND YEAR FIRST ABOVE WRITTEN.

_____

NOTARY PUBLIC IN AND FOR LORAIN COUNTY, OHIO

MY COMMISSION EXPIRES _____

SANITARY SEWER EASEMENT (TO CITY OF NORTH RIDGEVILLE):

EASEMENT FOR ACCESS TO SANITARY SEWER AND SERVICES WITHIN BLOCK "BB" AS SHOWN HEREON THIS PLAT IS GRANTED BY THE UNDERSIGNED OWNER AND DOES HEREBY GRANT UNTO CITY OF NORTH RIDGEVILLE, A PERMANENT RIGHT-OF-WAY AND EASEMENT OF SUCH WIDTHS AND LENGTHS AS DEFINED AND SHOWN ON THIS PLAT, OVER AS SHOWN HEREON TO IMPROVE, OPERATE, MAINTAIN, REPAIR, RECONSTRUCT, AND RELOCATE SUCH IMPROVEMENTS ABOVE AND BELOW GROUND, TO MAINTAIN AND/OR IMPROVE SUCH FACILITIES AS DEEMED NECESSARY FOR MAINTAINING SANITARY SEWER AND SERVICES AS OWNERS MAY DETERMINE UPON, WITHIN AND ACROSS THE EASEMENT PREMISES, SUBJECT TO THE TERMS INCLUDED HEREIN. SAID EASEMENT RIGHTS SHALL INCLUDE THE RIGHT WITHOUT LIABILITY THEREFORE, TO REMOVE TREES AND LANDSCAPING INCLUDING LAWNS, WITHIN SAID EASEMENT PREMISES, WHICH MAY INTERFERE WITH THE INSTALLATION, MAINTENANCE, REPAIR OR OPERATION OF THE SANITARY SEWER AND SERVICES, THE RIGHT TO IMPROVE, OPERATE, MAINTAIN, REPAIR, RECONSTRUCT, AND RELOCATE SUCH IMPROVEMENTS ABOVE AND BELOW GROUND WITHIN THE ABOVE DESCRIBED EASEMENT PREMISES WITH THE RIGHT OF ACCESS AND EGRESS TO ANY OF THE WITHIN SHOWN EASEMENTS FOR EXERCISING ANY OF THE PURPOSES OF THIS EASEMENT GRANT. NO PERMANENT IMPROVEMENTS SHALL BE INSTALLED WITHIN SAID EASEMENTS.

IN WITNESS THEREOF, THE UNDERSIGNED HAVE HEREUNTO SET THEIR HANDS

THIS _____ DAY OF _____, 202__.

BY: _____

WITNESS

_____

NOTARY PUBLIC:

STATE OF OHIO
SS
COUNTY OF

BEFORE ME, A NOTARY PUBLIC, IN AND FOR SAID COUNTY AND STATE, DID PERSONALLY APPEAR THE ABOVE SIGNED _____ WHO ACKNOWLEDGED THE SIGNING OF THIS PLAT TO BE THEIR OWN FREE ACT THEREIN EXPRESSED. IN WITNESS THEREOF I HAVE HEREUNTO SET MY HAND AND OFFICIAL SEAL.
THIS _____ DAY OF _____, 202__.

NOTARY PUBLIC

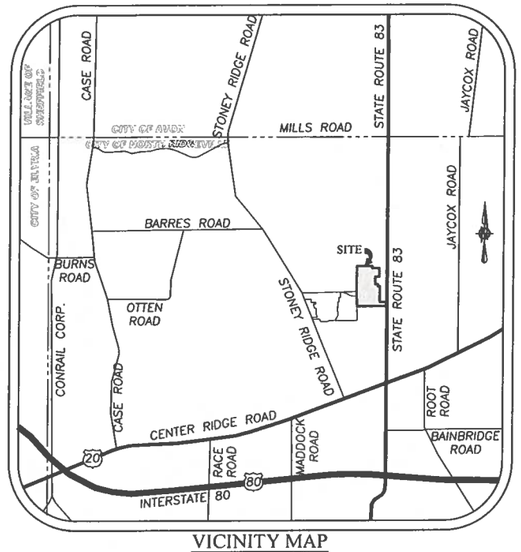
MY COMMISSION EXPIRES: _____

LEGEND

- ○ IRON PIN/PIPE FOUND
- ● 5/8" REBAR SET WITH CAP STAMPED "BRAMHALL ENG. & SURV."
- ⊡ MONUMENT BOX FOUND
- ▣ MONUMENT BOX SET WITH 5/8" REBAR WITH CAP STAMPED "BRAMHALL ENG. & SURV."
- ◉ 5/8" IRON REBAR WITH CAP STAMPED "BRAMHALL 8073" FOUND

ACREAGE SUMMARY

17.3120 ACRES IN SUBLOTS 365-419
3.9616 ACRES IN PROPOSED RIGHT-OF-WAY
0.1102 ACRES IN EXISTING S.R. 83 RIGHT-OF-WAY
7.0273 ACRES IN BLOCKS "Z", "AA", AND "BB"
28.4111 AC. TOTAL



VICINITY MAP
NOT TO SCALE

UTILITY EASEMENTS

WE, THE UNDERSIGNED OWNERS OF THE PLATTED LAND, DO HEREBY GRANT UNTO COLUMBIA GAS OF OHIO, FIRST ENERGY, (TELEPHONE), AND (COMMUNICATIONS), THEIR SUCCESSORS AND ASSIGNS (HEREIN AFTER REFERRED TO AS THE GRANTEE) A PERMANENT RIGHT-OF-WAY AND EASEMENT AS SHOWN HEREON TO CONSTRUCT, PLACE, OPERATE, MAINTAIN, REPAIR, RECONSTRUCT, RELOCATE, RENEW, SUPPLEMENT, OR REMOVE SUCH UNDERGROUND ELECTRIC AND COMMUNICATIONS CABLES, DUCTS, CONDUITS, PIPES, GAS PIPE LINES, SURFACE OR BELOW GROUND MOUNTED TRANSFORMERS AND PEDESTALS, CONCRETE PADS AND OTHER FACILITIES AS ARE DEEMED NECESSARY OR CONVENIENT BY THE GRANTEES FOR DISTRIBUTING, TRANSPORTING, AND TRANSMITTING ELECTRICITY, GAS AND COMMUNICATION SIGNALS FOR PUBLIC AND PRIVATE USE AT SUCH LOCATION AS THE GRANTEES MAY DETERMINE UPON, WITHIN AND ACROSS SAID EASEMENT PREMISES. SAID EASEMENT RIGHTS SHALL INCLUDE THE RIGHT, WITHOUT LIABILITY THEREFORE TO REMOVE TREES AND LANDSCAPING, INCLUDING LAWNS WITHIN AND WITHOUT SAID EASEMENT PREMISES WHICH MAY INTERFERE WITH THE INSTALLATION, MAINTENANCE, REPAIR, OPERATION OF SAID ELECTRIC, GAS, AND COMMUNICATIONS FACILITIES THE RIGHT TO INSTALL, REPAIR, AUGMENT AND MAINTAIN SERVICE CABLES AND PIPE LINES OUTSIDE THE ABOVE DESCRIBED EASEMENT PREMISES OR THE RIGHT OF ACCESS, INGRESS AND EGRESS TO AND FROM ANY OF THE WITHIN DESCRIBED PREMISES FOR EXERCISING ANY OF THE PURPOSES OF THE RIGHT-OF-WAY AND EASEMENT GRANT.

GRANTOR:

_____ DATE

MANAGING MEMBER
VALORE PROPERTIES, INC
23550 CENTER RIDGE RD.
WESTLAKE, OHIO 44145

SURVEYOR'S CERTIFICATE

THIS IS TO CERTIFY THAT AT THE REQUEST OF THE OWNERS I HAVE SURVEYED AND PLATTED "HAMPTON PLACE SUBDIVISION NUMBER 8" AS SHOWN HEREON AND CONTAINING 28.4111 ACRES OF LAND IN ORIGINAL RIDGEVILLE TOWNSHIP LOT NO. 29, LORAIN COUNTY, OHIO. AT ALL POINTS THUSLY INDICATED ○ IRON PIN MONUMENTS WERE FOUND AND AT ALL POINTS THUSLY INDICATED ● IRON PIN MONUMENTS WERE SET. DISTANCES ARE SHOWN IN FEET AND DECIMAL PARTS THEREOF. BEARINGS SHOWN ARE ASSUMED AND USED TO DESCRIBE ANGLES ONLY. THE PLAN REPRESENTS A SURVEY WHICH A TRAVERSE OF THE EXTERIOR BOUNDARIES OF THE TRACT AND EACH BLOCK COMPUTED FROM FIELD MEASUREMENTS OF GROUND CLOSED WITHIN A LIMIT OF ERROR OF ONE (1) FOOT TO TEN THOUSAND (10,000) FEET OF THE PERIMETER BEFORE BALANCING THE SURVEY. ALL OF WHICH I CERTIFY TO BE CORRECT.

STATE OF OHIO
AMY M. KELLY
S-8469
REGISTERED
PROFESSIONAL LAND SURVEYOR

8/28/2024
AMY M. KELLY, P.S. DATE
REGISTERED OHIO SURVEYOR NO. 8469

PLANNING COMMISSION

SEP 13 2024

WE HEREBY APPROVE AND ACCEPT THIS PLAT ACCORDING TO THE SUBDIVISION REGULATIONS FOR THE CITY OF NORTH RIDGEVILLE, OHIO THIS _____ DAY OF _____ 20___.

_____

SECRETARY (OR RESPONSIBLE OFFICIAL) CITY PLANNING COMMISSION - GUY M. FURSDON

MAYOR

APPROVED THIS _____ DAY OF _____ 20___.

_____

MAYOR - KEVIN CORCORAN

CITY ENGINEER

APPROVED THIS _____ DAY OF _____ 20___.

_____

CITY ENGINEER - CHRISTINA EAVENSON, P.E.

HOA RESPONSIBILITIES

WE, THE OWNERS OF THE WITHIN PLATTED LAND, DO HEREBY GRANT UNTO THE HAMPTON PLACE SUBDIVISION HOMEOWNERS ASSOCIATION RESPONSIBILITY FOR "DRAINAGE EASEMENTS" AS SHOWN HEREON, OUTSIDE OF THE PUBLIC RIGHT OF WAY, INCLUDING, BUT NOT LIMITED TO, GRADING, DRAINAGE, DRAINAGE PIPING AND DRAINAGE STRUCTURES."

30' SANITARY SEWER EASEMENT (BENEFIT SUBLOTS 409 AND 410):

30' EASEMENT FOR ACCESS TO SANITARY SERVICES WITHIN BLOCK "BB" FOR THE BENEFIT OF SUBLOTS 409 AND 410 AS SHOWN HEREON THIS PLAT IS GRANTED BY THE UNDERSIGNED OWNER AND DOES HEREBY GRANT UNTO VALORE PROPERTIES, INC., A PERMANENT RIGHT-OF-WAY AND EASEMENT OF SUCH WIDTHS AND LENGTHS AS DEFINED AND SHOWN ON THIS PLAT, OVER AS SHOWN HEREON TO IMPROVE, OPERATE, MAINTAIN, REPAIR, RECONSTRUCT, AND RELOCATE SUCH IMPROVEMENTS ABOVE AND BELOW GROUND, TO MAINTAIN AND/OR IMPROVE SUCH FACILITIES AS DEEMED NECESSARY FOR MAINTAINING SANITARY SERVICES AS OWNERS MAY DETERMINE UPON, WITHIN AND ACROSS THE EASEMENT PREMISES, SUBJECT TO THE TERMS INCLUDED HEREIN. SAID EASEMENT RIGHTS SHALL INCLUDE THE RIGHT WITHOUT LIABILITY THEREFORE, TO REMOVE TREES AND LANDSCAPING INCLUDING LAWNS, WITHIN SAID EASEMENT PREMISES, WHICH MAY INTERFERE WITH THE INSTALLATION, MAINTENANCE, REPAIR OR OPERATION OF THE SANITARY SERVICES, THE RIGHT TO IMPROVE, OPERATE, MAINTAIN, REPAIR, RECONSTRUCT, AND RELOCATE SUCH IMPROVEMENTS ABOVE AND BELOW GROUND WITHIN THE ABOVE DESCRIBED EASEMENT PREMISES WITH THE RIGHT OF ACCESS AND EGRESS TO ANY OF THE WITHIN SHOWN EASEMENTS FOR EXERCISING ANY OF THE PURPOSES OF THIS EASEMENT GRANT. NO PERMANENT IMPROVEMENTS SHALL BE INSTALLED WITHIN SAID EASEMENTS.

IN WITNESS THEREOF, THE UNDERSIGNED HAVE HEREUNTO SET THEIR HANDS

THIS _____ DAY OF _____, 202__.

BY: _____

WITNESS

_____

NOTARY PUBLIC:

STATE OF OHIO
SS
COUNTY OF

BEFORE ME, A NOTARY PUBLIC, IN AND FOR SAID COUNTY AND STATE, DID PERSONALLY APPEAR THE ABOVE SIGNED _____ WHO ACKNOWLEDGED THE SIGNING OF THIS PLAT TO BE THEIR OWN FREE ACT THEREIN EXPRESSED. IN WITNESS THEREOF I HAVE HEREUNTO SET MY HAND AND OFFICIAL SEAL.
THIS _____ DAY OF _____, 202__.

NOTARY PUBLIC

MY COMMISSION EXPIRES: _____

REVISION	DATE	BY	DESCRIPTION
	11-22-2023	CLH	ISSUE TO CITY FOR REVIEW
	02-23-2024	CLH	REVISED PER CITY COMMENTS
	04-23-2024	CLH	REVISED PER CITY COMMENTS
	05-24-2024	CLH	REVISED PER CITY COMMENTS
	08-28-2024	CLH	REVISED PER VARIANCE GRANTED

DRAWN BY: JLT
CHECKED BY: AMK

BRAMHALL
ENGINEERING AND SURVEYING COMPANY
801 MOORE ROAD AVON, OHIO 44011
(440) 934 - 7878 (440) 934 - 7879 FAX

PREPARED FOR:
VALORE PROPERTIES, INC.
23550 CENTER RIDGE ROAD
WESTLAKE, OH 44145

HAMPTON PLACE SUBDIVISION NO. 8
PLAT
CITY OF NORTH RIDGEVILLE, COUNTY OF LORAIN, STATE OF OHIO

SHEET 1 OF 6
JOB NO. 20-5445-8

J:\2025\45-8 Hampton Place PHASE\DRAWINGS\Plat\(01) Title Sheet.dwg, Plotted: Aug 28, 2024 - 7:43am

SEP 13 2024

MONUMENTATION TABLE			
P1	1/2" IRON PIN IN CONCRETE FOUND & USED	P12	5/8" IRON PIN W/CAP STAMPED "REITZ ENG" FOUND & USED FOR R/W 0.34' (S)
P2	3/4" IRON PIPE FOUND 0.15' (E)	P13	1" IRON PIPE FOUND 0.14' (N) 0.19' (E)
P3	1" IRON PIPE (BENT) FOUND & USED	P14	1" IRON PIPE FOUND & USED FOR N-S LINE 0.11' (S)
P4	5/8" IRON PIN W/CAP STAMPED "BRAMHALL 8073" FOUND AND USED	P15	1/2" IRON PIN FOUND 0.15' (N) 0.33' (E)
P5	RAIL ROAD SPIKE FOUND	P16	1/2" IRON PIN FOUND 0.60' (N) 0.32' (E)
P6	5/8" IRON PIN W/CAP STAMPED "BRAMHALL 8073" FOUND AND USED	P17	1/2" IRON PIN (BENT) FOUND & USED FOR N-S LINE 0.45' (N)
P7	1" IRON PIPE IN MONUMENT BOX FOUND	P18	2" IRON PIPE FOUND & USED FOR E-W LINE 6.93' (E)
P8	1" IRON PIPE FOUND (BENT) 0.25' (N) 0.62' (E)	P19	1" IRON PIPE FOUND 1.00' (S) 4.85' (E)
P9	5/8" IRON PIN W/CAP STAMPED "REITZ ENG" FOUND & USED FOR E-W LINE 0.68' (E)	P20	1" IRON PIPE FOUND & USED
P10	1" IRON PIPE FOUND 0.48' (E)		
P11	1" IRON PIPE FOUND 0.16' (E)		

OWNERSHIP TABLE	
A	07-00-029-000-036 DAVID W. SNYDER & KIMBERLY D. SNYDER 5980 AVON BELDEN ROAD INST. #2019-0732395
B	07-00-029-000-029 MADELINE GRIFFITH 6016 AVON BELDEN ROAD INST. #2023-0936631
C	07-00-029-000-030 JOSEPH E. SMITH 6020 AVON BELDEN ROAD INST. #2010-0338894
D	07-00-029-000-044 GARY MISENER & GEORGIA MISENER 6068 AVON BELDEN ROAD INST. #2013-0471469
E	07-00-029-000-049 CAROL MASSEY, TRUSTEE 6072 AVON BELDEN ROAD INST. #1999-0610747
F	07-00-029-000-065 TRACY E. GAST INST. #2014-0509741
G	07-00-029-000-032 ELIZABETH A. THOMPSON, TRUSTEE 6086 AVON BELDEN ROAD INST. #2021-0827604
H	07-00-029-000-042 JOSE R. LEAL JR. & MARTHA A. LEAL 6150 AVON BELDEN ROAD INST. #2022-0879247
I	07-00-029-000-052 GERALD B. HANSEN JR. & TERESA J. HANSEN 6192 AVON BELDEN ROAD INST. #1997-0498081
J	07-00-029-000-051 MEGAN A. MATYAS 6208 AVON BELDEN ROAD INST. #2021-0854012
K	07-00-029-000-054 MICHAEL REINKE & MELISSA LEIGH REINKE 6244 AVON BELDEN ROAD INST. #2020-0787166

TABLE OF LINES		
LINE #	LENGTH	BEARING
L1	80.00' (R&U)	N 00°17'47" E
L2	100.00'	S 89°45'25" E
L3	75.00' (R&U)	S 00°17'47" W
L4	80.00' (R&U)	S 89°45'25" E
L5	146.67' (R&U)	S 26°54'10" E

CURVE TABLE						
CURVE #	ARC LENGTH	RADIUS	CHORD LENGTH	CHORD DIRECTION	TANGENT	DELTA
CA	135.93'	500.00'	135.51'	S 51°54'45" E	68.39'	15°34'34"
CB	150.28'	500.00'	149.71'	S 35°30'17" E	75.71'	17°13'13"

GRAPHIC SCALE
0 50 100 200
(IN FEET)
SCALE: 1" = 100'

HAMPTON PLACE SUBDIVISION NO. 02 P.V. 97, PGS. 95-97 (SUBLOTS 35-73)

HAMPTON PLACE SUBDIVISION NO. 01 P.V. 93, PGS. 63-65 (SUBLOTS 1-34)

HAMPTON PLACE SUBDIVISION NO. 03 P.V. 102, PGS. 61-65 (SUBLOTS 74-113)

HAMPTON PLACE SUBDIVISION NO. 05 (REFILE) P.V. 111, PGS. 48-53 (SUBLOTS 192-259)

HAMPTON PLACE SUBDIVISION NO. 06 P.V. 111, PGS. 71-77 (SUBLOTS 260-322)

HAMPTON PLACE SUBDIVISION NO. 07 P.V. 111, PGS. 71-77 (SUBLOTS 323-364)

ATLANTIC AVENUE (60')
WATERSCAPE COURT (60')
WINDERMERE PLACE (60')
BRIDGE HAMPTON LANE (60')
DEWBERRY COURT (60')
LEO DRIVE (60')
JANNIE LANE (60')
STONEY RIDGE ROAD (60')
LILA DRIVE (60')
HAVENCREST COURT (60')
DORQW DRIVE (60')
CHATFIELD COURT (60')
AVON BELDEN ROAD (S.R. 83) (VARIES)

BLOCK "E" BLOCK "I" BLOCK "AA" BLOCK "BB" BLOCK "J" BLOCK "Z" BLOCK "W"

07-00-029-000-067 JESSICA BARNES & NICHOLAS BARNES INST. #2024-0011378
07-00-029-000-062 DAVID W. SNYDER & KIMBERLY D. SNYDER INST. #2019-0732395
07-00-029-000-028 JAY A. MORALES 6000 AVON BELDEN ROAD INST. #2017-0633158
07-00-029-000-064 JOHN W. MAJOR & JOANNE L. MAJOR 6076 AVON BELDEN ROAD INST. #2005-0073137
07-00-029-000-202 JOANA BERLOVAN 6082 AVON BELDEN ROAD INST. #2017-0656766
07-00-029-000-058 TRACY E. GAST 6084 AVON BELDEN ROAD INST. #2014-0509741
07-00-029-000-516 RONALD TRAUT & MICHELLE TRAUT 6225 AVON BELDEN ROAD INST. #2022-0883268
07-00-029-000-203 VALORE PROPERTIES, INC. INST. #2016-0573410
07-00-029-000-515 VALORE PROPERTIES, INC. INST. #2022-0883265
07-00-029-000-084 PLANT FACTORY, INC. 6346 AVON BELDEN RD INST. #1994-0314602
07-00-029-000-046 PLANT FACTORY, INC. INST. #2009-0316594
07-00-029-000-443 PLANT FACTORY, INC INST. #2021-0851351

N 89°57'19" E 574.71'(R&U)
N 89°57'19" E 272.25'(R&U)
S 89°45'25" E 4.87'(R&U)
S 89°57'19" W 157.74'(R&U)
N 00°01'38" W 667.72'(SV) 667.76'(R)
S 00°17'53" W 271.23'(SV) 271.32'(R)
N 00°17'47" E 319.94'(SV) 319.92'(R)
S 00°28'41" W 584.19'(R&U)
N 00°01'21" W 818.56'(R&U)
N 89°59'33" W 847.00'(R&U)
N 00°27'31" W 4.29'(R&U)
N 89°31'19" W 252.04'(R&U)
S 89°31'19" E 250.00'(R&U)
N 00°28'41" E 160.00'(R&U)

REVISION			DATE
DATE	BY	DESCRIPTION	
11-22-2023	CLH	ISSUE TO CITY FOR REVIEW	
02-23-2024	CLH	REVISED PER CITY COMMENTS	
04-23-2024	CLH	REVISED PER CITY COMMENTS	
05-24-2024	CLH	REVISED PER CITY COMMENTS	
08-28-2024	CLH	REVISED PER VARIANCE GRANTED	

DRAWN BY: JLT
CHECKED BY: AMK

BRAMHALL
ENGINEERING AND SURVEYING COMPANY
801 MOORE ROAD AVON, OHIO 44011
(440) 934 - 7878 (440) 934 - 7879 FAX

PREPARED FOR:
VALORE PROPERTIES, INC.
23550 CENTER RIDGE ROAD
WESTLAKE, OH 44145

HAMPTON PLACE SUBDIVISION NO. 8 OVERALL PLAT

CITY OF NORTH RIDGEVILLE, COUNTY OF LORAIN, STATE OF OHIO

SHEET 2 OF 6
JOB NO. 20-5445-8

J:\2054458\4 Hampton Place PH-8\DRAWINGS\Plat\02) Overall Plat.dwg, Plotter: Aug 28, 2024 - 7:44am

SEP 13 2024

07-00-029-000-062
DAVID W. SNYDER & KIMBERLY D. SNYDER
INST. #2019-0732395

07-00-029-000-028
JAY A. MORALES
6000 AVON BELDEN ROAD
INST. #2017-0633158

07-00-029-000-029
MADELINE GRIFFITH
6016 AVON BELDEN ROAD
INST. #2023-0936631

07-00-029-000-030
JOSEPH E. SMITH
6020 AVON BELDEN ROAD
INST. #2010-0338894

07-00-029-000-044
GARY MISENER &
GEORGIA MISENER
6068 AVON BELDEN ROAD
INST. #2013-0471469

07-00-029-000-049
CAROL MASSEY, TRUSTEE
6072 AVON BELDEN ROAD
INST. #1999-0610747

07-00-029-000-064
JOHN W. MAJOR &
JOANNE L. MAJOR
6076 AVON BELDEN ROAD
INST. #2005-0073137

07-00-029-000-202
JOANA BERLOVAN
6082 AVON BELDEN ROAD
INST. #2017-0656766

07-00-029-000-203
VALORE PROPERTIES, INC.
INST. #2016-0573410

HAMPTON PLACE
SUBDIVISION NO. 03
P.V. 102, PGS. 61-65
(SUBLOTS 74-113)

BLOCK "J"

BLOCK "AA"
12,809.34 S.F.
0.2941 AC.

BLOCK "BB"
96,707.56 S.F.
2.2201 AC.

BLOCK "Z"
196,591.62 S.F.
4.5131 AC.

SUBLOT 375
13,292.05 S.F.
0.3051 AC.

SUBLOT 376
12,974.35 S.F.
0.2979 AC.

SUBLOT 377
12,914.22 S.F.
0.2965 AC.

SUBLOT 378
13,504.19 S.F.
0.3100 AC.

SUBLOT 379
13,128.34 S.F.
0.3014 AC.

SUBLOT 380
16,450.91 S.F.
0.3777 AC.

SUBLOT 381
13,341.46 S.F.
0.3063 AC.

SUBLOT 382
12,873.87 S.F.
0.2955 AC.

SUBLOT 383
13,468.05 S.F.
0.3092 AC.

SUBLOT 384
19,326.20 S.F.
0.4437 AC.

SUBLOT 385
14,165.55 S.F.
0.3252 AC.

SUBLOT 386
13,166.58 S.F.
0.3023 AC.

SUBLOT 387
15,715.84 S.F.
0.3608 AC.

SUBLOT 388
12,480.01 S.F.
0.2865 AC.
(SEE NOTE 3)

SUBLOT 389
11,128.37 S.F.
0.2554 AC.
(SEE NOTE 3)

SUBLOT 390
14,983.96 S.F.
0.3440 AC.

SUBLOT 391
16,586.17 S.F.
0.3808 AC.

SUBLOT 392
17,393.75 S.F.
0.3993 AC.

SUBLOT 374

WINDERMERE PLACE (60')

BRIDGE HAMPTON LANE (60')

N 89°57'19" E 574.71'(R&U)
344.09'
N 00°17'47" E 80.00'(R&U)
N 89°57'19" E 272.25'(R&U)
N 89°57'19" E 289.76'
141.60'
148.16'
S 61°58'04" W 35.72'
S 40°11'53" W 58.97'
S 47°05'34" E 150.00'
N 05°37'21" E 101.03'
N 60°52'04" E 131.34'
S 65°09'13" E 123.21'
N 00°17'47" E 319.94'(SV) 319.92'(R)
S 00°17'47" W 279.94'
170.13'
66.84'
S 89°57'19" W 157.74'
S 89°57'19" W 157.74'(R&U)
N 00°01'38" W 667.72'(SV) 667.76'(R)
374.04'
185.64'
S 00°17'53" W 271.23'(SV) 271.52'(R)
291.10'
101.36'
20.00'
86.20'
64.34'
42.97'
60.36'
N 00°56'56" W
S 00°17'53" W
BLOCK "BB"
N 50°10'46" E 163.89'
S 28°14'58" E 143.41'
S 61°45'02" W 181.83'
119.14'
N 61°45'02" E 309.29'
S 61°45'02" W 183.44'
99.31'
N 28°14'58" W 140.98'
N 74°44'25" E 210.65'
146.31'
N 81°23'00" E 189.13'
82.69'
N 52°04'20" W 185.97'
87.24'
98.73'
S 40°17'58" W 125.64'
S 59°08'08" E 84.53'
N 34°31'20" E 146.56'
N 41°28'52" E 148.78'
N 48°25'48" E 158.89'
N 61°35'12" W 128.81'
109.84'
18.97'
53.59'
83.61'
N 54°08'22" W 184.64'
67.44'
N 44°19'37" W 68.29'
N 56°26'14" E 156.07'
68.23'
N 20°14'44" W 203.73'
68.45'
N 65°21'11" E 166.61'
N 74°14'57" E 166.55'
N 39°54'26" E 170.06'
171.94'
N 36°30'29" E
N 47°29'29" E 163.57'
35' FRONT SETBACK (TYP.)
30' REAR SETBACK (TYP.)
7.5' SIDE SETBACK (TYP.)
5' WETLAND SETBACK
5' OFFSET
12' UTILITY EASEMENT
21.6' REAR SETBACK (SEE NOTE 4)
5' SIDE SETBACK
30' REAR SETBACK
C1 C2 C5 C6 C7 C21 C22 C23 C24 C25 C26 C27 C28 C29 C30 C31 C32 C33 C57 C58 C59 C60 C61 C62 C63 C64 C65 C66 C67 C68 C69 C70 C71 C72 C76 C77 C78 C79 C80 C81 C82 C83 C84 C85 C86 C88 C89

GRAPHIC SCALE
0 30
15 60
(IN FEET)
SCALE: 1" = 30'

NOTES:

1. SEE SHEETS 5 AND 6 FOR CURVE TABLE INFORMATION.
2. SEE SHEET 2 FOR MONUMENTATION TABLE INFORMATION.
3. VARIANCE FOR SUBLOTS 388 & 389 ACREAGE WAS GRANTED ON AUGUST 22, 2024 BY CITY OF NORTH RIDGEVILLE PER PPZ NO. PPZ2024-0278.
4. VARIANCE FOR REAR SETBACK ON SUBLOT 388 WAS GRANTED ON AUGUST 2024 BY CITY OF NORTH RIDGEVILLE PER PPZ NO. PPZ2024-0278.

FOR CONTINUATION SEE SHEET 4

REVISION	DATE	BY	DESCRIPTION
	11-22-2023	CLH	ISSUE TO CITY FOR REVIEW
	02-23-2024	CLH	REVISED PER CITY COMMENTS
	04-23-2024	CLH	REVISED PER CITY COMMENTS
	05-24-2024	CLH	REVISED PER CITY COMMENTS
	08-28-2024	CLH	REVISED PER VARIANCE GRANTED

DRAWN BY: JLT
CHECKED BY: AMK

BRAMHALL
ENGINEERING AND SURVEYING COMPANY
801 MOORE ROAD AVON, OHIO 44011
(440) 934 - 7878 (440) 934 - 7879 FAX

PREPARED FOR:
VALORE PROPERTIES, INC.
23550 CENTER RIDGE ROAD
WESTLAKE, OH 44145

HAMPTON PLACE SUBDIVISION NO. 8 PLAT

CITY OF NORTH RIDGEVILLE, COUNTY OF LORAIN, STATE OF OHIO

SHEET 3 OF 6
JOB NO. 20-5445-8

J:\20\5445-8 Hampton Place PH-8\DRAWINGS\Plat\03-061 Enlarged Plat.dwg, Plotted: Aug 28, 2024 - 1:56pm

FOR CONTINUATION SEE SHEET 3

SEP 13 2024

07-00-029-000-202
JOANA BERLOVAN
6082 AVON BELDEN ROAD
INST. #2017-0656766

07-00-029-000-203
VALORE PROPERTIES, INC.
INST. #2016-0573410

07-00-029-000-065
TRACY E. GAST
INST. #2014-0509741

07-00-029-000-058
TRACY E. GAST
6084 AVON BELDEN ROAD
INST. #2014-0509741

07-00-029-000-032
ELIZABETH A. THOMPSON, TRUSTEE
6086 AVON BELDEN ROAD
INST. #2021-0827604

07-00-029-000-042
JOSE R. LEAL JR. & MARTHA A. LEAL
6150 AVON BELDEN ROAD
INST. #2022-0879247

07-00-029-000-052
GERALD B. HANSEN JR. & MARGARET J. HANSEN
6192 AVON BELDEN ROAD
INST. #1997-0498081

07-00-029-000-051
MEGAN A. MATYAS
6208 AVON BELDEN ROAD
INST. #2021-0854012

07-00-029-000-515
VALORE PROPERTIES, INC.
INST. #2022-0883265

HAMPTON PLACE
SUBDIVISION NO. 03
P.V. 102, PGS. 61-65
(SUBLOTS 74-113)

HAMPTON PLACE
SUBDIVISION NO. 06
P.V. 111, PGS. 71-77
(SUBLOTS 260-322)

BLOCK "J"

BLOCK "Z"
196,591.62 S.F.
4.5131 AC.

BLOCK "W"

BLOCK "BB"
96,707.56 S.F.
2.2201 AC.

WINDERMERE PLACE (60')

DEWBERRY COURT (60')

SUBLOT 368

SUBLOT 369
13,044.94 S.F.
0.2995 AC.

SUBLOT 370
12,800.00 S.F.
0.2938 AC.

SUBLOT 371
12,800.00 S.F.
0.2938 AC.

SUBLOT 372
12,800.00 S.F.
0.2938 AC.

SUBLOT 373
12,812.93 S.F.
0.2941 AC.

SUBLOT 374
13,104.68 S.F.
0.3008 AC.

SUBLOT 375

SUBLOT 392
17,393.75 S.F.
0.3993 AC.

SUBLOT 393
16,273.74 S.F.
0.3736 AC.

SUBLOT 394
8,267.14 S.F.
0.1898 AC.

SUBLOT 395
8,390.78 S.F.
0.1926 AC.

SUBLOT 396
8,677.54 S.F.
0.1992 AC.

SUBLOT 397
8,879.43 S.F.
0.2038 AC.

SUBLOT 398
6,731.43 S.F.
0.1545 AC.

SUBLOT 399
6,903.20 S.F.
0.1585 AC.

SUBLOT 400
8,701.59 S.F.
0.1998 AC.

SUBLOT 401
8,048.12 S.F.
0.1848 AC.

SUBLOT 402
7,784.69 S.F.
0.1787 AC.

SUBLOT 403
8,047.56 S.F.
0.1847 AC.

SUBLOT 404
7,500.00 S.F.
0.1722 AC.

SUBLOT 405

SUBLOT 406

SUBLOT 407

N 00°01'38" W 667.72'(SV) 667.76'(R)
374.04'
N 01°01'21" W 818.56'(R&U)
449.19'
S 89°45'25" E 4.87'(R&U)
N 87°04'08" E 159.12'
N 20°14'44" W 203.73'
66.45'
69.05'
N 74°14'57" E 166.55'
N 83°15'50" E 155.71'
S 89°16'50" E 160.00'
S 00°43'10" W 315.07'
N 00°43'10" E 324.08'
N 04°28'48" E 59.15'
N 47°47'27" E 36.67'
N 73°56'11" W 160.88'
N 89°16'50" W 239.28'
N 89°16'50" W 110.00'
N 89°16'50" W 90.00'
N 89°16'50" W 120.00'
N 89°16'50" W 284.36'
S 89°16'50" E 360.63'
S 89°40'20" W 179.50'
S 89°45'25" E 100.00'
S 89°49'05" E 125.11'
S 89°35'11" E 61.97'
S 89°45'25" E 91.89'
S 89°45'25" E 79.94'
S 00°17'53" W 291.10'
S 00°17'53" W 271.23'(SV) 271.52'(R)
S 00°17'47" W 75.00'(R&U)
S 00°43'10" W 92.28'
N 06°57'02" W 107.22'
S 00°43'10" W 135.39'
S 00°43'10" W 68.67'
N 37°23'58" E 55.28'
N 77°55'56" E 94.12'
S 00°28'41" W 180.55'
S 00°28'41" W 584.18'(R&U)
293.49'
N 63°09'48" W 107.90'
S 24°15'52" E 117.80'
N 46°51'36" E 105.03'
S 14°38'45" W 106.05'
N 00°43'10" W 131.17'
S 00°43'10" W 111.80'
S 00°43'10" W 171.80'
N 00°43'10" E 152.28'
N 00°43'10" W 324.08'
S 00°43'10" W 324.08'

C1 C2 C5 C6 C8 C17 C18 C19 C20 C21 C22 C23 C24 C38 C56 C57 C58 C59 C60 C61 C62 C63 C64 C65 C66 C73 C74 C75 C76

P13 P14 P15 P16 P17 P18 P19 P20

35' FRONT SETBACK (TYP.)
7.5' SIDE SETBACK (TYP.)
30' REAR SETBACK (TYP.)
15' SIDE SETBACK
15' REAR SETBACK (TYP.)
21' FRONT SETBACK (TYP.)
12' UTILITY EASEMENT
20.00'
80.00'(R&U) S 89°45'25" E

GRAPHIC SCALE
0 15 30 60
(IN FEET)
SCALE: 1" = 30'

NOTES:
1. SEE SHEETS 5 AND 6 FOR CURVE TABLE INFORMATION.
2. SEE SHEET 2 FOR MONUMENTATION TABLE INFORMATION.
3. SUBLOTS 394-404 HAVE A FRONT SETBACK OF 21 FEET. REMAINING SUBLOTS HAVE A FRONT SETBACK OF 35 FEET.

FOR CONTINUATION SEE SHEET 5

REVISION	DATE	BY	DESCRIPTION
	11-22-2023	CLH	ISSUE TO CITY FOR REVIEW
	02-23-2024	CLH	REVISED PER CITY COMMENTS
	04-23-2024	CLH	REVISED PER CITY COMMENTS
	05-24-2024	CLH	REVISED PER CITY COMMENTS
	08-28-2024	CLH	REVISED PER VARIANCE GRANTED

DRAWN BY: JLT
CHECKED BY: AMK

BRAMHALL
ENGINEERING AND SURVEYING COMPANY
801 MOORE ROAD AVON, OHIO 44011
(440) 934 - 7878 (440) 934 - 7879 FAX

PREPARED FOR:
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23550 CENTER RIDGE ROAD
WESTLAKE, OH 44145

HAMPTON PLACE SUBDIVISION NO. 8 PLAT

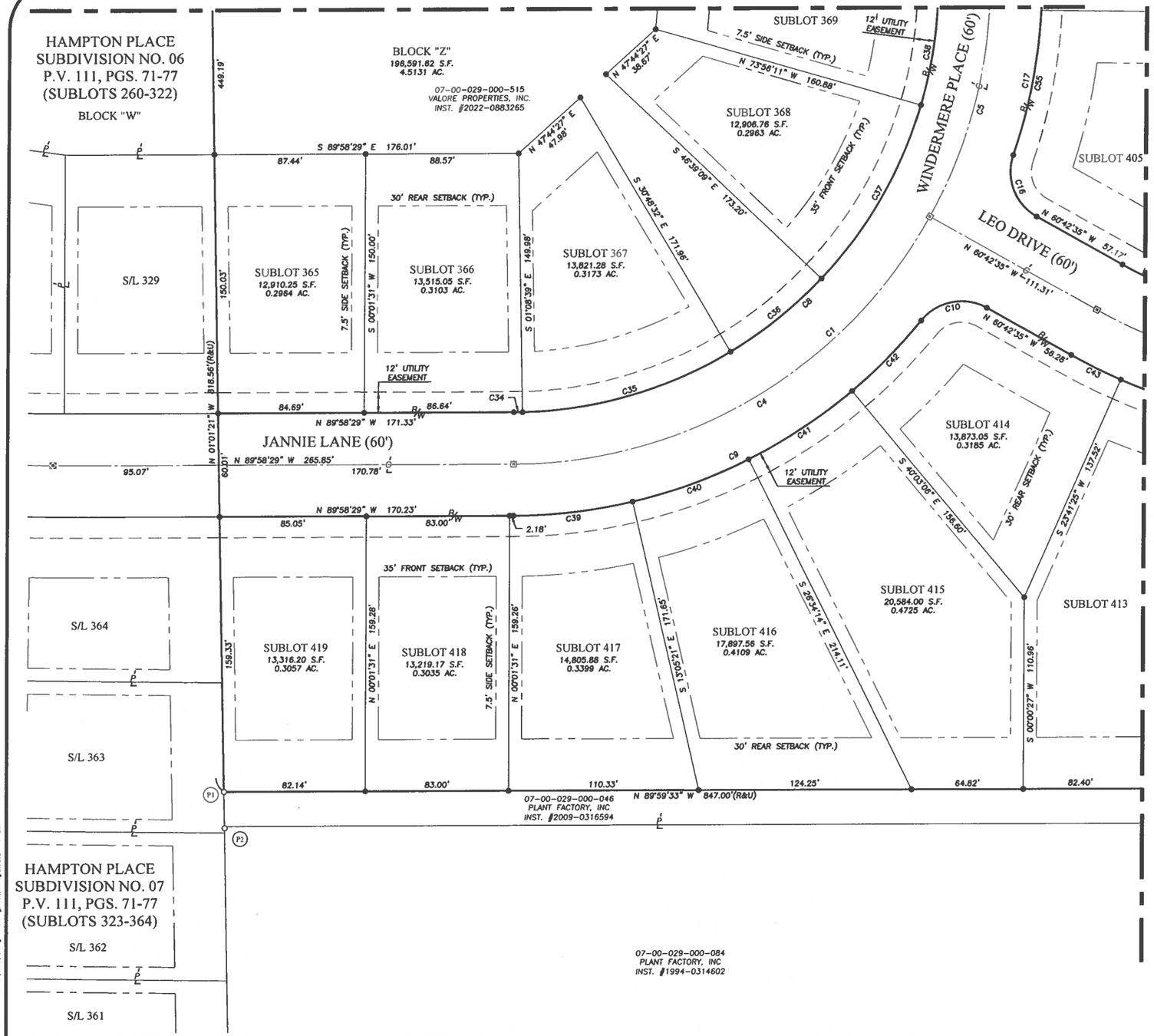
CITY OF NORTH RIDGEVILLE, COUNTY OF LORAIN, STATE OF OHIO

SHEET 4 OF 6

JOB NO. 20-5445-8

J:\2054458 Hampton Place PH-8\DRAWINGS\Plat\03-05) Enlarged Plat.dwg, Plotted: Aug 28, 2024 - 7:44am

FOR CONTINUATION SEE SHEET 4



CURVE TABLE						
CURVE #	ARC LENGTH	RADIUS	CHORD LENGTH	CHORD DIRECTION	TANGENT	DELTA
C1	428.64'	275.00'	386.55'	N 45°22'20" E	271.69'	89°18'21"
C2	679.65'	625.00'	646.66'	N 30°28'01" W	377.81'	62°18'22"
C3	141.88'	300.00'	140.56'	N 74°15'29" W	72.29'	27°05'49"
C4	293.95'	275.00'	280.15'	S 59°24'11" W	162.78'	61°14'39"
C5	134.69'	275.00'	133.34'	S 14°45'01" W	68.72'	28°03'42"
C6	308.85'	625.00'	303.77'	N 13°20'43" W	156.58'	28°07'46"
C7	372.80'	625.00'	367.31'	N 44°29'54" W	192.14'	34°10'36"
C8	381.88'	245.00'	344.38'	N 45°22'20" E	242.05'	89°18'21"
C9	270.64'	305.00'	261.85'	N 64°36'15" E	144.96'	50°50'30"
C10	41.94'	30.00'	38.61'	N 79°14'13" E	25.22'	80°06'25"
C11	86.85'	330.00'	86.60'	N 68°14'57" W	43.68'	15°04'44"
C12	25.11'	35.00'	24.58'	N 55°13'57" W	13.13'	41°06'44"
C13	285.80'	60.00'	82.66'	S 08°51'53" W	57.02'	272°55'05"
C14	33.46'	35.00'	32.20'	S 79°47'46" W	18.13'	54°46'50"
C15	57.04'	270.00'	56.93'	S 66°45'42" E	28.63'	12°06'14"
C16	41.50'	30.00'	38.27'	S 21°04'52" E	24.84'	79°15'26"
C17	94.90'	305.00'	94.52'	S 09°38'00" W	47.84'	17°49'42"
C18	47.12'	30.00'	42.43'	S 45°43'10" W	30.00'	90°00'01"
C19	28.60'	35.00'	27.82'	N 65°52'03" W	15.16'	46°49'35"
C20	286.57'	60.00'	82.11'	S 00°43'10" W	56.29'	273°39'10"
C21	28.60'	35.00'	27.82'	N 67°18'22" E	15.16'	46°49'35"
C22	47.12'	30.00'	42.43'	S 44°16'50" E	30.00'	89°59'59"
C23	647.03'	595.00'	615.62'	N 30°26'01" W	359.68'	62°18'22"
C24	264.93'	655.00'	263.13'	S 10°52'04" E	134.30'	23°10'28"
C25	44.09'	30.00'	40.23'	S 19°38'52" W	27.11'	84°12'20"
C26	28.60'	35.00'	27.82'	S 85°09'50" W	15.16'	46°49'34"
C27	286.57'	60.00'	82.11'	S 28°14'58" E	56.29'	273°39'10"
C28	28.60'	35.00'	27.82'	N 38°20'14" E	15.16'	46°49'35"
C29	44.90'	30.00'	40.82'	S 75°22'40" E	27.85'	85°44'36"
C30	332.45'	655.00'	328.89'	S 47°02'47" E	169.89'	29°04'50"
C31	16.46'	500.00'	16.46'	S 60°38'37" E	8.23'	01°53'10"
C32	34.88'	470.00'	34.87'	S 59°27'38" E	17.45'	04°15'08"
C33	1.65'	530.00'	1.65'	N 61°29'51" W	0.83'	00°10'43"
C34	5.00'	245.00'	5.00'	N 89°26'26" E	2.50'	01°10'09"
C35	126.85'	245.00'	125.44'	N 74°01'25" E	64.88'	29°39'53"
C36	67.75'	245.00'	67.53'	N 51°16'10" E	34.09'	15°50'38"
C37	116.67'	245.00'	115.57'	N 29°42'20" E	59.48'	27°17'01"
C38	65.61'	245.00'	65.42'	N 08°23'30" E	33.00'	15°20'40"
C39	69.81'	305.00'	69.66'	N 83°28'05" E	35.06'	13°06'51"
C40	71.76'	305.00'	71.60'	N 70°10'13" E	36.05'	13°28'53"
C41	71.76'	305.00'	71.60'	N 56°41'20" E	36.05'	13°28'53"
C42	57.30'	305.00'	57.22'	N 44°33'57" E	28.74'	10°45'53"
C43	32.25'	330.00'	32.24'	S 63°30'35" E	16.14'	05°36'00"

SEE SHEET 6 FOR ADDITIONAL CURVE TABLE INFORMATION.

SEP 13 202

NOTES:

1. SEE SHEET 2 FOR MONUMENTATION TABLE INFORMATION.
2. SEE SHEET 6 FOR ADDITIONAL CURVE TABLE INFORMATION.

GRAPHIC SCALE
0 30
15 60
(IN FEET)
SCALE: 1" = 30'

REVISION	DATE	BY	DESCRIPTION
	11-22-2023	CLH	ISSUE TO CITY FOR REVIEW
	02-23-2024	CLH	REVISED PER CITY COMMENTS
	04-23-2024	CLH	REVISED PER CITY COMMENTS
	05-24-2024	CLH	REVISED PER CITY COMMENTS
	08-28-2024	CLH	REVISED PER VARIANCE GRANTED

DRAWN BY: JLT
CHECKED BY: AMK

BRAMHALL
ENGINEERING AND SURVEYING COMPANY
801 MOORE ROAD AVON, OHIO 44011
(440) 934 - 7878 (440) 934 - 7879 FAX

PREPARED FOR:
VALORE PROPERTIES, INC.
23550 CENTER RIDGE ROAD
WESTLAKE, OH 44145

HAMPTON PLACE SUBDIVISION NO. 8 PLAT

CITY OF NORTH RIDGEVILLE, COUNTY OF LORAIN, STATE OF OHIO

SHEET 5 OF 6
JOB NO. 20-5445-8

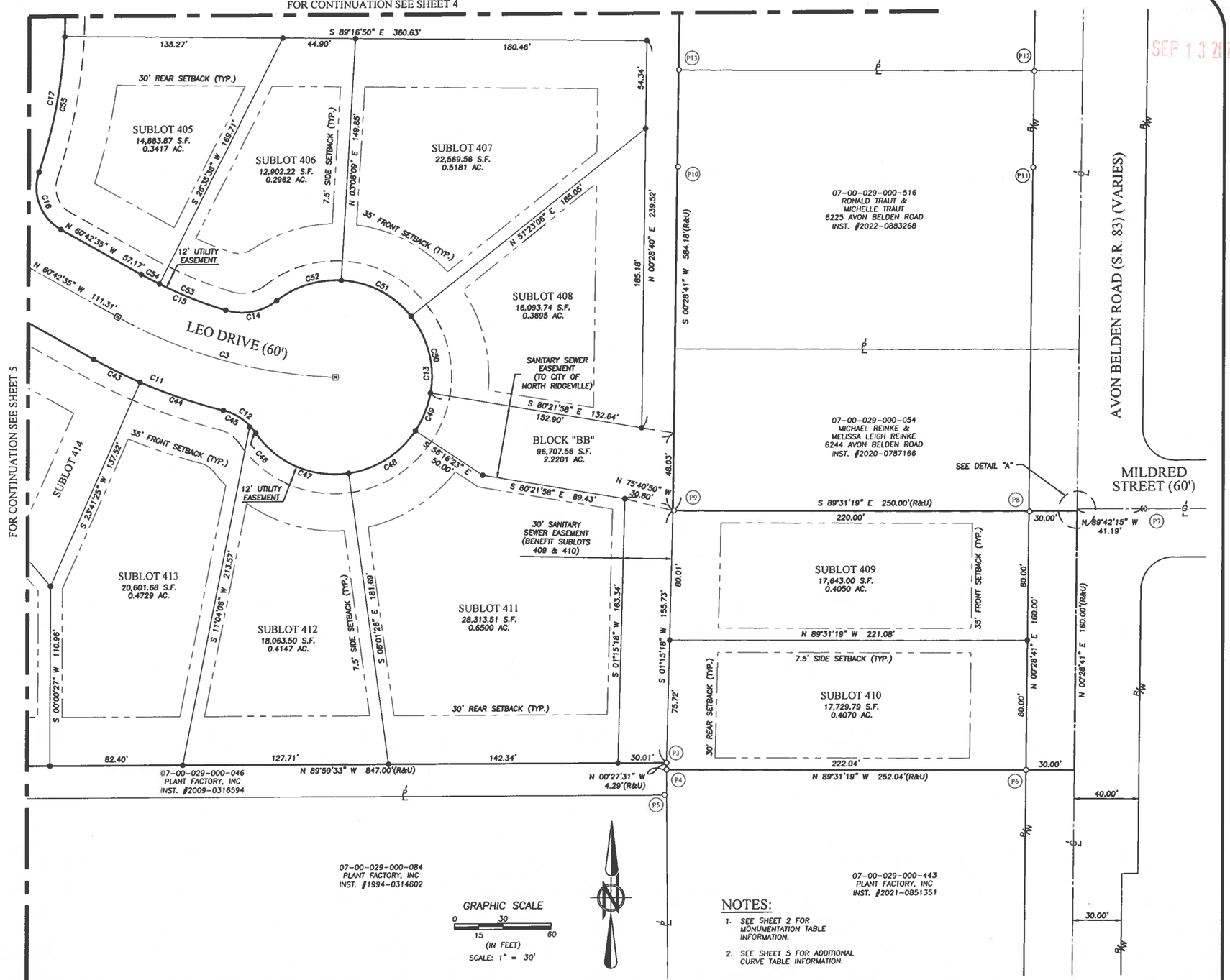
J:\2024\5445-8 Hampton Place PH-8\DRAWINGS\Plat\03-08\ Enlarged Plat.dwg, Plotted: Aug 29, 2024 - 7:44am

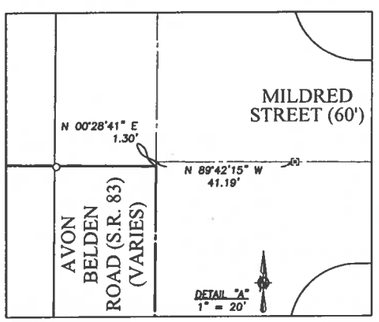
CURVE TABLE						
CURVE #	ARC LENGTH	RADIUS	CHORD LENGTH	CHORD DIRECTION	TANGENT	DELTA
C44	54.59'	330.00'	54.53'	S 71°02'57" E	27.36'	09°28'44"
C45	19.38'	35.00'	19.14'	S 59°55'23" E	9.95'	31°43'53"
C46	5.73'	35.00'	5.72'	S 39°22'01" E	2.87'	09°22'51"
C47	66.34'	60.00'	63.01'	S 66°21'01" E	37.02'	63°20'51"
C48	50.53'	60.00'	49.05'	N 57°51'05" E	26.87'	48°14'57"
C49	25.23'	60.00'	25.04'	N 21°40'50" E	12.80'	24°05'35"
C50	50.53'	60.00'	49.05'	N 14°29'26" W	26.87'	48°14'57"
C51	50.53'	60.00'	49.05'	N 62°44'23" W	26.87'	48°14'57"
C52	42.65'	60.00'	41.76'	S 72°48'15" W	22.27'	40°43'48"
C53	44.33'	270.00'	44.28'	N 68°08'35" W	22.22'	09°24'27"
C54	12.71'	270.00'	12.71'	N 62°03'28" W	6.35'	02°41'47"
C55	85.53'	305.00'	85.25'	N 10°30'49" E	43.05'	16°04'04"
C56	9.37'	305.00'	9.37'	N 01°35'59" E	4.69'	01°45'38"
C57	34.45'	60.00'	33.98'	S 58°54'15" E	17.72'	32°54'00"
C58	40.74'	60.00'	39.96'	N 85°11'37" E	21.19'	38°54'16"
C59	40.74'	60.00'	39.96'	N 46°17'20" E	21.19'	38°54'16"
C60	40.74'	60.00'	39.96'	N 07°23'04" E	21.19'	38°54'16"
C61	40.90'	60.00'	40.11'	N 31°35'39" W	21.28'	39°03'09"
C62	47.99'	60.00'	46.72'	N 74°02'08" W	25.36'	45°49'48"
C63	41.00'	60.00'	40.21'	S 63°28'16" W	21.34'	39°09'24"
C64	37.91'	595.00'	37.90'	N 01°06'21" W	18.96'	03°39'01"
C65	39.51'	595.00'	39.51'	N 04°50'01" W	19.76'	03°48'18"
C66	93.62'	595.00'	93.52'	N 11°14'36" W	46.91'	09°00'53"
C67	92.38'	595.00'	92.29'	N 20°11'56" W	46.28'	08°53'46"
C68	92.59'	595.00'	92.50'	N 29°06'18" W	46.39'	08°54'57"
C69	92.90'	595.00'	92.80'	N 38°02'09" W	46.54'	08°56'44"
C70	93.29'	595.00'	93.20'	N 47°00'01" W	46.74'	08°59'00"
C71	89.32'	595.00'	89.23'	N 55°47'33" W	44.74'	08°36'03"
C72	15.51'	595.00'	15.51'	N 60°50'23" W	7.76'	01°29'38"
C73	11.94'	655.00'	11.94'	N 00°11'49" E	5.97'	01°02'41"
C74	20.25'	655.00'	20.25'	N 01°12'40" W	10.13'	01°46'17"
C75	74.54'	655.00'	74.50'	N 05°21'24" W	37.31'	06°31'12"
C76	75.94'	655.00'	75.90'	N 11°56'18" W	38.01'	06°38'35"
C77	82.26'	655.00'	82.20'	N 18°51'27" W	41.18'	07°11'44"
C78	23.59'	60.00'	23.44'	S 82°41'10" E	11.95'	22°31'33"
C79	64.09'	60.00'	61.09'	N 55°26'55" E	35.49'	61°12'16"
C80	56.53'	60.00'	54.46'	N 02°08'34" W	30.56'	53°58'43"
C81	56.53'	60.00'	54.46'	N 56°07'17" W	30.56'	53°58'43"
C82	56.53'	60.00'	54.46'	S 69°53'54" W	30.56'	53°58'55"
C83	29.30'	60.00'	29.01'	S 28°54'56" W	14.95'	27°59'00"
C84	83.62'	655.00'	83.56'	N 36°09'48" W	41.86'	07°18'51"
C85	20.00'	655.00'	20.00'	N 40°41'43" W	10.00'	01°44'58"
C86	79.50'	655.00'	79.45'	N 45°02'50" W	39.80'	06°57'16"
C87	79.49'	655.00'	79.44'	N 52°00'04" W	39.79'	06°57'12"
C88	69.84'	655.00'	69.80'	N 58°31'56" W	34.95'	06°06'32"

SEE SHEET 5 FOR ADDITIONAL CURVE TABLE INFORMATION.

FOR CONTINUATION SEE SHEET 4

FOR CONTINUATION SEE SHEET 5





NOTES:

1. SEE SHEET 2 FOR MONUMENTATION TABLE INFORMATION.
2. SEE SHEET 5 FOR ADDITIONAL CURVE TABLE INFORMATION.

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HAMPTON PLACE SUBDIVISION NO. 8 PLAT

CITY OF NORTH RIDGEVILLE, COUNTY OF LORAIN, STATE OF OHIO

SHEET 6 OF 6

JOB NO. 20-5445-8

J:\20544-5 Hampton Place PH-8\DRAWINGS\Plat\C0-06 Enlarged Plat.dwg, Plotted: Aug 28, 2024 - 7:44am

SEP 13 2024

Hampton Place Subdivision Phase 8 Sublot Breakdown

Prepared By: Bramhall Engineering and Surveying Co. by: SJM Date: 9/18/2024

Single Family Sublots Breakdown

Sublot Number	Front Yard Setback (Feet)	Side Yard Setback (Feet)	Rear Yard Setback (Feet)	Lot Frontage at Front Yard Setback (Feet)	Lot Acreage (Square Foot)
365	35	7.5	30	85.33	12,910.25
366	35	7.5	30	90.92	13,515.05
367	35	7.5	30	108.73	13,821.28
368	35	7.5	30	100.00	12,906.76
369	35	7.5	30	93.00	13,044.51
370	35	7.5	30	80.00	12,800.00
371	35	7.5	30	80.00	12,800.00
372	35	7.5	30	80.00	12,800.00
373	35	7.5	30	82.99	12,812.93
374	35	7.5	30	88.11	13,104.68
375	35	7.5	30	86.95	13,292.05
376	35	7.5	30	87.14	12,974.35
377	35	7.5	30	87.43	12,914.22
378	35	7.5	30	87.80	13,504.19
379	35	7.5	30	84.06	13,128.34
380	35	7.5	30	126.10	16,450.91
381	35	7.5	30	91.38	13,341.46
382	35	7.5	30	83.74	12,873.87
383	35	7.5	30	83.75	13,468.05
384	35	7.5	30	118.50	19,326.20
385	35	7.5	30	109.09	14,165.55
386	35	7.5	30	89.51	13,166.58
387	35	7.5	30	89.50	15,715.84
388	35	7.5	21.6 *	89.50	12,480.01 **
389	35	7.5	30	101.48	11,128.37 **
390	35	7.5	30	121.48	14,983.96
391	35	7.5	30	117.26	16,586.17
392	35	7.5	30	80.00	17,393.75
393	35	7.5	30	80.00	16,273.74
405	35	7.5	30	99.91	14,883.87
406	35	7.5	30	105.00	12,902.22
407	35	7.5	30	80.00	22,569.56
408	35	7.5	30	80.00	16,093.74
409	35	7.5	30	80.00	17,643.00
410	35	7.5	30	80.00	17,729.79
411	35	7.5	30	80.00	28,313.51
412	35	7.5	30	80.00	18,063.50
413	35	7.5	30	85.00	20,601.68
414	35	7.5	30	95.00	13,873.05
415	35	7.5	30	80.00	20,584.00
416	35	7.5	30	80.00	17,897.56
417	35	7.5	30	80.00	14,805.88
418	35	7.5	30	83.00	13,219.17
419	35	7.5	30	84.41	13,316.20
Sublot Averages	**35**			**90.37**	

Note:

* Variance Granted for Rear Setback for Sublot 388 Granted on August 22, 2024 by City of North Ridgeville Per PPZ No. PPZ2024-0278

** Variance Granted for Sublots 388 & 389 Acreage was Granted on August 22, 2024 by City of North Ridgeville per PPZ No. PPZ2024-0278

Cluster Sublots Breakdown

Sublot Number	Front Yard Setback (Feet)	Side Yard Setback (Feet)	Rear Yard Setback (Feet)	Lot Frontage at Front Yard Setback (Feet)	Lot Acreage (Square Foot)
394	21	7.5/15	15	65.75	8,267.14
395	21	7.5	15	67.29	8,390.78
396	21	7.5	25	81.80	8,677.54
397	21	7.5	25	64.26	8,879.43
398	21	7.5	25	55.74	6,731.43
399	21	7.5	25	55.00	6,903.20
400	21	7.5	15	55.00	8,701.59
401	21	7.5	15	55.00	8,048.12
402	21	7.5	15	77.95	7,784.69
403	21	7.5	15	67.29	8,047.56
404	21	7.5/15	15	62.50	7,500.00
Total					87,931.48

Blocks Breakdown

Block	Lot Acreage (Square Foot)	Lot Acreage (Acres)
Z	196,591.62	4.5131
AA	12,809.34	0.2941
BB	96,707.56	2.2201
Total	306,108.52	7.0273

Hampton Place Subdivision Phase 8 Breakdown	
Hampton Place Subdivision Phase 8 Total Acreage	28.4111
Cluster Sublots Total Acreage	2.0186
Cluster Sublots Percentage within Phase 8	**7.1**
Block Total Acreage	7.0273
Block Percentage within Phase 8	**24.7**

RECEIVED 10.7.2024

Hampton Place Subdivision Density Calculations

Prepared By: Bramhall Engineering and Surveying Co. by: SJM Date: 9/26/2024

Acreage Summary (Preliminary Plan Prepared by Suhail, Dated 10/16/2020)		
Phase No. 1	17.58 Acres	
Phase No. 2	14.86 Acres	
Phase No. 3	23.44 Acres	
Phase No. 4	39.63 Acres	
Phase No. 5	20.96 Acres	
Phase No. 6	40.48 Acres	(Divided into Phase 6 & 7)
Phase No. 7	11.5 Acres	(Portion of Phase 8)
Total	168.45 Acres	

Acreage Summary - Updated		
Phase No. 1	17.58 Acres	
Phase No. 2	14.86 Acres	
Phase No. 3	23.44 Acres	
Phase No. 4	39.63 Acres	
Phase No. 5	20.96 Acres	
Phase No. 6	24.83 Acres	
Phase No. 7	15.65 Acres	
Phase No. 8	28.41 Acres	(11.5 acres original 16.91 acres additional)
Total	185.36 Acres	

Phase 1 - 8 Allowable Density

Allowable Density = 2.3 Units/Acre

Phase	Allowable Units	Cluster Rate	Number of Clusters Allowed	Clusters Built	Single Family Built	Total Density	Total Cluster Percentage
No. 1	40	45	18	0	34	1.93	0.0
No. 2	34	45	15	32	7	2.62	82.1
No. 3	54	45	24	19	21	1.71	47.5
No. 4	91	45	41	53	25	1.97	67.9
No. 5	48	45	22	29	39	3.24	42.6
No. 6	57	45	26	25	38	2.54	39.7
No. 7	36	45	16	18	24	2.68	42.9
No. 8 (Original)	26	45	12	0	20	1.74	0.0
No. 8 (Additional)	38	35	13	11	24	2.07	31.4
Total Units	424		187	187	232	2.26	44.6

Total Hampton Place Subdivision Single Family and Cluster Breakdown		
	Single Family	Clusters
Provided - Phase 1 - 7	188	176
Proposed - Phase 8	44	11
Total - Phase 1 - 8	232	187
Allowable - Phase 1 - 8	237	187

Open Space Summary			
Phase	Blocks	Acreage (Per Plat)	Open Space Percentage
No. 1	A,B,C,D,E & F	3.58	20.4
No. 2	G, H & I	4.58	30.8
No. 3	K & J	10.16	43.3
No. 4	L, M, N & O	18.53	46.8
No. 5	P, Q & R	0.85	4.1
No. 6	S, T, U, V & W	4.38	17.6
No. 7	X & Y	2.14	13.7
No. 8	Z, AA & BB	7.03	24.7
Total		51.25	27.6

Average Single Family Lot Front Setback			
Phase	Sublots	Front Setback (Per Plat)	Average Front Setback
No. 1	1-34	35	35
No. 2	35-41	35	35
No. 3	74-82	40	37.6
	83-87	30	
	88-94	40	
No. 4	114-138	35	35
No. 5	192-220	35	35.1
	250-258	35	
	259	40	
No. 6	260-281	35	35
	307-322	35	
No. 7	323-330	35	35
	349-364	35	
No. 8	365-393	35	35
	405-419	35	

Average Single Family Lot Width	
Phase	Lot Width
No. 6	89.93
No. 7	96.07
No. 8	90.37

Note:

1). Phases 1-5 Subdivision Plans not prepared by Bramhall Engineering and Surveying Company

Hampton Place Subdivision Phase 6 Sublot Breakdown

Prepared By: Bramhall Engineering and Surveying Co.
by: SJM
Date: 9/26/2024

Single Family Sublots Breakdown				
Sublot Number	Front Yard Setback (Feet)	Side Yard Setback (Feet)	Rear Yard Setback (Feet)	Lot Frontage at Front Yard Setback (Feet)
260	35	7.5	30	98.15
261	35	7.5	30	97.50
262	35	7.5	30	97.50
263	35	7.5	30	95.00
264	35	7.5	30	92.50
265	35	7.5	30	88.00
266	35	7.5	30	88.00
267	35	7.5	30	88.00
268	35	7.5	30	87.50
269	35	7.5	30	87.50
270	35	7.5	30	112.43
271	35	7.5	30	123.66
272	35	7.5	30	87.50
273	35	7.5	30	82.50
274	35	7.5	30	80.00
275	35	7.5	30	96.95
276	35	7.5	30	100.00
277	35	7.5	30	103.90
278	35	7.5	30	89.50
279	35	7.5	30	96.43
280	35	7.5	30	102.08
281	35	7.5	30	85.63
307	35	7.5	30	85.00
308	35	7.5	30	85.00
309	35	7.5	30	85.00
310	35	7.5	30	85.00
311	35	7.5	30	85.00
312	35	7.5	30	100.00
313	35	7.5	30	80.00
314	35	7.5	30	80.00
315	35	7.5	30	80.00
316	35	7.5	30	80.00
317	35	7.5	30	87.27
318	35	7.5	30	82.58
319	35	7.5	30	82.58
320	35	7.5	30	82.58
321	35	7.5	30	82.58
322	35	7.5	30	82.58
Sublot Averages	**35**			**89.93**

Hampton Place Subdivision Phase 7 Sublot Breakdown

Prepared By: Bramhall Engineering and Surveying Co.
by: SJM
Date: 9/26/2024

Single Family Sublots Breakdown				
Sublot Number	Front Yard Setback (Feet)	Side Yard Setback (Feet)	Rear Yard Setback (Feet)	Lot Frontage at Front Yard Setback (Feet)
323	35	7.5	30	91.43
324	35	7.5	30	91.43
325	35	7.5	30	91.43
326	35	7.5	30	95.00
327	35	7.5	30	97.50
328	35	7.5	30	95.00
329	35	7.5	30	88.08
330	35	7.5	30	110.11
349	35	7.5	30	85.34
350	35	7.5	30	141.90
351	35	7.5	30	115.31
352	35	7.5	30	85.34
353	35	7.5	30	85.34
354	35	7.5	30	85.34
355	35	7.5	30	110.89
356	35	7.5	30	88.61
357	35	7.5	30	100.50
358	35	7.5	30	100.00
359	35	7.5	30	106.43
360	35	7.5	30	88.92
361	35	7.5	30	84.55
362	35	7.5	30	85.34
363	35	7.5	30	86.85
364	35	7.5	30	95.00
Sublot Averages	**35**			**96.07**

SUB/CIR: SLATER/W111413

Hampton Place Phase 8

DEVELOPER CONTACT: Jason Fischbach
Valore Builders Inc.
(440) 554-5959

1- 2 AL JCN 15KV PRI CABLE 4538'
2- 3/0 : 1-1/0 AL TPX SEC 1961'
10- 25KVA PM XFMR 120/240V 7.2KV
3- 50KVA PM XFMR 120/240V 7.2KV
15- DOME HANDHOLES

CLOSE NORMAL OPEN
SITE# 209886D63153

NORMAL OPEN

209923D63307
209914D63291
209893D63275
209879D63193
209887D63188
209925D63179
209888D63154
209932D63162
209893D63125
209922D63120
42CT1A-3
42CT1A-2

Station No:

Loc 011
209962D63291
INST: 1 15-400

Loc 023
209969D63286
INST: 1 11-210
1-25kVA,
A S/N:_____
120/240V

Loc 012
209952D63286
INST: 1 15-400

Loc 024
209961D63281
INST: 1 11-210
1-25kVA,
A S/N:_____
120/240V

Loc 013
209972D63267
INST: 1 15-400

Loc 017
209993D63276
INST: 1 11-210
1-25kVA,
A S/N:_____
120/240V

Loc 010
210008D63287
INST: 1 15-400

Loc 009
210015D63276
INST: 1 15-400

Loc 033
210008D63271
INST: 1 11-210
1-25kVA, 120/240V

Loc 025
209980D63251
INST: 1 11-210
1-25kVA,
A S/N:_____
120/240V

Loc 008
209990D63253
INST: 1 15-400

Loc 034
209991D63246
INST: 1 11-210
1-25kVA, 120/240V

Loc 014
209982D63230
INST: 1 15-400

Loc 007
209992D63229
INST: 1 15-400

Loc 018
210010D63226
INST: 1 11-210
1-50kVA,
A S/N:_____
120/240V

Loc 016
209982D63214
INST: 1 11-210
1-50kVA,
A S/N:_____
120/240V

Loc 006
210019D63221
INST: 1 15-400

Loc 019
210002D63215
INST: 1 11-210
1-50kVA,
A S/N:_____
120/240V

Loc 005
210014D63211
INST: 1 15-400

Loc 004
209992D63208
INST: 1 15-400

Loc 022
209996D63186
INST: 1 11-210
1-25kVA,
A S/N:_____
120/240V

Loc 028
209944D83179
EX: 1 11-210
1-50kVA,
A-PH
120/240V

Loc 021
209960D63179
INST: 1 11-210
1-25kVA,
A S/N:_____
120/240V

Loc 015
209980D63196
INST: 1 15-400

Loc 020
209993D63178
INST: 1 11-210
1-25kVA,
A S/N:_____
120/240V

Loc 003
210013D63185
INST: 1 15-400

Loc 027
209945D63173
EX: 1 11-210
1-25kVA,
A-PH
120/240V

Loc 001
209959D63170
INST: 1 15-400

Loc 029
209973D63174
INST: 1 11-210
1-25kVA, 120/240V

INST: 2 15KV, #2 AL

Loc 002
210007D63172
INST: 1 15-400

ABANDON

BRIDGE HAMPTON LN
WINDMERE PLACE
DEWBERRY CRT
LEO DRIVE

S/L 365 S/L 366 S/L 367 S/L 368 S/L 369 S/L 370 S/L 371 S/L 372 S/L 373 S/L 374 S/L 375 S/L 376 S/L 377 S/L 378 S/L 379 S/L 380 S/L 381 S/L 382 S/L 383 S/L 384 S/L 385 S/L 386 S/L 387 S/L 388 S/L 389 S/L 390 S/L 391 S/L 392 S/L 393 S/L 394 S/L 395 S/L 396 S/L 397 S/L 398 S/L 399 S/L 400 S/L 401 S/L 402 S/L 403 S/L 404 S/L 405 S/L 406 S/L 407 S/L 408 S/L 409 S/L 410 S/L 411 S/L 412 S/L 413 S/L 414 S/L 415 S/L 416 S/L 417

WR#: 63324591	SAP Order #: 770652392	Req ISD: ---	Print Date: 9/17/24
Street Address: 365 WINDMERE PL		State One Call#: ---	Project #:
City, State Zip: NORTH RIDGEVILLE OH 44039		JU Proposal #:	
Sub/Circ: SLATER/ W111414		Designer: DAN O'LEARY 216-219-2882	
Upstream Prot Device: ---		Approver:	
Customer: VALORE PROPERTIES 440-331-1900		Cust Elec:	
Construction Foreman Signature:	Date:	Notes/Comments:	Date:
Forest:	Joint Use:	Sheet 1 of 2	REV: Revision 1

Scale 1:67

FirstEnergy

December 4, 2024

City of North Ridgeville
7307 Avon Belden Rd
North Ridgeville, OH 44039
Phone: (440)490-2046

To Whom It May Concern,

Valore Properties, Inc, secured a construction A&D loan with CF Bank for the sum of $3 million dollars for Hampton Place Phase 8 (The Project).

Sincerely

Mark Nykaza
Market President, NE Ohio

100 Park Avenue, Suite 420
Orange Village, Ohio 44122

SUPPLEMENTAL DECLARATION
OF COVENANTS, CONDITIONS AND RESTRICTIONS,
AND RESERVATION OF EASEMENTS
FOR THE HAMPTON PLACE
HOMEOWNERS ASSOCIATION, INC.

Hampton Place Subdivision No. 8

Whereas, the Declaration of Covenants, Conditions and Restrictions and Reservation of Easements for The Hampton Place Homeowners Association is recorded in Document No. 2008-0252058 of the Official Records of Lorain County as amended and supplemented (the Declaration), and

Whereas, the Declaration is binding upon all Owners and the property described in Exhibit A, attached, and

Whereas, Valore Properties, Inc. is the Declarant of the Declaration, and

Whereas, pursuant to Article II, Section 2.3, and Article IV, Section 4.1, the Declaration may be amended or supplemented by a recorded instrument executed by the Declarant for the purpose of designating Neighborhoods and Common Elements, imposing additional restrictions and assigning maintenance responsibilities, and

Whereas, the Declarant desires to supplement the Declaration as to certain property; now therefore

Declarant hereby supplements the Declaration as follows:

I. Annexation. Pursuant to Article XII, Section 12.1, the property described in Exhibit A is hereby annexed and submitted to the terms of the Declaration which shall be a covenant running with the land and binding upon the land and all owners thereof.

II. **Designation of Neighborhood.** The property described in Exhibit A shall be deemed to be a part of the Standard Lot Neighborhood as set forth in Article II, Section 2.3 of the Declaration and subject to the Assessments as set forth in the Declaration as amended and supplemented.

III. **Designation of Common Elements.** The property expressly described in Exhibit B shall be deemed to be Common Elements as set forth in Article IV, Section 4.1 of the Declaration.

A. **Maintenance Easement.** The Association, its agents, contractors, subcontractors, and employees, shall have an easement over all of the Common Elements to perform all maintenance required by the Declaration.

B. **Use.** Each Owner is hereby granted a non-exclusive and irrevocable license to use and occupy the Common Elements. The use of the Common Elements is restricted to the purposes for which they are associated and in accordance with this Declaration and the rules and regulations of the Association. No other use may be inferred by location or proximity to a Dwelling Unit.

IV. **Reservation of Easements.** Declarant reserves unto itself, its successors and assigns, storm sewer easements, ditch easements and utility easements as shown on the Record Plan. Storm sewer easements shown and noted on the Record Plan shall be part of the Surface Water Management System as set forth in the Declaration.

V. **Declarant's Rights.** Declarant hereby reserves all rights as set forth in the Declaration with respect to the Common Elements.

[REMAINDER OF PGE BLANK / SIGNATURE PAGE(S) FOLLOW]

IN WITNESS WHEREOF, Valore Properties, Inc. has caused this Amendment to the Declaration to be signed this ___ day of _____ 2024, by Anthony M. Valore, its President.

Valore Properties, Inc.

By: _____
Anthony M. Valore
President

STATE OF OHIO)
) ss:
COUNTY OF CUYAHOGA)

The foregoing instrument was acknowledged before me, this ____ day of _____ 2024, by Anthony M. Valore, President of Valore Properties, Inc., an Ohio corporation, on behalf of the corporation.

_____
Notary Public

Instrument Prepared By
And When Recorded Return To:

Stephen J. Crawford, Esq.
Crawford Law LLC
2825 Key Tower
127 Public Square
Cleveland, OH 44114-1257
scrawford@crawfordlawllc.com
Phone: (216) 750-6155

EXHIBIT A
Land Submitted to Declaration

Situate in the County of Lorain, State of Ohio, City of North Ridgeville and being part of O.L. 29, being Sublots 365 through 419, Block Z, Block AA and Block BB as shown on the record plat for Hampton Place Subdivision No. 8, Document No. _____ of the Lorain County, Ohio Plat Records.

EXHIBIT B
Common Elements

Situate in the County of Lorain, State of Ohio, City of North Ridgeville and being part of O.L. 29, Block Z, Block AA and Block BB and Drainage, Utility and Landscape Easements as shown on the record plat for Hampton Place Subdivision No. 8, Document No. _____ of the Lorain County, Ohio Plat Records.

IMPROVEMENT PLANS

FOR

HAMPTON PLACE SUBDIVISION - PHASE 8

BEING SUBLOTS 365-419 INCLUSIVE AND SITUATED IN THE CITY OF NORTH RIDGEVILLE, COUNTY OF LORAIN,
STATE OF OHIO AND KNOWN AS BEING PART OF ORIGINAL RIDGEVILLE TOWNSHIP LOT NUMBER 29.

INDEX OF SHEETS:

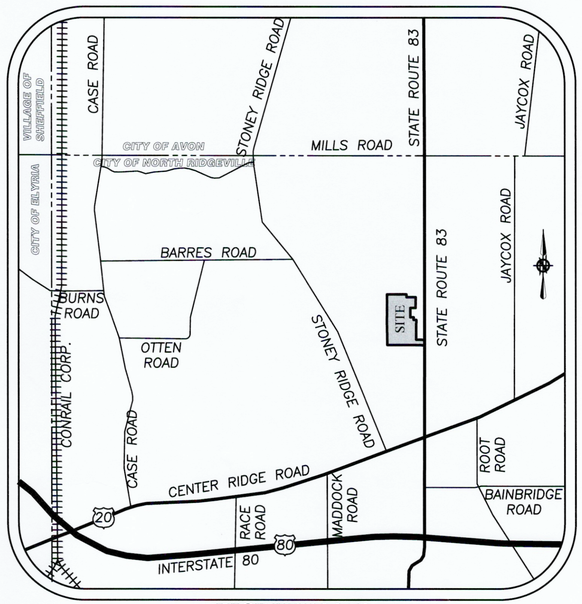
TITLE SHEET 1
EXISTING CONDITIONS – DEMO PLAN 2
ENLARGED EXISTING CONDITIONS – DEMO PLAN 3
GENERAL NOTES 4–5
TYPICAL SECTIONS 6
GENERAL PLAN 7
SURVEY CONTROL PLAN 8

PLAN AND PROFILES
- JANNIE LANE STA 20+00 TO STA 23+50 9
- JANNIE LANE STA 23+50 TO STA 25+25.08 10
- WINDERMERE PLACE STA 3+43.95 TO STA 7+50 11
- WINDERMERE PLACE STA 7+50 TO STA 11+75 12
- WINDERMERE PLACE STA 11+75 TO STA 14+50 13
- WINDERMERE PLACE STA 14+50 TO STA 17+00 14
- LEO DRIVE STA 0+00 TO STA 4+50 15
- DEWBERRY COURT STA 0+00 TO STA 4+50 16
- BRIDGE HAMPTON LANE STA 0+00 TO STA 5+00 17

UTILITY PLAN 18
STRUCTURE TABLES 19
STORM PROFILES 20–21
SANITARY PROFILE 22
GRADING PLAN 23–26
ENLARGED GRADING DETAILS 27–30
INTERSECTION DETAILS 31–36
ACCESS PAD DETAILS 37
STORMWATER MANAGEMENT BASIN 38
MISCELLANEOUS DETAILS 39–44
INTERIM SWP3 PLAN 45
SWP3 PLAN 46
SWP3 NOTES & DETAILS 47–51
TREE PLANTING PLAN 52
HAMPTON PLACE SUBDIVISION NUMBER 8 PLAT 1–6

LEGEND OF SYMBOLS & LINETYPES:

- CENTERLINE
- RIGHT–OF–WAY
- POWER POLE
- EXISTING WATER VALVE
- PROPOSED WATER VALVE
- CLEAN OUT
- EXISTING MONUMENT BOX
- TOP OF CURB (T/C)
- FINISH GRADE AT HOUSE (F.G.)
- EXISTING ELECTRIC BOX
- EXISTING CABLE BOX
- EXISTING GAS MARKER
- SUBLOT LINE
- PROPOSED STORM
- PROPOSED WATER
- PROPOSED SANITARY
- PROPOSED FIRE HYDRANT
- EXISTING FIRE HYDRANT
- SURFACE WATER FLOW
- PROPOSED YARD DRAIN
- EXISTING CATCHBASIN
- PROPOSED CATCHBASIN
- PROPOSED MONUMENT BOX
- EXISTING MANHOLE
- PROPOSED MANHOLE
- SPOT GRADE ELEVATION (EXIST / PROP)
- EXISTING STORM
- EXISTING GAS
- EXISTING WATER
- EXISTING SANITARY
- EXISTING EASEMENT
- PROPOSED EASEMENT



VICINITY MAP
NOT TO SCALE

APPROVALS ON BEHALF OF THE CITY OF NORTH RIDGEVILLE:

CHRISTINA EAVENSON, P.E.
CITY ENGINEER

6-14-24
DATE

ENGINEER PREPARING PLANS:

CHRISTOPHER L. HOWARD, P.E.
REGISTERED PROFESSIONAL ENGINEER NO. E–61829

STATE OF OHIO
CHRISTOPHER L. HOWARD
E-61829
REGISTERED PROFESSIONAL ENGINEER

5/24/2024
DATE

EPA APPROVALS:

APPROVED BY THE OHIO EPA LETTER DATED MARCH 15, 2024 (SANITARY)

APPROVED BY THE OHIO EPA LETTER DATED JANUARY 22, 2024 (WATER)

UTILITY INFORMATION

PAVEMENT, STORM, SANITARY, WATER
CITY OF NORTH RIDGEVILLE
35010 BAINBRIDGE ROAD
NORTH RIDGEVILLE, OHIO 44039
PHONE: (440) 353 0814
FAX: (440) 353 3257

GAS
COLUMBIA GAS
3101 NORTH RIDGE ROAD E
LORAIN, OHIO 44055
PHONE: (440) 891 2428

INTERNET/CABLE/PHONE
WIDE OPEN WEST
105 BLAZE INDUSTRIAL PARKWAY
ELYRIA, OH 44035
PHONE: (440) 606 6262

TELEPHONE
WINDSTREAM
560 TERNES AVENUE
ELYRIA, OHIO 44035
PHONE: (440) 329 4247

CABLE
SPECTRUM
576 TERNES LANE
ELYRIA, OH 44035
PHONE: (440) 366 0416

ELECTRIC
OHIO EDISON
6326 LAKE AVENUE
ELYRIA, OHIO 44035
PHONE: (440) 326 3271

NOTE

1. STREET LIGHTING IS TO BE INSTALLED BY THE DEVELOPER WITH THIS PROJECT.
2. PER CITY ORDINANCE 3862–2002 THE CITY OF NORTH RIDGEVILLE SHALL INSTALL ALL TRAFFIC CONTROL DEVICES. THE DEVELOPER WILL BE CHARGED FOR THE INSTALL OF THE DEVICES.
3. A MINIMUM OF 1 TREE SHALL BE INCLUDED ON THE INDIVIDUAL SITE PLAN. THE PROPOSED TREE SHALL BE POSITIONED SO THAT IT WILL BE OUTSIDE OF THE CITY RIGHT–OF–WAY. (SEE SHEET 52)

EXISTING UNDERGROUND UTILITIES NOTE:

THE SIZE & LOCATION, BOTH HORIZONTAL AND VERTICAL, OF THE UNDERGROUND UTILITIES SHOWN HEREON, HAVE BEEN OBTAINED BY A SEARCH OF AVAILABLE RECORDS. VERIFICATION BY FIELD OBSERVATION HAS BEEN CONDUCTED WHERE PRACTICAL. HOWEVER, BRAMHALL ENGINEERING AND SURVEYING COMPANY, INC. DOES NOT GUARANTEE THE COMPLETENESS NOR ACCURACY THEREOF.

OHIO UTILITIES PROTECTION SERVICE		OHIO OIL & GAS PRODUCERS UNDERGROUND PROTECTION SERVICE
BEFORE YOU DIG ANYWHERE IN OHIO! **CALL 1–800–362–2764 OR 8–1–1 (TOLL FREE)** OHIO LAW REQUIRES 48 HOURS BUT NO MORE THAN 10 WORKING DAYS NOTICE TO UTILITIES BEFORE YOU EXCAVATE, DRILL, BLAST OR DEMOLISH (NON MEMBERS MUST BE CALLED DIRECTLY) WWW.OUPS.ORG TICKET NO.:	OHIO Utilities Protection SERVICE Call Before You Dig	**TWO WORKING DAYS BEFORE YOU DIG** **CALL 1–800–925–0988 (TOLL FREE)** **WWW.OGPUPS.COM**

REVISION:	DATE:	BY:	DESCRIPTION:
	11/17/2023	CLH	ISSUE TO CITY FOR ENGINEERING REVIEW
	12/19/2023	CLH	ISSUE TO OEPA FOR REVIEW
	02/27/2024	CLH	REVISED CITY COMMENTS
	04/23/2024	CLH	REVISED PER CITY COMMENTS
	05/24/2024	CLH	REVISED PER CITY COMMENTS

DRAWN BY: SJM
CHECKED BY: CLH

BRAMHALL
ENGINEERING AND SURVEYING COMPANY
801 MOORE ROAD AVON, OHIO 44011
(440) 934 - 7878 (440) 934 - 7879 FAX

PREPARED FOR:
VALORE PROPERTIES, INC.
23550 CENTER RIDGE ROAD
WESTLAKE, OH 44145

HAMPTON PLACE SUBDIVISION - PHASE 8
TITLE SHEET
CITY OF NORTH RIDGEVILLE, COUNTY OF LORAIN, STATE OF OHIO

SHEET 1 OF 52
JOB NO. 20-5445-8

J:\20544S-8 Hampton Place PH-8\DRAWINGS\Improvement Plans\(01) Title Sheet.dwg, Plotted: May 28, 2024 - 8:01am

EXISTING STORM STRUCTURE TABLE

STRUCTURE NAME	RIM	INVERT(S)	STRUCTURE LOCATION
EX-CB-2	RIM 711.36	6" (W) INV.: 709.11 12" (N) INV.: 708.91	N: 631738.34 E: 2099394.84
EX-CB-3	RIM 711.38	6" (W) INV.: 708.88 12" (S) INV.: 708.73 12" (NW) INV.: 708.93	N: 631761.14 E: 2099394.89
EX-CB-4	RIM 706.09	10" (W) INV.: 703.34 8" (E) INV.: 703.39	N: 631465.29 E: 2100488.44
EX-CB-5	RIM 707.03	12" (W) INV.: 704.78 8" (N) INV.: 704.73 8" (S) INV.: 704.73	N: 631466.40 E: 2100541.93
EX-MH-1	RIM 711.79	12" (SE) INV.: 708.79 15" (W) INV.: 708.29	N: 631768.60 E: 2099389.08
EX-YD-1	RIM 704.84	8" (W) INV.: 703.34 8" (N) INV.: 703.04 8" (S) INV.: 703.04	N: 631465.04 E: 2100500.17

EXISTING SANITARY STRUCTURE TABLE

STRUCTURE NAME	RIM	INVERT(S)	STRUCTURE LOCATION
EX-SMH-2	RIM 711.92	8" PVC (E) INV.: 699.81 8" PVC (W) INV.: 699.72	N: 631773.15 E: 2099406.61

CONTROL POINTS

CONTROL POINT NO. 1:
MAG NAIL SET IN SIDEWALK ON THE NORTHERN WALK AT END OF WINDERMERE PLACE
N: 633025.63
E: 2099394.42

CONTROL POINT NO. 2:
5/8" IRON REBAR SET
N: 631711.50
E: 2100500.83

CONTROL POINT NO. 3:
MAG NAIL SET IN SIDEWALK ON IN THE SOUTHEAST CORNER OF INTERSECTION OF S.R. 83 & MILDRED STREET
N: 631687.53
E: 2100546.33

BENCHMARK

BENCHMARK NO. 1:
TOP TURN NUT ON HYDRANT LOCATED IN BETWEEN SUBLOTS 362 & 363 IN HAMPTON PLACE SUBDIVISION NO. 7
ELEV.: 715.04

NOTE:

1. CONTRACTOR SHALL CLEAR TREES BETWEEN OCTOBER 1ST AND MARCH 31ST.

EXISTING UNDERGROUND UTILITIES NOTE:

THE SIZE & LOCATION, BOTH HORIZONTAL AND VERTICAL, OF THE UNDERGROUND UTILITIES SHOWN HEREON, HAVE BEEN OBTAINED BY A SEARCH OF AVAILABLE RECORDS. VERIFICATION BY FIELD OBSERVATION HAS BEEN CONDUCTED WHERE PRACTICAL. HOWEVER, BRAMHALL ENGINEERING AND SURVEYING COMPANY DOES NOT GUARANTEE THE COMPLETENESS NOR ACCURACY THEREOF.

LEGEND

- TREE CLEARING LIMITS
- TREE TO BE REMOVED
- WETLAND AREAS TO BE MITIGATED BY OTHERS
- WETLAND AREAS W-A, W-B, & W-C (PER WETLAND DELINEATION PREPARED BY FLICKINGER GEOSERVICES GROUP DATED 07/17/2023) (HAMPTON SE) & 01/19/2023) (MILLER PROPERTY)
- EXISTING CONTOURS (PER FIELD TOPO GATHERED IN DECEMBER OF 2022)
- PHASE 7 IMPROVEMENTS CONTOURS

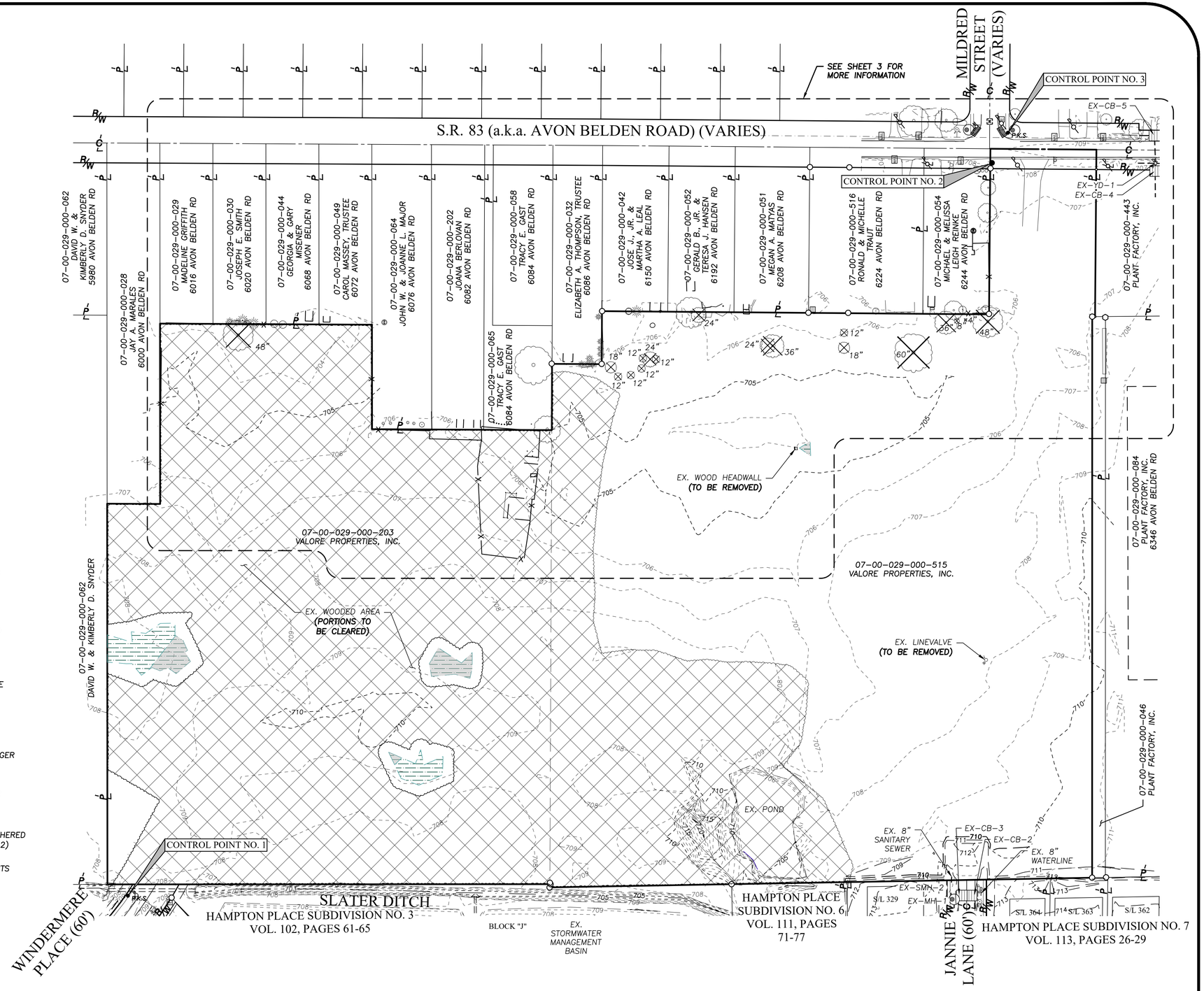
GRAPHIC SCALE
0 80 40 160
(IN FEET)
SCALE: 1" = 80'

SURVEY NOTE:

A BOUNDARY SURVEY PURSUANT TO CHAPTER 4733-37 OF THE OHIO ADMINISTRATIVE CODE HAS BEEN PERFORMED BY BRAMHALL ENGINEERING & SURVEYING COMPANY.

PROJECT DATUM

REFERENCE DATUM: STATE PLANE OHIO NORTH 3401 (GRID)
HORIZONTAL DATUM: NAD 1983
VERTICAL DATUM: NAVD 1988



REVISION	DATE:	BY:	DESCRIPTION:
	11/17/2023	CLH	ISSUE TO CITY FOR ENGINEERING REVIEW
	12/19/2023	CLH	ISSUE TO OEPA FOR REVIEW
	02/27/2024	CLH	REVISED CITY COMMENTS
	04/23/2024	CLH	REVISED PER CITY COMMENTS
	05/24/2024	CLH	REVISED PER CITY COMMENTS

DRAWN BY: SJM
CHECKED BY: CLH

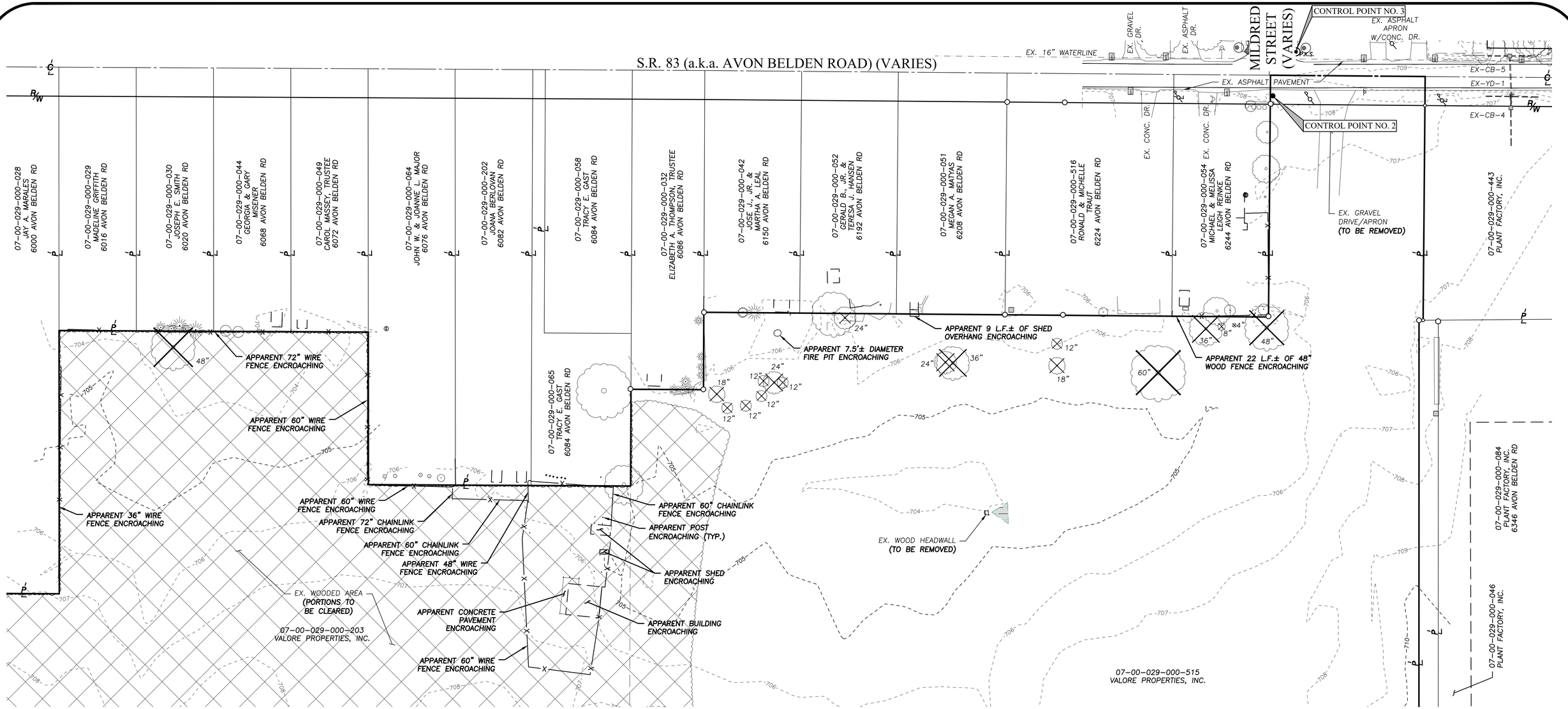
BRAMHALL
ENGINEERING AND SURVEYING COMPANY
801 MOORE ROAD AVON, OHIO 44011
(440) 934 - 7878 (440) 934 - 7879 FAX

PREPARED FOR:
VALORE PROPERTIES, INC.
23550 CENTER RIDGE ROAD
WESTLAKE, OH 44145

HAMPTON PLACE SUBDIVISION - PHASE 8
EXISTING CONDITIONS - DEMO PLAN
CITY OF NORTH RIDGEVILLE, COUNTY OF LORAIN, STATE OF OHIO

SHEET 2 OF 52
JOB NO. 20-5445-8

J:\20\5445-8 Hampton Place PH-8\DRAWINGS\Improvement Plans\(02) Existing Conditions - Demo Plan.dwg, Plotted: May 29, 2024 - 8:02am



GRAPHIC SCALE
0 80
40 160
(IN FEET)
SCALE: 1" = 80'

SURVEY NOTE:

A BOUNDARY SURVEY PURSUANT TO CHAPTER 4733-37 OF THE OHIO ADMINISTRATIVE CODE HAS BEEN PERFORMED BY BRAMHALL ENGINEERING & SURVEYING COMPANY.

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REFERENCE DATUM: STATE PLANE OHIO NORTH 3401 (GRID)
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NOTE:

1. SEE SHEET 2 FOR EXISTING STORM STRUCTURE TABLE.

LEGEND

- TREE CLEARING LIMITS
- TREE TO BE REMOVED
- WETLAND AREAS TO BE MITIGATED BY OTHERS
- WETLAND AREAS W-A, W-B, & W-C (PER WETLAND DELINEATION PREPARED BY FLICKINGER GEOSERVICES GROUP DATED 07/17/2023) (HAMPTON SE) & 01/19/2023) (MILLER PROPERTY)
- EXISTING CONTOURS (PER FIELD TOPO GATHERED IN DECEMBER OF 2022)

CONTROL POINTS

CONTROL POINT NO. 1:
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E: 2099394.42

CONTROL POINT NO. 2:
5/8" IRON REBAR SET
N: 631711.50
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BENCHMARK

BENCHMARK NO. 1:
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ELEV.: 715.04

REVISION	DATE:	BY:	DESCRIPTION:
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DRAWN BY: SJM
CHECKED BY: CLH

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PREPARED FOR:
VALORE PROPERTIES, INC.
23550 CENTER RIDGE ROAD
WESTLAKE, OH 44145

HAMPTON PLACE SUBDIVISION - PHASE 8
ENLARGED EXISTING CONDITIONS - DEMO PLAN
CITY OF NORTH RIDGEVILLE, COUNTY OF LORAIN, STATE OF OHIO

SHEET 3 OF 52
JOB NO. 20-5445-8

J:\2054\5-8 Hampton Place PH-8\DRAWINGS\Improvement Plans\(03) Enlarged Existing Conditions - Demo Plan.dwg, Plotted: May 28, 2024 - 8:02am

CITY OF NORTH RIDGEVILLE
STANDARD GENERAL NOTES

GENERAL

1. ALL WORK AND MATERIALS SHALL MEET THE RULES, LAWS & CODES OF THE CITY OF NORTH RIDGEVILLE.

2. THE FOLLOWING UTILITIES MAY BE LOCATED WITHIN THE WORK LIMITS OF THIS PROJECT:

PAVEMENTS	CITY OF NORTH RIDGEVILLE	(440) 353-0842
STORM SEWERS	CITY OF NORTH RIDGEVILLE	(440) 353-0842
SANITARY SEWERS	CITY OF NORTH RIDGEVILLE	(440) 353-0842
WATERLINES	CITY OF NORTH RIDGEVILLE	(440) 353-0842
GAS-COLUMBIS GAS	DAN SUREN	(440) 891-2428
TELEPHONE-WINDSTREAM	GEOFF HAMM	(440) 329-4247
ELECTRIC-OHIO EDISON	MIKE ZANNI	(440) 326-3271
CABLE-SPECTRUM	RON HRIBAL	(440) 366-0416 (EXT. 625)
WATER TRANSMISSION	AVON LAKE MUNICIPAL UTILITIES	(440) 933-6226

THE CONTRACTOR SHALL VERIFY THE ABOVE INFORMATION WITH OUPS WHEN HE CONTACTS THEM BEFORE CONSTRUCTION BEGINS.

3. THE CONTRACTOR SHALL LOCATE ALL UTILITIES OR UNDERGROUND STRUCTURES PRIOR TO CONSTRUCTION AND NOTIFY EACH RESPECTIVE UTILITY OWNER FORTY-EIGHT (48) HOURS PRIOR TO COMMENCEMENT OF CONSTRUCTION.

4. WHERE IN ANY CASE THE PLANS AND SPECIFICATIONS DO NOT ENTIRELY COVER MATERIALS AND/OR WORKMANSHIP, THE "STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, CONSTRUCTION AND MATERIAL SPECIFICATIONS", CURRENT EDITION WILL APPLY. ODOT REFERENCES MAY BE INDICATED THROUGHOUT THE PLANS. MATERIAL AND WORKMANSHIP SHALL ALSO CONFORM TO THE SPECIFICATIONS, RULES AND ORDINANCES OF THE CITY OF NORTH RIDGEVILLE. WHERE CONFLICTS OCCUR IN THE ABOVE, THE CITY ENGINEER SHALL DETERMINE THE GOVERNING AUTHORITY. ANY DEFECTS IN THE CONSTRUCTION INCLUDING MATERIALS OR WORKMANSHIP SHALL BE REPAIRED OR REPLACED AS DIRECTED BY THE CITY ENGINEER. REFERENCES THROUGHOUT THESE PLANS TO "THE ENGINEER" SHALL BE THE CITY ENGINEER.

5. ALL WORK SHALL BE DONE IN A SAFE MANNER AND AS A MINIMUM SHALL COMPLY WITH THE SPECIFIC SAFETY REQUIREMENTS OF THE OSHA AS DEFINED IN 29 CRF 1926.

6. AT LEAST FIVE DAYS PRIOR TO THE START OF ACTUAL CONSTRUCTION WORK, A PRE-CONSTRUCTION CONFERENCE SHALL BE HELD AT THE DIRECTION OF THE CITY OF NORTH RIDGEVILLE ENGINEER AND APPROPRIATE CITY OFFICIALS, AND THE OWNER'S ENGINEER. THE CONTRACTOR OR HIS AUTHORIZED SUPERINTENDENT SHALL BE PRESENT, ALONG WITH ANY AND ALL PRIVATE UTILITY COMPANY REPRESENTATIVES. THIS MEETING WILL BE FOR COORDINATION AND PROCEDURE REVIEW PRIOR TO COMMENCING ANY PHYSICAL WORK.

7. THE CONTRACTOR SHALL NOT COMMENCE WITH ANY FORM OF CONSTRUCTION WITHOUT GIVING 24 HOUR NOTICE TO THE OFFICE OF THE CITY ENGINEER TO ARRANGE FOR INSPECTION. IF ANY CHANGE IN THE WORK SCHEDULE BECOMES NECESSARY, IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE INSPECTOR TO AVOID UNNECESSARY INSPECTION COSTS. IF NO NOTIFICATION IS MADE IN REGARDS TO CANCELLATION OF WORK, THE CONTRACTOR WILL BE CHARGED A MINIMUM OF FOUR (4) HOURS.

8. THE CONTRACTOR SHALL SUPPLY ALL LABOR, MATERIAL, AND EQUIPMENT NECESSARY, SUCH AS CALCIUM CHLORIDE, WATER, OR A MOTORIZED DUST-FREE STREET SWEEPING DEVICE, AS DIRECTED BY THE ENGINEER, TO MAINTAIN ALL ROADWAYS BEING USED FOR ACCESS TO THE CONSTRUCTION SITE.

9. THE CONTRACTOR SHALL FURNISH AND MAINTAIN ALL NECESSARY SAFEGUARDS SUCH AS BARRICADES, SATISFACTORY BARRIERS, LIGHTING, FLAGMEN, TEMPORARY GUARDRAIL, AND SUCH OTHER TRAFFIC CONTROL DEVICES AS PROVIDED IN "ITEM 614 - MAINTAINING TRAFFIC" SO AS TO AVOID DAMAGE AND/OR INJURY TO VEHICLES AND PERSONS USING THE ROADWAY DURING CONSTRUCTION. ALL AREAS OF PAVEMENT REMOVAL WHICH HAVE NOT BEEN FULLY RESTORED SHALL BE PROTECTED WITH CONES OR DRUMS DURING DAYLIGHT HOURS. THESE AREAS SHALL BE PROTECTED WITH FLASHING BARRICADES OR DRUMS WITH STEADY BURNING LIGHTS AT NIGHT. THE CONTRACTOR SHALL CONDUCT HIS OPERATIONS AS TO THE PROPOSED WORK WITH MINIMUM HAZARD, DELAY, AND INCONVENIENCE TO THE MOTORISTS USING THE STREETS AFFECTED BY THE WORK DONE UNDER THE CONTRACT AND HE SHALL COORDINATE ALL CLOSING OF STREETS WITH THE CITY ENGINEER AND THE POLICE CHIEF OF THE CITY OF NORTH RIDGEVILLE.

10. ACCESS ROADS SHALL BE KEPT FREE OF MUD, DEBRIS, DIRT, ETC, AND SHALL BE CLEANED EVERY DAY AT THE END OF WORK OR MORE FREQUENTLY IF SO ORDERED BY THE CITY OF NORTH RIDGEVILLE.

11. THE CONTRACTOR AND ANY SUBCONTRACTOR SHALL HAVE A COMPETENT SUPERVISOR ON THE PROJECT AT ALL TIMES WHEN WORK IS BEING DONE.

12. NO SLAG OR OTHER SULFUROUS MATERIAL WILL BE USED ON THE PROJECT.

12. FOR RESIDENTIAL SUBDIVISIONS, THE TRAFFIC CONTROL SIGNS WILL BE ERECTED BY THE CITY OF NORTH RIDGEVILLE AND THE COST OF INSTALLATION WILL BE PAID BY THE DEVELOPER. THE INSTALLATION AND COST OF THE STREET NAME SIGNS AND STREET LIGHTS WILL BE DONE BY THE DEVELOPER AT HIS EXPENSE.

13. THE CITY ENGINEER SHALL BE NOTIFIED FORTY-EIGHT (48) HOURS PRIOR TO BEGINNING THE ACTUAL CONSTRUCTION.

EARTHWORK

1. ALL EXCAVATION AND FILL WORK SHALL BE DONE IN ACCORDANCE WITH ODOT CONSTRUCTION AND MATERIALS SPECIFICATIONS.

2. THE SUBGRADE IN THE STREET SHALL BE LEFT TWO INCHES HIGH FOR THE PAVEMENT CONTRACTOR TO TRIM DOWN TO FINAL GRADE. THE CONTRACTOR SHALL PROOF ROLL THE GRADE WITH A FULLY LOADED (MAXIMUM LEGAL WEIGHT) TRIAXLE DUMP TRUCK. ANY "SOFT" SPOTS SHALL BE REMOVED AND REPLACED WITH COMPACTED EARTH.

3. EARTHWORK SHALL BE DONE IN SUCH A FASHION AS TO NOT TRAP WATER DURING CONSTRUCTION.

4. TREE AND BRUSH CLEARING/DISPOSAL SHALL BE DONE IN A MANNER ACCEPTABLE TO THE CITY OF NORTH RIDGEVILLE.

5. ALL PAVEMENT AREAS SHALL HAVE ALL ORGANICS AND TOPSOIL REMOVED FROM THE AREA.

6. AT ALL TIMES DURING THE PROGRESS OF THE WORK AND UNTIL RELEASE OF THE CONTRACTOR FROM HIS GUARANTEE BY THE OWNER, THE CONTRACTOR SHALL MAINTAIN THE BACKFILLED TRENCHES AND OTHER EXCAVATIONS. IN PARTICULAR, THOSE TRENCHES OR EXCAVATIONS WHICH ARE WITHIN FIFTEEN (15) FEET OF THE EDGE OF PAVEMENT OR THE EDGE OF TRAVELED ROADWAYS, SHALL BE KEPT FILLED UP THE SAME LEVEL AS THE ADJACENT UNDISUTRBED GROUND, ANY SETTLEMENT WHICH OCCURS DURING THIS PERIOD SHALL BE IMMEDIATELY FILLED IN TO PREVENT THE POSSIBILITY OF ACCIDENTS.

7. WHERE EXISTING SEWERS ARE ENCOUNTERED AND ARE INTERFERED WITH, FLOWS SHALL BE MAINTAINED. SEWAGE OR OTHER LIQUID MUST BE HANDLED BY THE CONTRACTOR EITHER BY CONNECTION INTO OTHER SEWERS (WITH THE APPROVAL OF THE CITY ENGINEER) OR BY TEMPORARY PUMPING TO A SATISFACTORY OUTLET. SEWAGE OR OTHER LIQUID SHALL NOT BE PUMPED, BAILED OR FLUMED OVER THE STREET.

9. BACKFILL SHALL INCLUDE THE MATERIAL PLACED ABOVE THE BEDDING AND SHALL CONSIST OF FINELY DIVIDED SOIL FREE FROM STONES, RUBBISH, LARGE CLUMPS OR OTHER HARMFUL DEBRIS. THE BACKFILL SHALL BE TAMPED IN SIX (6) INCH LAYERS.

10. BACKFILL WITHIN EXISTING OR PROPOSED PAVED OR STONE STREETS, ALLEYS, DRIVEWAYS, PARKING AREA AND PROPOSED SIDEWALKS, OR WITHIN FIVE (5) FEET OF THESE AREAS SHALL CONSIST OF A DURABLE GRAVEL OR CRUSHED STONE MEETING THE REQUIREMENTS OF ITEM 304 OF THE CURRENT ODOT CONSTRUCTION AND MATERIAL SPECIFICATIONS. THE USE OF A 304 RECYCLED CONCRETE EQUIVALENT AND SLAG IS PROHIBITED. THE GRANULAR BACKFILL SHALL BE MECHANICALLY TAMPED IN SIX (6) INCH LAYERS SO THAT THE BACKFILL WILL HAVE A DENSITY EQUAL TO A MINIMUM OF 95% OF THAT POSSIBLE UNDER OPTIMUM MOISTURE CONTENT AS DETERMINED BY STANDARD PROCTOR TEST.

ROADWAY

1. ALL TREES AND BRUSH, AND ANY OTHER VEGETATION WITHIN THE LIMITS OF THIS PROJECT THAT INTERFERE WITH THE CONSTRUCTION SHALL BE REMOVED FROM THE SITE. STUMPS MAY BE GROUND OUT OR REMOVED FROM THE SITE.

2. ALL EARTHWORK SHALL HAVE INSPECTION AND TESTING AS DEEMED NECESSARY BY THE CITY OF NORTH RIDGEVILLE. SUCH INSPECTION WILL BE COORDINATED BY THE "CONTRACTOR", WHO SHALL USE A SOILS TESTING LABORATORY TO MAKE THE TESTS INCIDENTAL TO THE QUALITY CONTROL OF THE EARTHWORK OPERATION. SOIL TESTING AND CLASSIFICATION SHALL BE PERFORMED BY THE SOILS TESTING LABORATORY TO DETERMINE THE PROPER MOISTURE CONTENT AND SOIL DENSITY BEFORE BEGINNING EARTHWORK CONSTRUCTION. THE COST OF THIS INSPECTION AND TESTING WILL BE PAID BY THE CONTRACTOR, THE CONTRACTOR SHALL PRESENT HIS PLAN AND SCHEDULE FOR EARTHWORK OPERATIONS AT THE PRE-CONSTRUCTION CONFERENCE.

3. WHERE SOFT SUBGRADE IS ENCOUNTERED, DUE TO NO FAULT OR NEGLECT OF THE CONTRACTOR, IN WHICH SATISFACTORY STABILITY CANNOT BE OBTAINED BY MOISTURE CONTROL AND COMPACTION, THE UNSTABLE MATERIAL SHALL BE EXCAVATED TO THE DEPTH REQUIRED BY THE ENGINEER. BACKFILLING OF THESE EXCAVATED AREAS SHALL BE WITH EMBANKMENT MATERIAL OR AGGREGATE BASE (ODOT ITEM 304) OR "AS DIRECTED BY THE ENGINEER."

4. CONCRETE WILL BE TESTED BY AN ODOT QUALIFIED LABORATORY DURING CONSTRUCTION FOR AIR ENTRAINMENT AND SLUMP. CONCRETE TEST CYLINDERS WILL BE PREPARED FOR EACH 50 YARDS OR FRACTION THEREOF. CONCRETE BEAMS MAY BE PREPARED AT THE CONTRACTOR'S OPTION. THE CONCRETE MIX DESIGN SHALL BE APPROVED BY THE SAME TESTING LABORATORY DESIGNATED TO PERFORM THE ON-SITE INSPECTION PRIOR TO CONSTRUCTION.

5. CONCRETE PAVEMENT CURING COMPOUND SHALL BE SILENCURE A FROM CHEMMASTERS, 300 EDWARDS ST., MADISON, OHIO, 44057.

6. IN AREAS OF HIGH GROUNDWATER OR WHERE SURFACE SEEPAGE HAS BEEN OBSERVED IT MAY BE NECESSARY TO CONSTRUCT DRAINS PERPENDICULAR TO THE PROPOSED PAVEMENT. THESE UNCLASSIFIED PIPE UNDERDRAINS, CONSTRUCTED IN ACCORDANCE WITH ODOT ITEM 605, SHALL BE 3 FEET BELOW PAVEMENT GRADE AND CONNECTED INTO THE APPROPRIATE STORM CONDUIT OR OUTLET. CONDUIT SHALL BE 6" DIAMETER PERFORATED PVC TYPE PS-46 PIPE CONFORMING TO ASTM F-758 OR 6" DIAMETER PERFORATED PSM POLYVINYL CHLORIDE (PVC) PIPE CONFORMING TO ASTM D-3034 SDR 35, WITH GEOTEXTILE DRAIN SLEEVE MEETING THE REQUIREMENTS OF ODOT 712.09, TYPE A, AND WITH NO. 8 STONE OR GRAVEL AGGREGATE.

UNDERGROUND INSTALLATIONS - GENERAL

1. THE VARIOUS UNDERGROUND INSTALLATION ITEMS SHALL INCLUDE, BUT NOT BE LIMITED TO, ALL EXCAVATION, MATERIAL, LABOR, BEDDING, BACKFILL, COMPACTION, EQUIPMENT, UTILITY PROTECTION, MAINTENANCE OF ROADWAYS AND DRIVES UNTIL FINAL REPLACEMENT, PUMPING AND/OR DEWATERING, CONSTRUCTION AND REMOVAL OF ALL NECESSARY TRENCH PROTECTION AND ALL OTHER INCIDENTAL ITEMS NECESSARY TO INSTALL SUCH UTILITY. THE CONTRACTOR IS TO TOTALLY FAMILIARIZE HIMSELF WITH THE GROUND CONDITIONS THAT NOW DO OR MAY EXIST DURING THE CONSTRUCTION SO AS NOT TO ADVERSELY AFFECT THE INTEGRITY OF ANY UTILITY INSTALLATION OR STRUCTURE ON THE CONSTRUCTION SITE OR ADJACENT PROPERTIES.

2. ALL SANITARY SEWER AND STORM SEWER CONSTRUCTION SHALL CONFORM WITH ODOT ITEM 611.

3. ANY UNSUITABLE MATERIAL, MATERIAL NOT APPROVED BY THE ENGINEER FOR BACKFILL AND MATERIAL IN EXCESS OF THAT REQUIRED FOR BACKFILLING SHALL BE DISPOSED OF BY THE CONTRACTOR ON THE SITE.

4. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS TO PREVENT ANY CAVING OR SETTLING OF EXCAVATION OR TRENCH WALLS WHICH COULD ENDANGER THE SAFETY OF ANY PERSON ENGAGED IN THE WORK OR IN ANY WAY DAMAGE THE UNDERGROUND INSTALLATIONS OF ADJACENT UTILITY OR PROPERTY; OR DIMINISH THE TRENCH WIDTH NECESSARY FOR THE PROPER CONSTRUCTION OF THE UNDERGROUND INSTALLATION OR OTHERWISE INJURE OR DELAY THE WORK. THE TYPE AND AMOUNT OF SUCH PROTECTION, SUCH AS TRENCH BOXES, SHEETING, SHORING, OR BRACING SHALL BE CONSISTENT WITH THE DEPTH AND WIDTH OF EXCAVATION, THE COMPOSITION AND WATER CONTENT OF THE SOIL IN THE PROXIMITY OF STRUCTURES OR OTHER UTILITIES, THE VIBRATION FROM EQUIPMENT AND THE SPOIL PLACEMENT, AND SHALL BE IN ACCORDANCE WITH THE LATEST OSHA REGULATIONS.

5. IN ORDER TO REDUCE GROUND WATER SEEPAGE AND PROVIDE A STABLE TRENCH IT MAY BE NECESSARY TO DEWATER PRIOR TO EXCAVATION OF THE SEWER TRENCH AND/OR PROVIDE TEMPORARY SUMPS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO ADJACENT STRUCTURES, PAVEMENTS, OR UTILITIES, OR LOSS OF PRIVATE WELL WATER RESULTING FROM DEWATERING, LOSS OF GROUND, HEAVE, TRENCH CONSTRUCTION, AND ANY OTHER CONSTRUCTION METHODS. THE CONTRACTOR SHALL PROTECT ALL EXISTING SEWERS AND UTILITIES THAT THE PROPOSED INSTALLATION CROSSES BY COMPACTING THE BACKFILL UNDER SUCH EXISTING FACILITIES OR SHALL PROTECT THE EXISTING FACILITY IN A MANNER AS APPROVED BY THE ENGINEER. IF SHEETING IS USED, IT MAY BE NECESSARY TO DRIVE THE SHEETING SEVERAL FEET BELOW THE BOTTOM OF THE PIPE. WHEN USING MOVABLE TRENCH SUPPORTS OR SHEETING, CARE MUST BE EXERCISED SO AS NOT TO DISTURB THE PIPE LOCATION, JOINTING OR BEDDING MATERIAL. IF STEEL SHEETING IS USED IT SHALL BE HELD IN PLACE BY LONGITUDINAL BEAMS AND CROSS BRACES OR STRUTS AS REQUIRED TO RESTRAIN THE TOP OF THE SHEETING. IF TIMBER SHEETING AND BRACING IS USED, IT MUST BE OF GOOD QUALITY AND OF HARDWOOD CONSTRUCTION. AFTER THE PIPE HAS BEEN INSTALLED AND THE BALANCE OF THE BEDDING MATERIAL HAS BEEN PLACED OVER THE PIPE, THE REMOVAL OF ANY TRENCH PROTECTION SHALL BE CAREFULLY CONTROLLED. THE CONTRACTOR SHALL DEMONSTRATE THAT THE REMOVAL OF THE TRENCH PROTECTION WILL NOT ADVERSELY AFFECT THE PIPE LOCATION AND BEDDING. IF SHEETING CANNOT BE REMOVED WITHOUT ADVERSELY AFFECTING THE PIPE AND BEDDING LOCATION, THE ENGINEER MAY ORDER THE SHEETING CUT OFF AT SOME POINT, AT LEAST ONE FOOT ABOVE THE TOP OF THE PIPE AND LEFT IN PLACE.

6. PRIOR TO ANY CONNECTION INTO AN EXISTING SEWER MANHOLE OR CONDUIT THE CONTRACTOR SHALL TAKE SUCH MEASURES AS NECESSARY, "AS APPROVED BY THE ENGINEER", (I.E. TEMPORARY PLUGS, SAND BAGS, ETC.) DURING THE CDURSE OF THE CONSTRUCTION OF THE PROPOSED SEWERS, TO GUARD AGAINST ANY DRAINAGE FROM ENTERING THE EXISTING SYSTEM AND POSSIBLY CONTAMINATING SUCH SYSTEM WITH SILT.

7. WHERE THE PROPOSED IMPROVEMENTS CROSS EXISTING OR PROPOSED PAVEMENTS, INCLUDING A POINT FIVE (5) FEET BEYOND SUCH CROSSINGS, OR WHERE THE CONSTRUCTION METHODS USED BY THE CONTRACTOR RESULT IN THE TRENCH WALL BEING LESS THAN 3 FEET FROM THE EDGE OF THE PAVEMENT, THE ENTIRE TRENCH BACKFILL SHALL BE COMPACTED IN LAYERS NOT TO EXCEED 8 INCHES IN THICKNESS WITH MECHANICAL TAMPERS MEETING NINETY-EIGHT (98) PERCENT OF MAXIMUM LABORATORY DRY WEIGHT.

8. THE LINE AND GRADE OF SEWER MAINS SHALL BE CONTROLLED DURING THE SEWER CONSTRUCTION BY USE OF AN APPROVED LASER DEVICE.

9. AT ALL STORM SEWER MAIN AND SANITARY SEWER MAIN INTERSECTIONS (CROSSINGS) WHEN PIPE CLEARANCE IS LESS THAN 18", THE LOWER PIPE SHALL BE ENCASED AND THE UPPER PIPE SHALL BE MONOLITHICALLY CRADLED IN 2500 PSI CONCRETE FOR THE WIDTH OF THE TRENCH. AT PIPE CROSSINGS GREATER THEN 18" THE BACKFILL BELOW THE UPPER PIPE SHALL BE COMPACTED IN PLACE TO THE SATISFACTION OF THE ENGINEER.

STORM SEWERS

1. STORM SEWER CONDUIT SHALL CONFORM TO THE FOLLOWING REQUIREMENTS: STORM CONDUIT BETWEEN STREET BASINS AND CONNECTING TO MANHOLE SHALL BE (A.) ONLY IF COVER IS LESS THAN OR EQUAL TO ONE FOOT MEASURED FROM THE TOP OF THE PIPE TO THE BOTTOM OF THE SUBGRADE, OR MAY BE (E.) IF COVER IS GREATER THAN ONE FOOT MEASURED FROM THE TOP OF THE PIPE TO THE BOTTOM OF THE SUBGRADE. ALL FOOTING DRAIN CONNECTIONS SHALL BE (B.) ONLY.

   A. REINFORCED CONCRETE PIPE ASTM C-76, "B" OR "C" WALL, 8 FOOT LENGTHS, WITH AN "O" RING CONFINED GASKET JOINT PER ASTM C-443: (A) 12" & LARGER DIA. CLASS IV.

   B. POLYVINYL CHLORIDE (PVC) ASTM D-3034 (SDR 35) (ODOT 707.45) WITH GASKET MATERIAL CONFORMING TO ASTM F-477 AND JOINTS PER ASTM D-3212 OR SOLVENT CEMENT JOINTS PER ASTM D-2564.

   C. PERMA-LOC (PVC) AASHTO SPECIFICATION IN M-304M (ODOT 707.43) WITH INTEGRAL BELL GASKET JOINTS IN ACCORDANCE WITH ASTM D-3212 AND INSTALLED PER THE MANUFACTURER'S RECOMMENDATIONS.

   D. ULTRA-RIB (PVC) ASTM F 794 (ODOT 707.43) WITH INTEGRAL BELL AND SPIGOT JOINT IN ACCORDANCE WITH ASTM D-3212 AND INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.

   E. SMOOTH INTERIOR, CORRUGATED, HIGH DENSITY POLYETHYLENE PIPE (HDPE) CONFORMING TO AASHTO SPECIFICATIONS M252 TYPE S AND M-294 TYPE S, (OFOT 707.33) ADS N-12, HANCOR HI-Q, OR APPROVED EQUAL. THE JOINTS SHALL BE SILT-TIGHT AND THE GASKETS SHALL MEET THE REQUIREMENTS OF ASTM F477 (NOT PRESSURE RATED), INSTALLED IN ACCORDANCE WITH ASTM D-3212 AND MANUFACTURER'S RECOMMENDATIONS.

2. OTHER OPTIONAL MATERIALS MAY BE USED WHEN APPROVED BY THE CITY ENGINEER.

3. UNDERDRAINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH ODOT ITEM 605. CONDUIT SHALL BE 6" DIAMETER PVC TYPE PS-46 PIPE CONFORMING TO ASTM F-758, OR 6" DIAMETER PSM POLYVINYLCHLORIDE (PVC) PIPE CONFORMING TO ASTM D-3034 SDR 35, WITH A GEOTEXTILE SLEEVE MEETING THE REQUIREMENTS OF ODOT ITEM 712.09, TYPE A, AND WITH THE GRANULAR MATERIAL BEING NO. 57 AGGREGATE (NO SLAG)

4. ROOF DRAINS ARE TO BE DISCHARGED ONTO SPLASH BLOCKS. NO CONNECTION TO STORM SEWER.

5. AT LEAST 60 DAYS PRIOR TO THE END OF THE PERIOD FOR WHICH IMPROVEMENTS ARE COVERED BY MAINTENANCE BONDS, THE DEVELOPER SHALL CLEAN AND VIDEO TAPE THE STORM SEWER, SANITARY SEWER AND MANHOLES, OR CAUSE THIS TO BE DONE BY A SUBCONTRACTOR OR BUILDER(S) WHO THE DEVELOPER HOLDS RESPONSIBLE PRIOR TO RELEASE OF THE MAINTENANCE BONDS COVERING THE IMPROVEMENTS. TWO (2) COPIES OF THE VIDEO TAPE(S) AND A WRITTEN REPORT OF THE RESULTS SHALL BE FURNISHED TO THE DEVELOPER AND THE CITY ENGINEER, BOTH THE TAPING AND THE WRITTEN REPORT SHALL BE DONE TO THE SATISFACTION OF THE DEVELOPER AND THE CITY ENGINEER OR THIER DESIGNEES. ANY AND ALL PROBLEMS DISCOVERED SHALL BE REMEDIATED WITHIN TEN (10) WORKING DAYS BY THE DEVELOPER OR BY THE PARTY THE DEVELOPER SHALL CAUSE TO REMEDIATE THE PROBLEMS, IF ANY

6. ALL MAIN LINE STORM SEWERS SHALL BE CLEANED AND VIDEOTAPED IMMEDIATELY AFTER CONSTRUCTION AND THE VIDEOTAPE SUBMITTED TO THE CITY ENGINEER FOR REVIEW AND APPROVAL. ALL DEFECTS SHALL BE PROMPTLY REPAIRED BY THE CONTRACTOR.

OCTOBER 1, 2008 - REV. 5/11/09, 9/29/09, 12/7/09, 8/18/16

5/9/17, 6/28/17, 6/5/20

REVISION	DATE:	BY:	DESCRIPTION:
	11/17/2023	CLH	ISSUE TO CITY FOR ENGINEERING REVIEW
	12/19/2023	CLH	ISSUE TO OEPA FOR REVIEW
	02/27/2024	CLH	REVISED CITY COMMENTS
	04/23/2024	CLH	REVISED PER CITY COMMENTS
	05/24/2024	CLH	REVISED PER CITY COMMENTS

DRAWN BY: SJM

CHECKED BY: CLH

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PREPARED FOR:

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23550 CENTER RIDGE ROAD
WESTLAKE, OH 44145

HAMPTON PLACE SUBDIVISION - PHASE 8
GENERAL NOTES
CITY OF NORTH RIDGEVILLE, COUNTY OF LORAIN, STATE OF OHIO

SHEET 4 OF 52

JOB NO. 20-5445-8

J:\20\5445-8 Hampton Place PH-8\DRAWINGS\Improvement Plans\(04-06) General Notes.dwg, Plotted: May 29, 2024 - 8:02am

CITY OF NORTH RIDGEVILLE
STANDARD GENERAL NOTES

SANITARY SEWERS

1. ROOF DRAINS, FOUNDATION DRAINS, AND OTHER CLEAN WATER CONNECTIONS TO THE SANITARY SEWER ARE PROHIBITED.
2. THE SANITARY SEWER SHALL PASS A LOW PRESSURE AIR TEST AND A 5% DEFLECTION TEST. THESE TESTS SHALL BE CONDUCTED BY A COMPETENT TESTER, PREFERABLY AN INDEPENDENT TESTING COMPANY.
   A. DEFLECTION TEST:

      IF PVC PIPE IS USED, THE DEFLECTION TEST WILL BE RUN NOT LESS THAN 30 DAYS NOR MORE THAN 45 DAYS AFTER THE FINAL AND FULL BACKFILL HAS BEEN PLACED. THE TEST IS REQUIRED ON ALL PVC PIPE. THE CONTRACTOR SHALL SUPPLY ALL NECESSARY EQUIPMENT FOR THE DEFLECTION TESTING. ALL EQUIPMENT SHALL BE APPROVED BY THE CITY OF NORTH RIDGEVILLE PRIOR TO THE START OF TESTING. WHERE POSSIBLE, ELECTRONIC EQUIPMENT SHALL BE USED TO MEASURE AND RECORD THE DELFECTION IN THE FLEXIBLE PIPE. NO PIPE SHALL EXCEED A DEFLECTION OF FIVE PERCENT. IF SUCH EQUIPMENT IS NOT AVAILABLE, THE DEFLECTION TEST CAN BE RUN BY THE USE OF MANDRELS, HAVING A DIAMETER EQUAL TO NINETY-FIVE (95) PERCENT OF THE INSIDE DIAMETER OF THE PIPE, PULLED THROUGH THE SEWER WITHOUT MECHANICAL PULLING DEVICES. MANDRELS SHALL BE CONSTRUCTED WITH AT LEAST NINE EVENLY SPACED ARMS OR PRONGS. A METAL PROVING RING SHALL BE PROVIDED TO VERIFY THE ACCURACY OF THE MANDREL TO THE CITY ENGINEER. THE LENGTH OF THE MANDREL SHALL BE EIGHT INCHES FOR EIGHT INCH PIPE, TEN INCHES FOR TEN AND TWELVE INCH PIPE. IF ANY SECTION OF CONDUIT EXCEEDS THE DEFLECTION OF FIVE PERCENT, THE NECESSARY CORRECTIONS SHALL BE MADE. CONDUIT WHICH HAS DEFLECTED MORE THAN FIVE PERCENT MUST BE CORRECTED TO THE SATISFACTION OF THE CITY ENGINEER BY THE CONTRACTOR. THE PIPE SHALL BE MEASURED IN COMPLIANCE WITH ASTM D2122.

   B. THE LEAKAGE, EXFILTRATION, OR INFILTRATION SHALL NOT EXCEED 100 GALLONS PER INCH OF PIPE DIAMETER PER MILE PER DAY.
3. THE SANITARY SEWER MAIN AND ITS LATERALS SHALL BE PVC ASTM D3034, WITH GASKETED JOINTS MEETING ASTM D3212 SDR-35, UNLESS DEPTH OF COVER IS 15 FEET OR GREATER THEN USE ASTM D3034 SDR-26.
4. SANITARY MANHOLES SHALL BE PRECAST CONCRETE MEETING THE STANDARDS OF THE CITY OF NORTH RIDGEVILLE. THE MANHOLE SHALL BE FULLY INSPECTED AROUND ITS EXTERIOR BEFORE BACKFILLING. ANY SUSPECTED WEAK SPOTS, CRACKS, ETC. THAT MAY CAUSE A LEAK IN THE FUTURE SHALL BE PATCHED, SEALED, ETC. WITH WATERPROOFING MATERIALS. PARTICULAR ATTENTION SHALL BE PAID TO THE BARREL JOINTS, STEP LOCATIONS, LIFTING HOLES, AND THE JOINT BETWEEN THE GRADE RINGS AND THE CASTING. ALL MANHOLES SHALL BE VACUUM TESTED PER ASTM-C1244.
5. GRADE RINGS SHALL BE USED TO BRING ALL CASTING TO GRADE, MAXIMUM 11 INCHES.
6. IF THE CASTING IS DISTURBED AFTER IT IS INSTALLED IT SHALL BE COMPLETELY REMOVED, CLEANED, AND THEN REINSTALLED.
7. THE CONTRACTOR SHALL MARK ALL LATERAL LOCATIONS IN THE FIELD WITH A CONTINUOUS 4" X 4" WOODEN STAKE FROM INVERT TO 2'-6" ABOVE GRADE, PAINTED ORANGE OR RED.
8. "LOW-PRESSURE" AIR TESTING FOR PLASTIC PIPE SHALL BE PER ASTM-F1417.
9. ALL MAINLINE SANITARY SEWER SHALL BE VIDEO TAPED PER CITY ORDINANCE.
10. HORIZONTAL AND VERTICAL SEPARATION BETWEEN WATERLINE, STORM SEWERS, AND SANITARY SEWERS SHALL BE MAINTAINED AS FOLLOWS:
    A. A MINIMUM 10-FOOT HORIZONTAL SEPARATION (MEASURED OUT-TO-OUT CLEAR) BETWEEN THE PROPOSED WATERLINE AND THE STORM SEWER WILL BE MAINTAINED.
    B. A MINIMUM 10-FOOT HORIZONTAL SEPARATION (MEASURED OUT-TO-OUT CLEAR) BETWEEN THE PROPOSED WATERLINE AND THE SANITARY SEWER WILL BE MAINTAINED.
    C. A MINIMUM 18-INCH VERTICAL CLEARANCE (MEASURED OUT-TO-OUT CLEAR) BETWEEN THE PROPOSED WATERLINE AND THE SANITARY SEWER WILL BE MAINTAINED.
    D. A MINIMUM 18-INCH VERTICAL CLEARANCE (MEASURED OUT-TO-OUT CLEAR) BETWEEN THE PROPOSED WATERLINE AND THE STORM SEWER WILL BE MAINTAINED.
11. THE CONTRACTOR WILL COLOR FILM BOTH SANITARY AND STORM SEWERS TO VERIFY THAT THEY ARE FREE OF DEFECTS AND FOREIGN MATTER AND THAT THEY ARE TO THE PROPER ALIGNMENT PRIOR TO FORMAL ACCEPTANCE BY THE CITY OF NORTH RIDGEVILLE. THE INSPECTION AND TESTING SHALL BE DONE BY AN EXPERIENCED AND CERTIFIED FIRM ENGAGED IN THIS TYPE OF WORK, AS APPROVED BY THE CITY. WRITTEN REPORTS FOR ALL INSPECTION AND TESTING SHALL BE SUBMITTED TO THE OWNER AND THE CITY FOR APPROVAL. ALL SEWERS WILL BE FLUSHED AND HAVE A VCR TELEVISED INSPECTION IN ACCORDANCE WITH THE CITY OF NORTH RIDGEVILLE SPECIFICATIONS AFTER THE COMPLETION OF THE PAVEMENT CONSTRUCTION AND SEEDING OF THE DISTURBED AREAS, BUT PRIOR TO THE ISSUANCE OF BUILDING PERMITS. IF THE INSTALLATION FAILS TO MEET THE REQUIREMENTS OF THE TESTS AND INSPECTION, THE CONTRACTOR SHALL REPAIR OR REPLACE ALL DEFECTS AND RETEST AND RE-FILM THE INSTALLATION. THE CONTRACTOR SHALL NOTIFY THE CITY 48 HOURS BEFORE THE STORM AND SANITARY SEWERS ARE TELEVISED.
12. *ALL BEDDING FOR PROPOSED SANITARY SEWER SHALL BE IN ACCORDANCE WITH ASTM D2321*

WATER SYSTEM

1. THE WATER SYSTEM SHALL BE CONSTRUCTED PER THE CITY OF NORTH RIDGEVILLE STANDARDS & REGULATIONS.
2. THE WATERLINE SHALL BE PVC MEETING THE REQUIREMENTS OF AWWA C900, OR C909, CLASS 150 PIPE CONFORMING TO DR18 OR DUCTILE IRON PIPE , CLASS 52, CEMENT LINED MEETING THE REQUIREMENTS OF ANSI A21.51 AND AWWA C-151.
3. A MINIMUM OF 35 PSI SHALL BE MAINTAINED TO THE CURB STOP DURING NORMAL OPERATING CONDITIONS. BOOSTER PUMPS ARE NOT PERMITTED ON SERVICE CONNECTIONS.
4. ALL FITTINGS FOR THE WATER MAIN SHALL BE RESTRAINED JOINT TYPE (MEGA-LUG) AND SHALL BE DUCTILE IRON MEETING AWWA C-153.
5. ALL BENDS OR TEES ON THE MAIN SHALL BE RESTRAINED JOINT TYPE (MEGA-LUG) AND BLOCKED WITH WOOD.
6. ALL DUCTILE IRON PIPE, CAST IRON FITTINGS AND HYDRANTS SHALL BE POLYWRAPPED ACCORDING TO AWWA C-105.. RESTRAIN TWO PIPE JOINTS EITHER SIDE OF TEE OR ELBOW IN ADDITION TO THRUST RESTRAINT.
7. ALL FITTINGS SHALL BE GIVEN A CEMENT MORTAR LINING AT THE POINT OF MANUFACTURE. THE LINING SHALL CONFORM TO ANSI A21.4, AWWA C-104 AND ALL SUBSEQUENT AMENDMENTS.
8. ALL FITTINGS SHALL BE DESIGNED FOR A WORKING PRESSURE OF NOT LESS THAN 150 PSI.
9. ALL VALVES AND HYDRANT FITTINGS MUST HAVE STAINLESS STEEL NUTS AND BOLTS. T-BOLTS AND NUTS FOR ALL MECHANICAL JOINTS MUST HAVE A BITUMASTIC COATING.
10. ALL PIPE SHALL BE GIVEN A CEMENT MORTAR LINING AT THE POINT OF MANUFACTURE. THE MORTAR LINING SHALL NOT BE LESS THAN 1/16 INCH IN THICKNESS AND CONFORM TO ANSI A21.4, AWWA C-104 AND ALL SUBSEQUENT AMENDMENTS.
11. ALL JOINTS SHALL BE MECHANICAL OR PUSH-ON TYPE. MECHANICAL JOINTS SHALL MEET THE REQUIREMENTS OF ANSI A21.11, AWWA C-111 AND ALL SUBSEQUENT AMENDMENTS. PUSH-ON JOINTS SHALL BE MADE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE PIPE MANUFACTURER.
12. ALL HYDRANTS SHALL HAVE MECHANICAL TYPE JOINTS.
13. WHENEVER CHANGES IN LINE AND GRADE OF THE MAIN AS SHOWN ON THE DRAWINGS ARE NOT STANDARD FITTING DEFLECTIONS, THE CONTRACTOR WILL BE PERMITTED TO USE AN APPROVED COMBINATION OF STANDARD FITTINGS AND SMALL DEFLECTION OF THREE DEGREES PER JOINT IN THE ADJOINING LENGTHS OF PIPE (NOT TO EXCEED THE MANUFACTURER'S SPECIFICATIONS).
14. CLOSURE PIECES SHALL BE ACCURATELY MEASURED AND CUT, IN THE FIELD, AND INSTALLED USING SOLID TYPE LONG PATTERN SLEEVES AS SHOWN OR AS REQUIRED.

GATE VALVES

1. VALVES SHALL CONFORM IN ALL RESPECTS WITH AWWA C-500 OR C-509 AND WITH THE CITY OF NORTH RIDGEVILLE ENGINEERING DEPARTMENT SPECIFICATIONS.
2. ALL GATE VALVES THREE INCH AND LARGER SHALL HAVE A NON-RISING STEM, SHALL OPEN BY TURNING TO THE RIGHT, AND SHALL BE OPERATED BY A TWO-INCH SQUARE OPERATING NUT. NUTS SHALL HAVE AN ARROW AND THE WORD "OPEN" CAST THEREON TO INDICATE THE DIRECTION OF TURNING TO OPEN THE VALVE.
3. ALL GATE VALVES THREE-INCH TO 16 INCH IN SIZE SHALL BE OF RESILIENT WEDGE SEATED TYPE. THE VALVES SHALL HAVE RUBBER "O" RING PACKING SEALS AND MECHANICAL JOINT ENDS UNLESS OTHERWISE SPECIFIED OR APPROVED BY THE CITY ENGINEER. IF THE TOP OF THE OPERATING NUT IS MORE THAN 36 INCHES BELOW FINISHED GRADE, AN EXTENSION STEM SHALL BE PROVIDED TO PLACE THE OPERATING WRENCH NUT BETWEEN 24 AND 36 INCHES BELOW THE SURFACE.
4. ALL 20 AND 24 INCH GATE VALVES SHALL BE PROVIDED WITH A FOUR INCH BYPASS VALVE AND ALL 30 INCH TO 48 INCH VALVES INCLUSIVE SHALL BE PROVIDED WITH A SIX INCH BYPASS VALVE LOCATED BELOW THE CENTER OF THE VALVES.
5. ALL GATE VALVES 18 INCH AND UNDER SHALL BE CONSTRUCTED TO WORK VERTICALLY. GATE VALVES 20 INCH AND LARGER IN SIZE SHALL BE CONSTRUCTED TO WORK HORIZONTALLY.
6. ALL NUTS AND BOLTS SHALL BE STAINLESS STEEL.

BUTTERFLY VALVES

1. IN LIEU OF GATE VALVES, BUTTERFLY VALVES MAY BE USED ON 12 INCH AND LARGER MAINS.
2. ALL BUTTERFLY VALVES SHALL BE OF RUBBER-SEATED TIGHT-CLOSING TYPE. THEY SHALL MEET OR EXCEED PERFORMANCE REQUIREMENTS FOR WATER APPLICATIONS OF APPLICABLE RECOGNIZED STANDARDS SUCH AS AWWA C-504. ALL VALVES SHALL BE MUELLER BUTTERFLY VALVES OR AN APPROVED EQUAL.
3. BOTH VALVE ENDS SHALL BE MECHANICAL JOINT PER AWWA C-111. ACCESSORIES (BOLTS, GLANDS AND BASKETS) SHALL BE SUPPLIED BY THE VALVE MANUFACTURER.
4. ALL VALVES MUST USE FULL AWWA C-504, CLASS 150B VALVE SHAFT DIAMETER AND FULL CLASS 150B UNDERGROUND-SERVICE-OPERATOR TORQUE RATING THROUGHOUT ENTIRE TRAVEL, TO PROVIDE CAPABILITY FOR OPERATION IN EMERGENCY SERVICE.
5. VALVE BODY SHALL BE HIGH-STRENGTH CAST IRON ASTM A126, CLASS B WITH 18-8 TYPE 304 STAINLESS STEEL BODY SEAT. VALVE VANE SHALL BE HIGH STRENGTH CAST IRON ASTM A48 CLASS 40, HAVING RUBBER SEAT MECHANICALLY SECURED WITH AN INTEGRAL 18-8 STAINLESS STEEL CLAMP RING AND 18-8 STAINLESS STEEL SELF-LOCKING SCREWS.
6. RUBBER SEAT SHALL BE A FULL-CIRCLE 360 DREGEE SEAT NOT PENETRATED BY THE VALVE SHAFT. VALVE SHAFT SHALL BE ONE PIECE, EXTENDING FULL SIZE THROUGH THE ENTIRE SHAFT AND OPERATOR WITH NO NECK-DOWN, KEYWAYS OR HOLES TO WEAKEN IT. FOR 14 INCH AND LARGER, VALVE SHAFTS SHALL BE 18-8 STAINLESS STEEL STUB SHAFT DESIGN KEYED TO THE VANE WITH STAINLESS STEEL TAPER PINS.
7. VALVE OPERATOR SHALL BE OF THE TRAVELING-NUT TYPE, SEALED, GASKETED, AND LUBRICATED FOR UNDERGROUND SERVICE. IT SHALL BE CAPABLE OF WITHSTANDING AN OVERLOAD INPUT TORQUE OF 450 FT-LBS AT FULL-OPEN OR CLOSED POSITION WITHOUT DAMAGE TO THE VALVE OR VALVE OPERATOR. IT SHALL BE DESIGNED TO RESIST SUBMERGENCE IN WATER TO 25 FEET HEAD PRESSURE FOR UP TO 72 HOURS.
8. THE VALVE SHALL BE CAPABLE OF EASY CLOSURE BY ONE MAN USING A STANDARD VALVE KEY, EVEN UNDER EMERGENCY LINE-BREAK CONDITIONS AS SEVERE AS THOSE THAT WOULD CAUSE A VALVE MAXIMUM OPERATING TORQUE REQUIREMENT OF AS MUCH AS TWO TIMES AWWA CLASS 150B.
9. ALL VALVES SHALL BE TESTED, BUBBLE-TIGHT AIR-UNDER-WATER, BY THE MANUFACTURER AS FOLLOWS:

4" THROUGH 12"	175 PSI
14" AND UP	150 PSI

IN ADDITION A 300 PSI HYDROSTATIC TEST SHALL BE GIVEN TO THE ASSEMBLED VALVE. THIS 300 PSI PRESSURE SHALL ALSO BE APPLIED AGAINST THE FULLY CLOSED VANE OF EACH VALVE TO PROVE STRUCTURAL SOUNDNESS AND ASSURE COMPATIBILITY WITH FIELD LINE TEST PROCEDURES.

HYDROSTATIC TESTING

1. ALL WATER MAINS SHALL BE INSTALLED AND PRESSURE TESTED ACCORDING TO AWWA C-605, LATEST EDITION.
2. TESTING PLUGS OR CAPS SHALL BE FURNISHED AND INSTALLED FOR TESTING COMPLETEO SECTIONS OF PIPE AND FITTINGS.
3. BEFORE THE TEST PRESSURE IS APPLIED, CARE SHALL BE TAKEN TO INSURE THE REMOVAL OF AIR IN THE LINE AT THE HIGH POINTS AND TO SEE THAT ALL CAPS, PLUGS AND EXPOSED PORTIONS OF THE LINE ARE SECURELY BRACED.
4. THE CONTRACTOR SHALL SUPPLY ALL NECESSARY EQUIPMENT, GUAGES, TOOLS, AND LABOR TO PROPERLY CONDUCT THE TEST. ALL TESTING SHALL BE DONE UNDER THE DIRECTION OF THE CITY OF NORTH RIDGEVILLE ENGINEERING DEPARTMENT.
5. WATER FOR FILLING THE TEST SECTIONS WILL BE PROVIDED BY THE CITY OF NORTH RIDGEVILLE.
6. IF THE LEAKAGE TEST EXCEEDS THE MAXIMUM ALLOWED, THE CONTRACTOR SHALL LOCATE AND REPAIR THE LEAKS AND AGAIN TEST THE PIPE. THIS PROCESS SHALL BE CONTINUED UNTIL THE LEAKAGE IS WITHIN THE ACCEPTABLE LIMITS.

DISINFECTING MAINS

1. AFTER HYDROSTATIC TESTING, THE NEW LINE SHALL BE THOROUGHLY FLUSHED IN ACCORDANCE WITH AWWA C-651. THE MAIN SHALL BE FLUSHED THROUGH THE HYDRANTS, BLOWOFFS OR BY SOME OTHER APPROVED MEANS.
2. CHLORINE SHALL BE ADDED AT SUCH RATES AS TO GIVE A MINIMUM CHLORINE DOSAGE OF 50 PARTS PER MILLION AVAILABLE CHLORINE.
3. CHLORINE USED AS A DISINFECTING AGENT MAY BE EITHER LIQUID CHLORINE OR AN ANHYDROUS CALCIUM HYPOCHLORITE COMPOUND SUCH AS "HTH" OR AN APPROVED EQUAL. LIQUID CHLORINE SHALL BE APPLIED THROUGH A SUITABLE CHLORINE FEEDING MACHINE AND INJECTION NOZZLE. ANHYDROUS CALCIUM HYPOCHLORITE SHALL BE FED AS A SOLUTION USING A SUITABLE INJECTION PUMP.
4. FOLLOWING THE DISINFECTING PERIOD, THE LINE SHALL BE THOROUGHLY FLUSHED UNTIL THE REPLACEMENT WATER THROUGHOUT THE ENTIRE LENGTH OF THE LINE SHALL UPON TEST, BOTH CHEMICALLY AND BACTERIOLOGICALLY, BE PROVEN EQUAL TO THE QUALITY OF THE WATER IN THE EXISTING SYSTEM.
5. THE CITY OF NORTH RIDGEVILLE SERVICE DEPARTMENT WILL TEST THE WATER. THE CONTRACTOR IS RESPONSIBLE FOR THE TEST ARRANGEMENTS.

CURB CONNECTIONS

1. THE SIZE OF SERVICE CONNECTIONS SHALL BE THREE-QUARTER INCH (3/4") DIAMETER MINIMUM.
2. SERVICE CONNECTIONS SHALL BE K COPPER. ALTERNATIVELY, 200 PSI PLASTIC PIPE APPROVED FOR POTABLE WATER, WITH TRACER WIRE, MAY BE USED PROVIDED THE 50 FEET OF CONNECTION ADJACENT TO THE SERVED STRUCTURE IS K COPPER AND THE STRUCTURE SERVED IS MORE THAN 200 FEET FROM THE ROADWAY RIGHT OF WAY LINE.
3. FOR STRUCTURES GREATER THAN 200 FEET FROM THE CENTERLINE OF THE ROADWAY, A METER VAULT MUST BE PROVIDED NEAR THE RIGHT OF WAY LINE OF THE ROADWAY.

OCTOBER 1, 2008 REVISED 9/29/09, 2/19/10
7/22/14

REVISION	DATE:	BY:	DESCRIPTION:
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	02/27/2024	CLH	REVISED CITY COMMENTS
	04/23/2024	CLH	REVISED PER CITY COMMENTS
	05/24/2024	CLH	REVISED PER CITY COMMENTS

DRAWN BY: SJM
CHECKED BY: CLH

BRAMHALL
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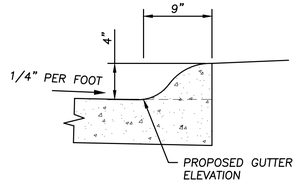
801 MOORE ROAD AVON, OHIO 44011
(440) 934 - 7878 (440) 934 - 7879 FAX

PREPARED FOR:
VALORE PROPERTIES, INC.
23550 CENTER RIDGE ROAD
WESTLAKE, OH 44145

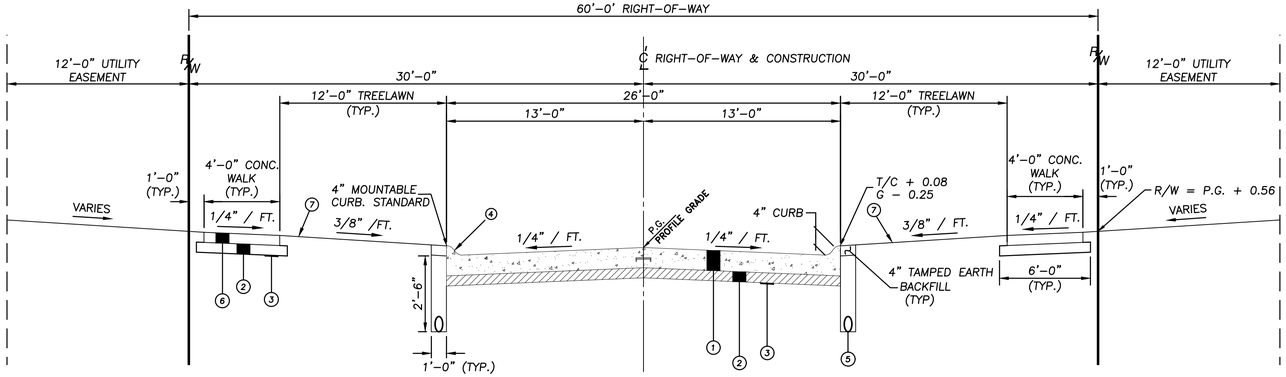
HAMPTON PLACE SUBDIVISION - PHASE 8
GENERAL NOTES
CITY OF NORTH RIDGEVILLE, COUNTY OF LORAIN, STATE OF OHIO

SHEET 5 OF 52
JOB NO. 20-5445-8

J:\20544\5-8 Hampton Place PH-8\DRAWINGS\Improvement Plans\(04-05) General Notes.dwg, Plotted: May 28, 2024 - 8:02am



GUTTER DETAIL
NTS

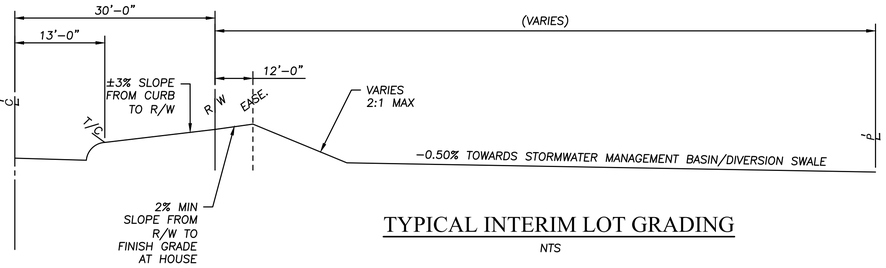


TYPICAL PAVEMENT SECTION
NTS

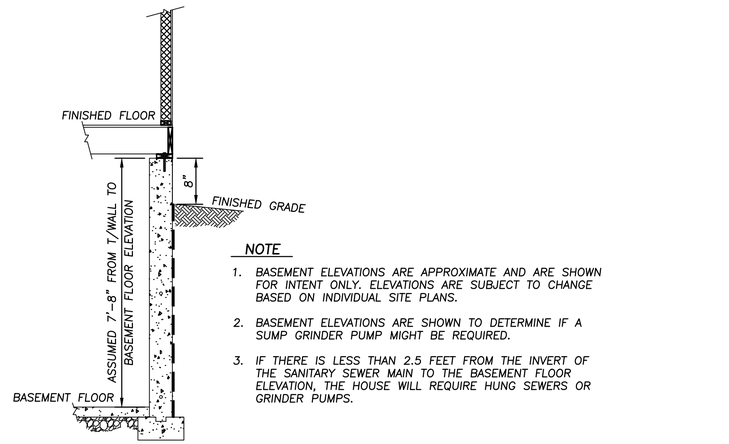
1. 8" ODOT 452, NON-REINFORCED CONCRETE PAVEMENT
2. 4" ODOT 304 LIMESTONE AGGREGATE BASE (LIMESTONE ONLY, NO RECYCLED MATERIAL)
3. ODOT 204 SUBGRADE COMPACTION AND PROOF ROLLING
4. ODOT 609, TYPE 3-A CONCRETE CURB (SEE GUTTER DETAIL ON THIS SHEET)
5. 6" DIAMETER PERFORATED RIGID SMOOTH WALL PVC UNDERDRAIN PIPE PER ODOT 707.41 (PERFORATIONS DOWN) WITH GEOTEXTILE SLEEVE MEETING THE REQUIREMENTS OF ODOT ITEM 712.09M TYPE A, AND WITH GRANULAR MATERIAL BEING NO. 8 AGGREGATE (NO SLAG).
6. ODOT 608, 4" CONCRETE WALK (SEE NOTE 2)
7. ODOT 659, SEEDING & MULCHING
8. ODOT 301, ASPHALT CONCRETE BASE, T=4"
9. ODOT 451, REINFORCED CONCRETE PAVEMENT, T=6"
10. ODOT 304 LIMESTONE AGGREGATE, T=6" (LIMESTONE ONLY, NO RECYCLED MATERIAL)

NOTES

1. A CURING AGENT SHALL BE APPLIED TO ALL CONCRETE PAVEMENT. THE CURING AGENT SHALL BE A COMBINATION CURING AND SEALING COMPOUND AND SHALL BE SILENCURE AS FROM CHEMMASTERS, 300 EDWARDS STREET, MADISON, OHIO, 44057, WWW.CHEMMASTERS.NET OR AN APPROVED EQUAL. THE APPLICATION RATE SHALL BE 200 SQUARE FEET PER GALLON.
2. SIDEWALK AT ALL BLOCKS (AS SHOWN ON PLAN AND PROFILES) SHALL BE THICKENED TO 6" MINIMUM.



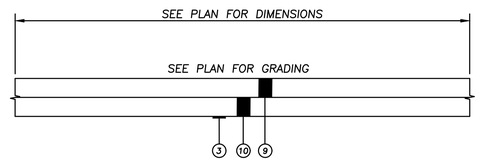
TYPICAL INTERIM LOT GRADING
NTS



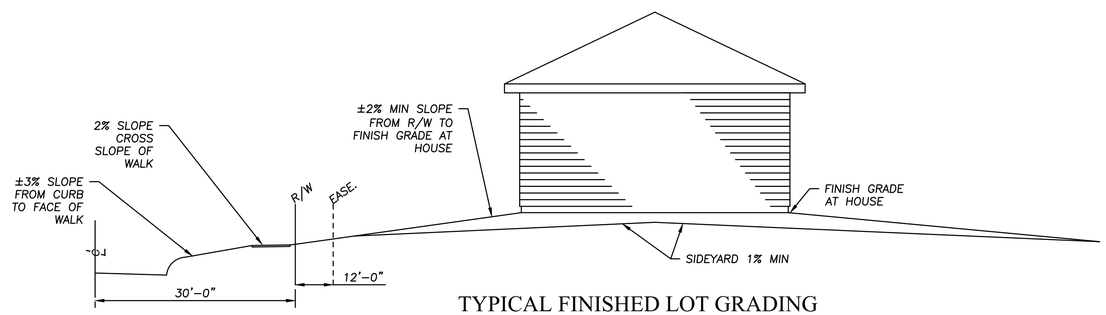
NOTE

1. BASEMENT ELEVATIONS ARE APPROXIMATE AND ARE SHOWN FOR INTENT ONLY. ELEVATIONS ARE SUBJECT TO CHANGE BASED ON INDIVIDUAL SITE PLANS.
2. BASEMENT ELEVATIONS ARE SHOWN TO DETERMINE IF A SUMP GRINDER PUMP MIGHT BE REQUIRED.
3. IF THERE IS LESS THAN 2.5 FEET FROM THE INVERT OF THE SANITARY SEWER MAIN TO THE BASEMENT FLOOR ELEVATION, THE HOUSE WILL REQUIRE HUNG SEWERS OR GRINDER PUMPS.

ASSUMED BASEMENT SECTION
NTS



CONCRETE ACCESS PAD SECTION
N.T.S.



TYPICAL FINISHED LOT GRADING
NTS

REVISION	DATE:	BY:	DESCRIPTION:
	11/17/2023	CLH	ISSUE TO CITY FOR ENGINEERING REVIEW
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	02/27/2024	CLH	REVISED CITY COMMENTS
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DRAWN BY: SJM

CHECKED BY: CLH

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PREPARED FOR:

VALORE PROPERTIES, INC.
23550 CENTER RIDGE ROAD
WESTLAKE, OH 44145

HAMPTON PLACE SUBDIVISION - PHASE 8
TYPICAL SECTIONS
CITY OF NORTH RIDGEVILLE, COUNTY OF LORAIN, STATE OF OHIO

SHEET 6 OF 52

JOB NO. 20-5445-8

J:\2054\45-8 Hampton Place PH-8\DRAWINGS\Improvement Plans\(06) Typical Sections.dwg, Plotted: May 28, 2024 - 8:02am

LOT SUMMARY

EXISTING ZONING CODE
(PER NORTH RIDGEVILLE ZONING SECTION 1282)
WIDTH FOR SINGLE FAMILY: 80-100 FEET (AVERAGE OF 85')
95' MIN. (CORNER LOTS @ BUILDING LINE)
MINIMUM LOT SIZE FOR SINGLE FAMILY: 12,800 SQ. FT.

ALLOWABLE DENSITY: 2.30 UNITS PER ACRE

MAXIMUM NUMBER OF ALLOWABLE LOTS (PER ZONING)
(INCLUDES SUHAIL PHASES 1-8 (ORIGINAL)
AND PHASE 8 (ADDITIONAL): 424 LOTS
~ TOTAL NUMBER OF CLUSTER LOTS (PHASES 1-8 (ORIGINAL)
(45% OF MAX NUMBER)(PER SUHAIL OVERALL PLAN): 174 UNITS
~TOTAL NUMBER OF CLUSTER LOTS (PHASE 8 (ADDITIONAL)
(35% OF MAX NUMBER) 13 UNITS
~ TOTAL NUMBER OF SINGLE FAMILY LOTS
(PHASES 1-8 (ORIGINAL) & PHASE 8 (ADDITIONAL): 237 LOTS
~ TOTAL 424 LOTS

SUMMARY - (PER OVERALL PLAN FOR HAMPTON PLACE PREPARED BY SUHAIL DATED OCTOBER 16, 2020) (PHASE 1-8 (ORIGINAL) & BRAMHALL ENGINEERING & SURVEYING COMPANY PHASE 8 (ADDITIONAL)

PHASE I:
~ TOTAL NUMBER OF SINGLE FAMILY LOTS: 34 LOTS

PHASE II:
~ TOTAL NUMBER OF CLUSTER LOTS: 32 UNITS
~ TOTAL NUMBER OF SINGLE FAMILY LOTS: 07 LOTS

PHASE III:
~TOTAL NUMBER OF CLUSTER LOTS: 19 UNITS
~ TOTAL NUMBER OF SINGLE FAMILY LOTS: 21 LOTS

PHASE IV:
~TOTAL NUMBER OF CLUSTER LOTS: 53 UNITS
~ TOTAL NUMBER OF SINGLE FAMILY LOTS: 25 LOTS

PHASE V:
~TOTAL NUMBER OF CLUSTER LOTS: 29 UNITS
~ TOTAL NUMBER OF SINGLE FAMILY LOTS: 39 LOTS

PHASE VI:
~TOTAL NUMBER OF CLUSTER LOTS: 25 UNITS
~TOTAL NUMBER OF SINGLE FAMILY LOTS: 38 LOTS

PHASE VII:
~TOTAL NUMBER OF CLUSTER LOTS: 18 UNITS
~TOTAL NUMBER OF SINGLE FAMILY LOTS 24 LOTS

PHASE VIII: (ORIGINAL)
~TOTAL NUMBER OF CLUSTER LOTS: 0 UNITS
~TOTAL NUMBER OF SINGLE FAMILY LOTS 20 LOTS

PHASE VIII: (ADDITIONAL)
~TOTAL NUMBER OF CLUSTER LOTS: 11 UNITS
~TOTAL NUMBER OF SINGLE FAMILY LOTS 24 LOTS

HAMPTON PLACE SUBDIVISION PHASES 1-8 PROVIDED LOTS
~TOTAL NUMBER OF CLUSTER LOTS: 187 UNITS
~TOTAL NUMBER OF SINGLE FAMILY LOTS 232 LOTS
~TOTAL 419 LOTS

LEGEND

WETLAND AREAS TO BE MITIGATED BY OTHERS

WETLAND AREAS W-A, W-B, & W-C (PER WETLAND DELINEATION PREPARED BY FLICKINGER GEOSERVICES GROUP DATED 07/17/2023) (HAMPTON SE) & 01/19/2023) (MILLER PROPERTY)

GRAPHIC SCALE
0 120
60 240
(IN FEET)
SCALE: 1" = 120'

LOT SUMMARY

PHASE VIII:
~ TOTAL NUMBER OF CLUSTER LOTS: 11 UNITS
~ TOTAL NUMBER OF SINGLE FAMILY LOTS: 44 LOTS

EXISTING ZONING CODE
(PER NORTH RIDGEVILLE ZONING SECTION 1282)
WIDTH FOR SINGLE FAMILY: 80-100 FEET (AVERAGE OF 85')
95' MIN. (CORNER LOTS @ BUILDING LINE)
MINIMUM LOT SIZE FOR SINGLE FAMILY: 12,800 SQ. FT.

PHASE 8 BREAKDOWN

PLAN ACREAGE: 28.41 ACRES

FRONT YARD SETBACK:
~ SINGLE FAMILY: 30-40 FEET (AVERAGE OF 35')
~CLUSTER LOTS: 22 FEET FROM BACK OF WALK
REAR YARD SETBACK:
~ SINGLE FAMILY: 30 FEET MIN.
SIDE YARD:
~MINIMUM OF 5' SETBACK, SHOWING 7.5' SETBACK PER NEEDING TO BE A MINIMUM 15' BUILDING SEPARATION FROM ADJACENT DWELLING
~35 FEET IF ABUTTING SINGLE FAMILY AREA
APPROXIMATE ROADWAY LENGTH: 2,550 L.F.

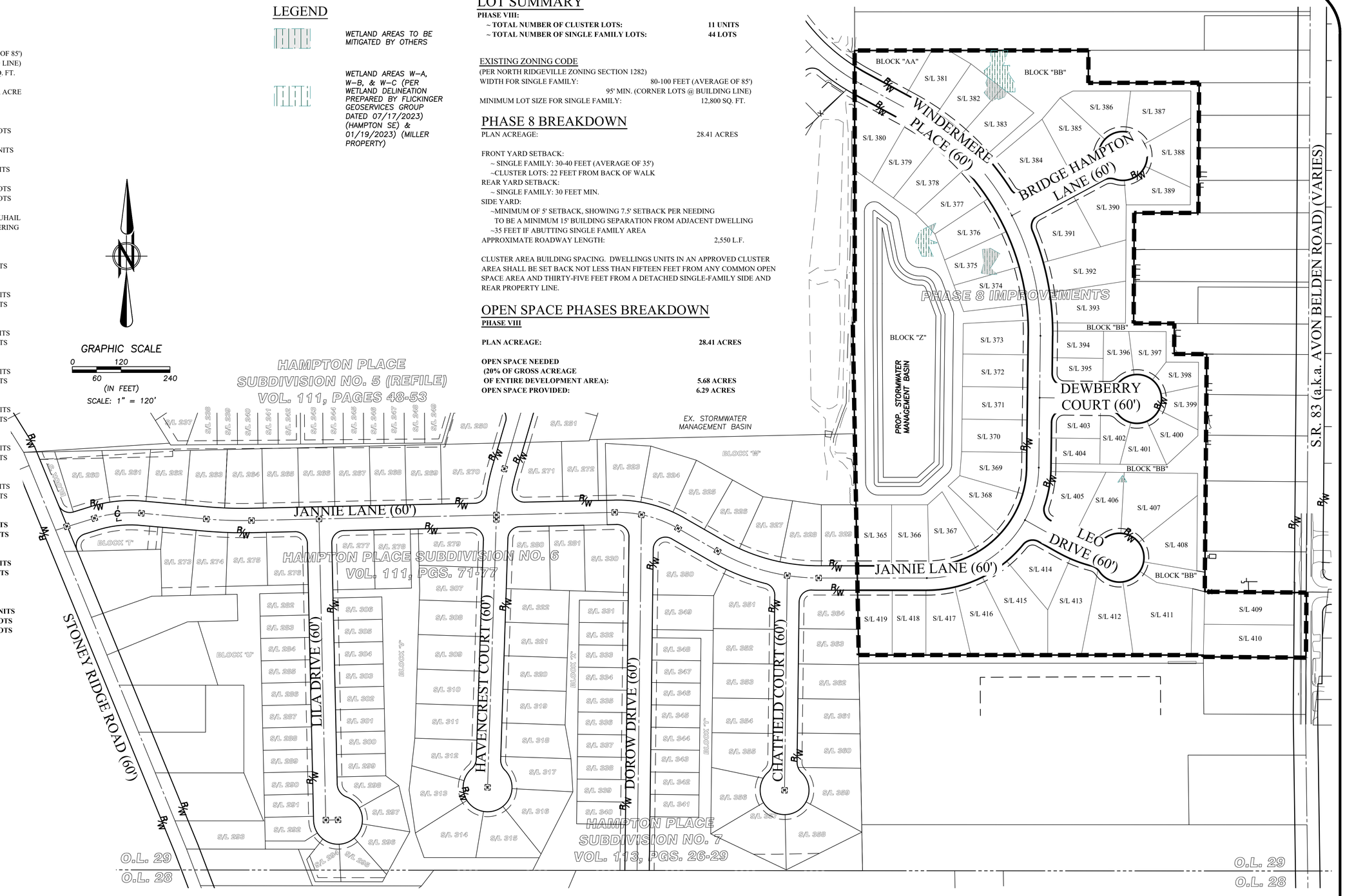
CLUSTER AREA BUILDING SPACING. DWELLINGS UNITS IN AN APPROVED CLUSTER AREA SHALL BE SET BACK NOT LESS THAN FIFTEEN FEET FROM ANY COMMON OPEN SPACE AREA AND THIRTY-FIVE FEET FROM A DETACHED SINGLE-FAMILY SIDE AND REAR PROPERTY LINE.

OPEN SPACE PHASES BREAKDOWN

PHASE VIII

PLAN ACREAGE: 28.41 ACRES

OPEN SPACE NEEDED
(20% OF GROSS ACREAGE
OF ENTIRE DEVELOPMENT AREA): 5.68 ACRES
OPEN SPACE PROVIDED: 6.29 ACRES



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PREPARED FOR:
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23550 CENTER RIDGE ROAD
WESTLAKE, OH 44145

HAMPTON PLACE SUBDIVISION - PHASE 8 GENERAL PLAN

CITY OF NORTH RIDGEVILLE, COUNTY OF LORAIN, STATE OF OHIO

SHEET 7 OF 52
JOB NO. 20-5445-8

J:\2025445-8 Hampton Place PH-8\DRAWINGS\Improvement Plans\07) General Plan.dwg, Plotted: May 29, 2024 - 8:05am

NOTES:

1. SIDEWALK SHALL BE THICKENED TO 6" MINIMUM.
2. WETLANDS AREAS ARE PER WETLAND DELINEATION PREPARED BY FLICKINGER GEOSERVICES GROUP. SEE SHEET 7 FOR WETLAND HATCH LEGEND.

GRAPHIC SCALE
0 25 50 100
(IN FEET)
SCALE: 1" = 50'

PROPOSED MONUMENT BOX N=632787.20 E=2100070.59 STA. 4+9.29

PROPOSED MONUMENT BOX N=632189.97 E=2100105.61 STA. 3+39.28

PROPOSED MONUMENT BOX N=631799.65 E=2100062.61 STA. 3+53.19

PROP. 12' UTILITY EASEMENT

PROPOSED MONUMENT BOX N=631837.79 E=2099927.32 STA. 2+11.31

STA. 11+9.56 WINDERMERE PLACE = STA. 1+0.00 BRIDGE HAMPTON LANE
PROPOSED MONUMENT BOX N=632640.81 E=2099798.14

STA. 6+50.44 WINDERMERE PLACE = STA. 1+0.00 DEWBERRY COURT
PROPOSED MONUMENT BOX N=632192.98 E=2099866.35

STA. 25+25.08 JANNIE LANE = STA. 3+43.95 WINDERMERE PLACE = STA. 1+0.00 LEO DRIVE
PROPOSED MONUMENT BOX N=631892.24 E=2099830.24

PROPOSED MONUMENT BOX N=632345.25 E=2099868.26 STA. 8+2.71

PROPOSED MONUMENT BOX N=632021.19 E=2099864.19 STA. 4+78.64

PROPOSED MONUMENT BOX N=632902.80 E=2099540.70 STA. 14+82.37

PROPOSED MONUMENT BOX N=632964.09 E=2099427.41 STA. 16+11.18

PROPOSED MONUMENT BOX N=631749.65 E=2099589.09 STA. 22+31.13

PROP. 5' WETLAND SETBACK

SEE NOTE 1 (TYP.)

PROP. STORMWATER MANAGEMENT BASIN (SEE SHEET 38 FOR MORE INFORMATION)

BRIDGE HAMPTON LANE (60')
N 61°45'02" E 309.29'

WINDERMERE PLACE (60')
N 00°43'10" W 324.08'

DEWBERRY COURT (60')
N 89°16'50" W 239.28'

LEO DRIVE (60')

JANNIE LANE (60')
N 89°58'29" W 170.78'

CENTERLINE DATA		
LINE #	LENGTH	BEARING
L1	111.31'	N 60°42'35" W
L2	128.81'	S 61°35'12" E

CENTERLINE CURVE DATA									
CURVE #	LENGTH	RADIUS	CHORD	BEARING	TANGENT	DELTA	PC	PT	PI
C1	428.64'	275.00'	386.55'	N 45°22'20" E	271.69'	89°18'21"	22+31.13	4+78.64	STA 24+45.45, 111.6' RT
C2	679.65'	625.00'	646.66'	S 30°26'01" E	377.81'	62°18'22"	8+2.71	14+82.37	STA 11+42.54, 105.3' RT
C3	16.46'	500.00'	16.46'	S 60°38'37" E	8.23'	01°53'10"	16+11.18	–	–
C4	141.88'	300.00'	140.56'	N 74°15'29" W	72.29'	27°05'49"	2+11.31	–	–

HAMPTON PLACE SUBDIVISION NO. 3
VOL. 102, PAGES 61-65

HAMPTON PLACE SUBDIVISION NO. 6
VOL. 111, PAGES 71-77

HAMPTON PLACE SUBDIVISION NO. 7
VOL. 113, PAGES 26-29

BLOCK "BB" BLOCK "Z" BLOCK "AA" BLOCK "J"

SLATER DITCH

REVISION	DATE:	BY:	DESCRIPTION:
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PREPARED FOR:
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23550 CENTER RIDGE ROAD
WESTLAKE, OH 44145

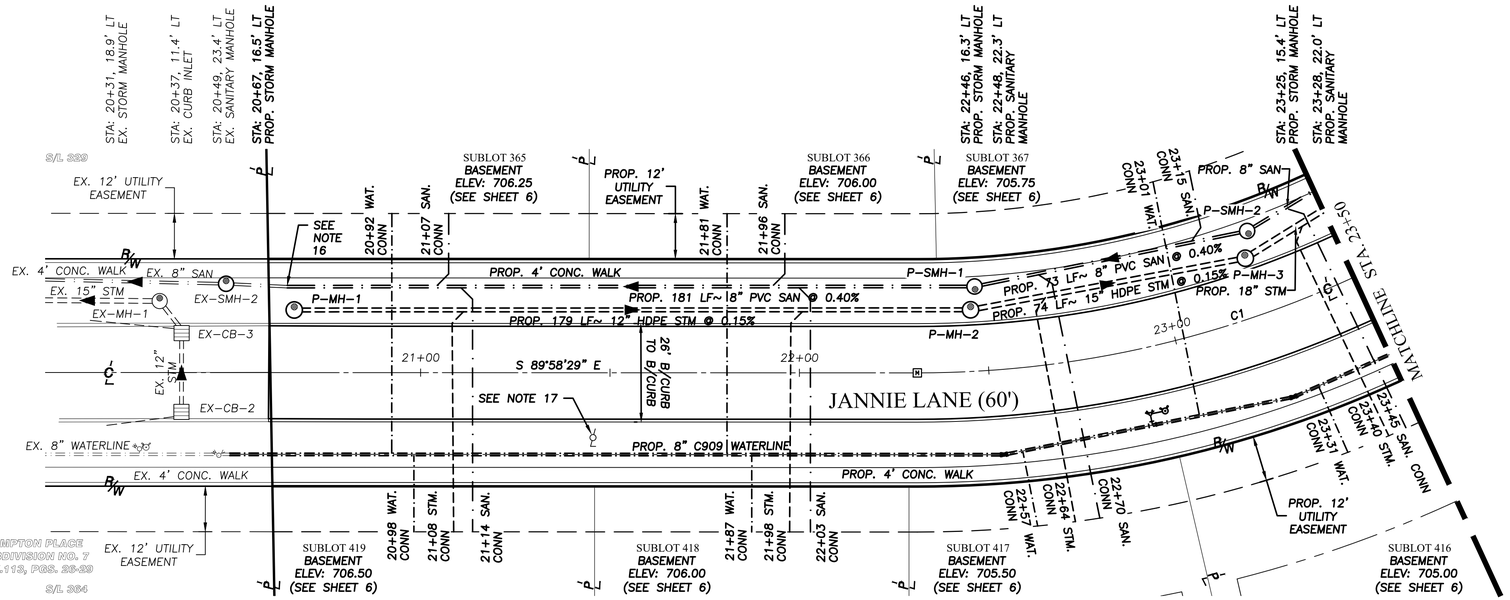
HAMPTON PLACE SUBDIVISION - PHASE 8
SURVEY CONTROL PLAN
CITY OF NORTH RIDGEVILLE, COUNTY OF LORAIN, STATE OF OHIO

SHEET 8 OF 52
JOB NO. 20-5445-8

J:\2054\5445-8 Hampton Place PH-8\DRAWINGS\Improvement Plans\(08) Survey Control Plan.dwg, Plotted: May 28, 2024 - 8:06am

CURVE DATA

C1
R=275.00'
L=428.64'
Δ=89°18'21"
T=271.69'
C=386.55'
N 45°22'20" E
PC=22+31.13
PT=4+78.64
PI=STA. 24+45.45, 111.6' RT



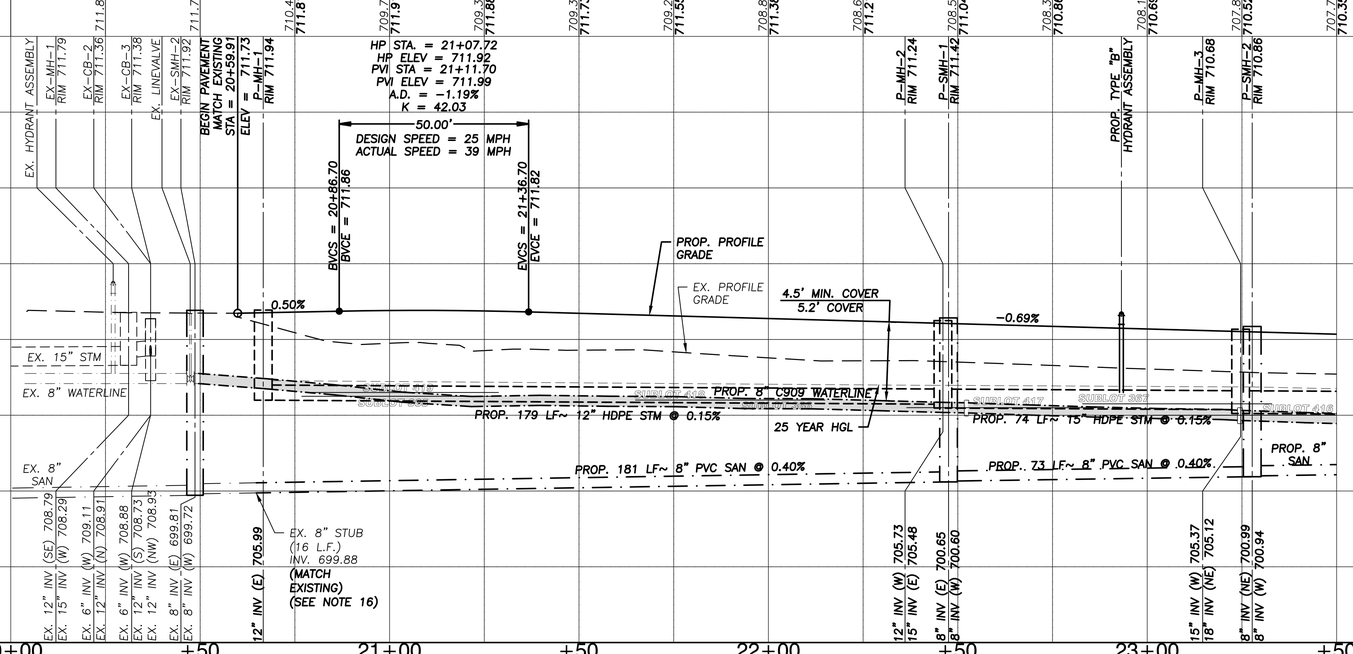
GRAPHIC SCALE
0 20 10 40
(IN FEET)
HORIZONTAL SCALE: 1" = 20 FT.
VERTICAL SCALE: 1" = 5 FT.

NOTES:

1. ALL DIMENSIONS TO THE BACK OF CURB UNLESS NOTED OTHERWISE.
2. FOR INTERSECTION DETAILS, SEE SHEET 31–36.
3. STATIONING FOR THE PROPOSED WATER HYDRANTS ARE TAKEN FROM THE CENTER OF THE HYDRANT.
4. PUBLIC SIDEWALKS IN THE COMMON AREAS SHALL BE INSTALLED BY THE DEVELOPER.
5. WATER SERVICE BOXES SHALL BE PROVIDED PER CITY OF NORTH RIDGEVILLE STANDARD CONSTRUCTION DRAWING WAT–13.
6. SANITARY SEWER CLEANOUTS SHALL BE PROVIDED PER CITY OF NORTH RIDGEVILLE STANDARD CONSTRUCTION DRAWING SAN–8.
7. CONTRACTOR TO PROVIDE PREMIUM FILL AT ALL STORM SEWER CROSSINGS OVER WATERLINE IN ACCORDANCE WITH CITY OF NORTH RIDGEVILLE STANDARDS. A MINIMUM O/O SEPARATION OF 18" IS REQUIRED.
8. IF THERE IS LESS THAN 2.5 FEET FROM THE INVERT OF THE SANITARY SEWER MAIN TO THE BASEMENT FLOOR ELEVATION, THE HOUSE WILL REQUIRE HUNG SEWERS OR GRINDER PUMPS.
9. STATIONING FOR THE PROPOSED CURB INLETS ARE TAKEN AT THE BACK OF CURB. RIM ELEVATIONS ARE TO THE GUTTER.
10. HYDRANT ASSEMBLIES ARE TO BE INSTALLED AT THE MIDDLE OF THE STORM SEWER PIPE SECTION AND NOT AT THE STORM SEWER JOINT LOCATIONS.
11. CONTRACTOR SHALL PLUG ALL WEEP HOLES AT HYDRANTS.
12. ALL REAR YARD DRAINAGE FOR EACH LOT WILL BE DETAILED OUT ON THE INDIVIDUAL PLOT PLANS. EACH SUBLOT SHALL HAVE A YARD DRAIN UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.
13. PREMIUM BACKFILL SHALL BE USED FOR ANY SANITARY SEWERS PLACED UNDER THE PAVEMENT, SIDEWALK OR WITHIN THE ZONE OF INFLUENCE SEE SHEET 43 FOR DETAILS.
14. EACH SUBLOT SHALL REQUIRE A SUMP PUMP PER CITY ORDINANCE.
15. CONTRACTOR SHALL PROVIDE A GASKETED PLUG AT THE END OF THE SANITARY LATERAL AT THE RIGHT–OF–WAY IF NOT USED IMMEDIATELY.
16. CONTRACTOR SHALL FIELD VERIFY EXISTING SANITARY STUB PRIOR TO STARTING CONSTRUCTION.
17. STREET LIGHTING SHOWN SCHEMATICALLY. FINAL DESIGN OF STREET LIGHTING WILL BE PROVIDED BY OHIO EDISON.
18. CONTRACTOR SHALL SUBMIT A JOINTING PLAN TO THE CITY FOR REVIEW. JOINTS SHALL BE INSTALLED PER CITY CONSTRUCTION STANDARDS.

BENCHMARK:

1. TOP TURN NUT ON HYDRANT LOCATED IN BETWEEN SUBLOTS 362 & 363 IN HAMPTON PLACE SUBDIVISION NO. 7
ELEV.: 715.04



REVISION	DATE:	BY:	DESCRIPTION:
	11/17/2023	CLH	ISSUE TO CITY FOR ENGINEERING REVIEW
	12/19/2023	CLH	ISSUE TO OEPA FOR REVIEW
	02/27/2024	CLH	REVISED CITY COMMENTS
	04/23/2024	CLH	REVISED PER CITY COMMENTS
	05/24/2024	CLH	REVISED PER CITY COMMENTS

DRAWN BY: SJM
CHECKED BY: CLH

BRAMHALL
ENGINEERING AND SURVEYING COMPANY
801 MOORE ROAD AVON, OHIO 44011
(440) 934 - 7878 (440) 934 - 7879 FAX

PREPARED FOR:
VALORE PROPERTIES, INC.
23550 CENTER RIDGE ROAD
WESTLAKE, OH 44145

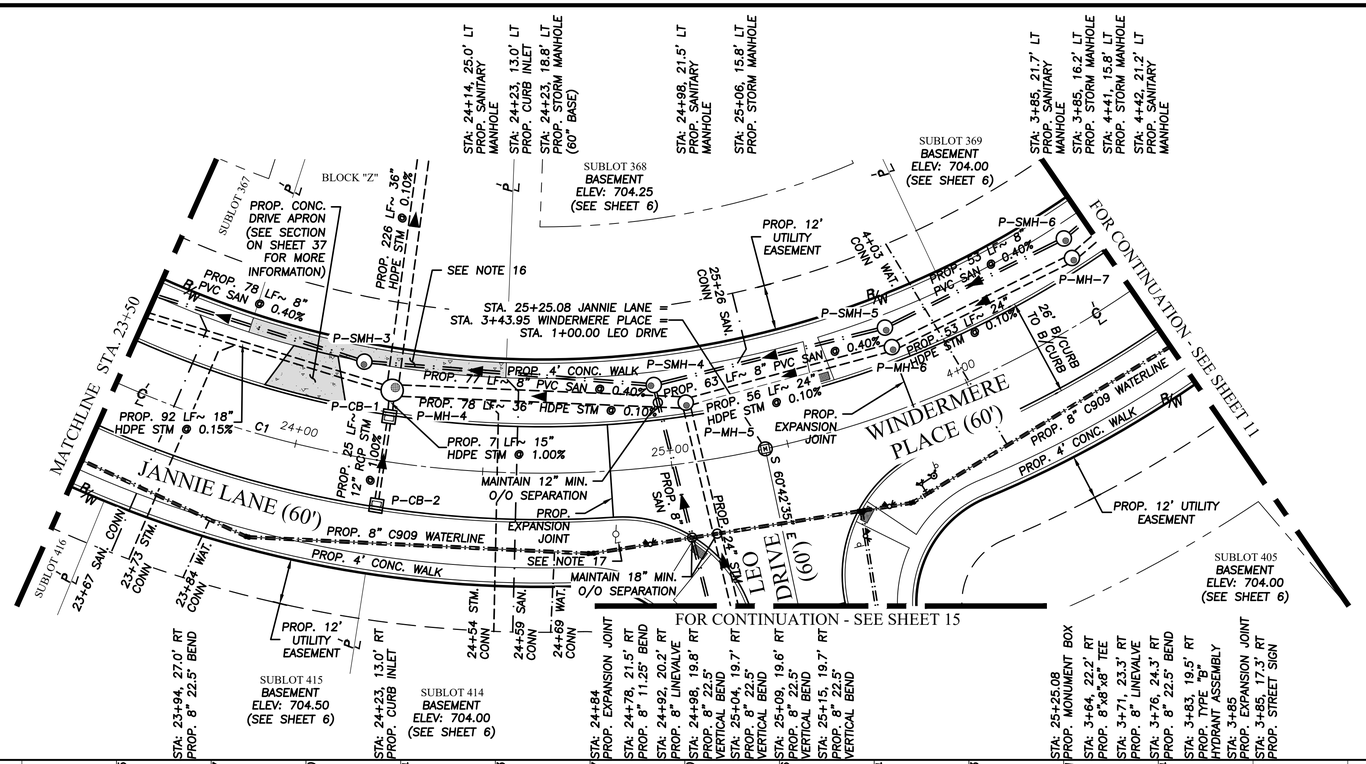
HAMPTON PLACE SUBDIVISION - PHASE 8
JANNIE LANE STA 20+00 TO STA 23+50
CITY OF NORTH RIDGEVILLE, COUNTY OF LORAIN, STATE OF OHIO

SHEET 9 OF 52
JOB NO. 20-5445-8

J:\20\5445-8 Hampton Place PH-8\DRAWINGS\Improvement Plans\(09) Jannie Lane Sta 20+00 to Sta 23+50.dwg, Plotted: May 29, 2024 - 8:07am

CURVE DATA

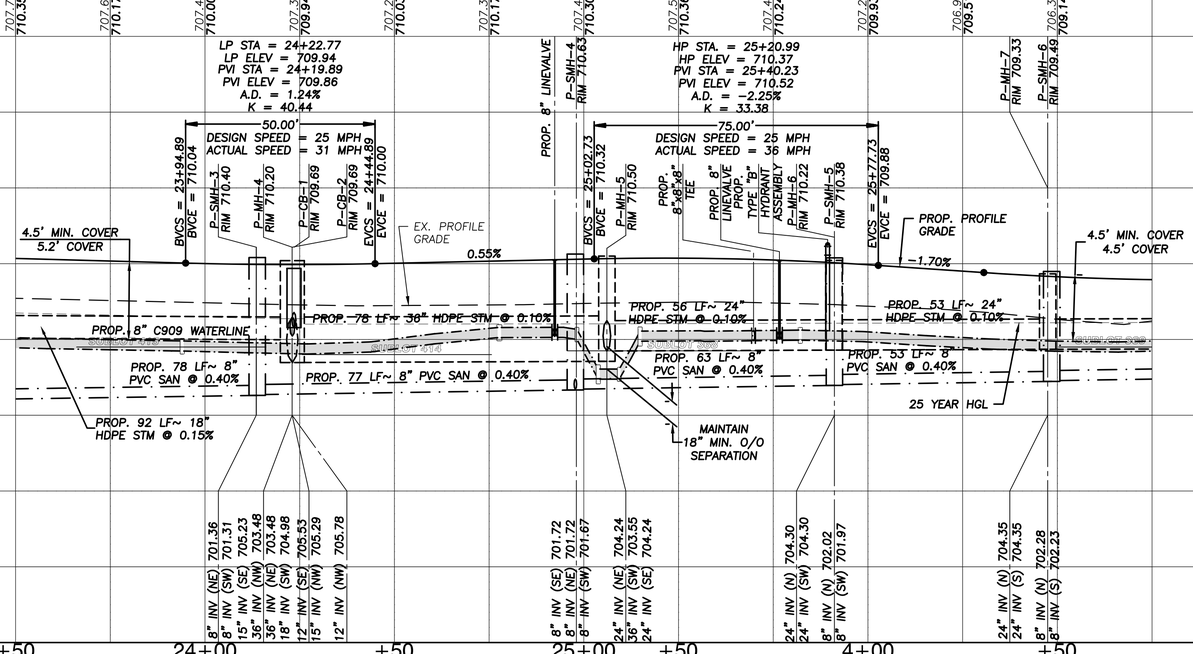
C1
R=275.00'
L=428.64'
Δ=89°18'21"
T=271.69'
C=386.55'
N 45°22'20" E
PC=22+31.13
PT=4+78.64
PI=STA. 24+45.45, 111.6' RT



GRAPHIC SCALE
0 20
10 40
(IN FEET)
HORIZONTAL SCALE: 1" = 20 FT.
VERTICAL SCALE: 1" = 5 FT.

NOTES:

1. ALL DIMENSIONS TO THE BACK OF CURB UNLESS NOTED OTHERWISE.
2. FOR INTERSECTION DETAILS, SEE SHEET 31–36.
3. STATIONING FOR THE PROPOSED WATER HYDRANTS ARE TAKEN FROM THE CENTER OF THE HYDRANT.
4. PUBLIC SIDEWALKS IN THE COMMON AREAS SHALL BE INSTALLED BY THE DEVELOPER.
5. WATER SERVICE BOXES SHALL BE PROVIDED PER CITY OF NORTH RIDGEVILLE STANDARD CONSTRUCTION DRAWING WAT–13.
6. SANITARY SEWER CLEANOUTS SHALL BE PROVIDED PER CITY OF NORTH RIDGEVILLE STANDARD CONSTRUCTION DRAWING SAN–8.
7. CONTRACTOR TO PROVIDE PREMIUM FILL AT ALL STORM SEWER CROSSINGS OVER WATERLINE IN ACCORDANCE WITH CITY OF NORTH RIDGEVILLE STANDARDS. A MINIMUM O/O SEPARATION OF 18" IS REQUIRED.
8. IF THERE IS LESS THAN 2.5 FEET FROM THE INVERT OF THE SANITARY SEWER MAIN TO THE BASEMENT FLOOR ELEVATION, THE HOUSE WILL REQUIRE HUNG SEWERS OR GRINDER PUMPS. SUBLOTS 368, 369 AND 414 WILL REQUIRE HUNG SEWERS OR GRINDER PUMPS.
9. STATIONING FOR THE PROPOSED CURB INLETS ARE TAKEN AT THE BACK OF CURB. RIM ELEVATIONS ARE TO THE GUTTER.
10. HYDRANT ASSEMBLIES ARE TO BE INSTALLED AT THE MIDDLE OF THE STORM SEWER PIPE SECTION AND NOT AT THE STORM SEWER JOINT LOCATIONS.
11. CONTRACTOR SHALL PLUG ALL WEEP HOLES AT HYDRANTS.
12. ALL REAR YARD DRAINAGE FOR EACH LOT WILL BE DETAILED OUT ON THE INDIVIDUAL PLOT PLANS. EACH SUBLOT SHALL HAVE A YARD DRAIN UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.
13. PREMIUM BACKFILL SHALL BE USED FOR ANY SANITARY SEWERS PLACED UNDER THE PAVEMENT, SIDEWALK OR WITHIN THE ZONE OF INFLUENCE SEE SHEET 43 FOR DETAILS.
14. EACH SUBLOT SHALL REQUIRE A SUMP PUMP PER CITY ORDINANCE.
15. CONTRACTOR SHALL PROVIDE A GASKETED PLUG AT THE END OF THE SANITARY LATERAL AT THE RIGHT–OF–WAY IF NOT USED IMMEDIATELY.
16. SIDEWALK SHALL BE THICKENED TO 6" MINIMUM.
17. STREET LIGHTING SHOWN SCHEMATICALLY. FINAL DESIGN OF STREET LIGHTING WILL BE PROVIDED BY OHIO EDISON.
18. CONTRACTOR SHALL SUBMIT A JOINTING PLAN TO THE CITY FOR REVIEW. JOINTS SHALL BE INSTALLED PER CITY CONSTRUCTION STANDARDS.



BENCHMARK:

1. TOP TURN NUT ON HYDRANT LOCATED IN BETWEEN SUBLOTS 362 & 363 IN HAMPTON PLACE SUBDIVISION NO. 7
ELEV.: 715.04

DATE:	BY:	DESCRIPTION:
11/17/2023	CLH	ISSUE TO CITY FOR ENGINEERING REVIEW
12/19/2023	CLH	ISSUE TO OEPA FOR REVIEW
02/27/2024	CLH	REVISED CITY COMMENTS
04/23/2024	CLH	REVISED PER CITY COMMENTS
05/24/2024	CLH	REVISED PER CITY COMMENTS

REVISION

DRAWN BY: SJM
CHECKED BY: CLH

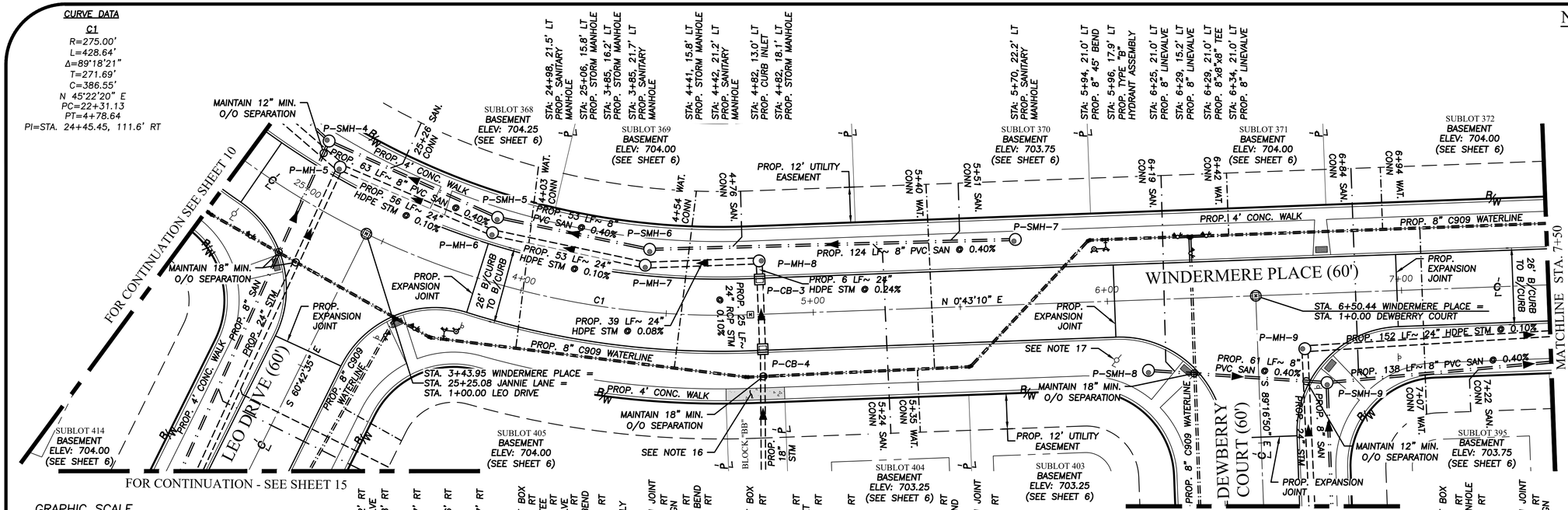
BRAMHALL
ENGINEERING AND SURVEYING COMPANY
801 MOORE ROAD AVON, OHIO 44011
(440) 934 - 7878 (440) 934 - 7879 FAX

PREPARED FOR:
VALORE PROPERTIES, INC.
23550 CENTER RIDGE ROAD
WESTLAKE, OH 44145

HAMPTON PLACE SUBDIVISION - PHASE 8
JANNIE LANE STA 23+50 TO STA 25+25.08
CITY OF NORTH RIDGEVILLE, COUNTY OF LORAIN, STATE OF OHIO

SHEET 10 OF 52
JOB NO. 20-5445-8

J:\20544S-8 Hampton Place PH-8\DRAWINGS\Improvement Plans\(10) Jannie Lane Sta 23+50 to Sta 25+25.08.dwg, Plotted: May 28, 2024 - 8:05am



NOTES:

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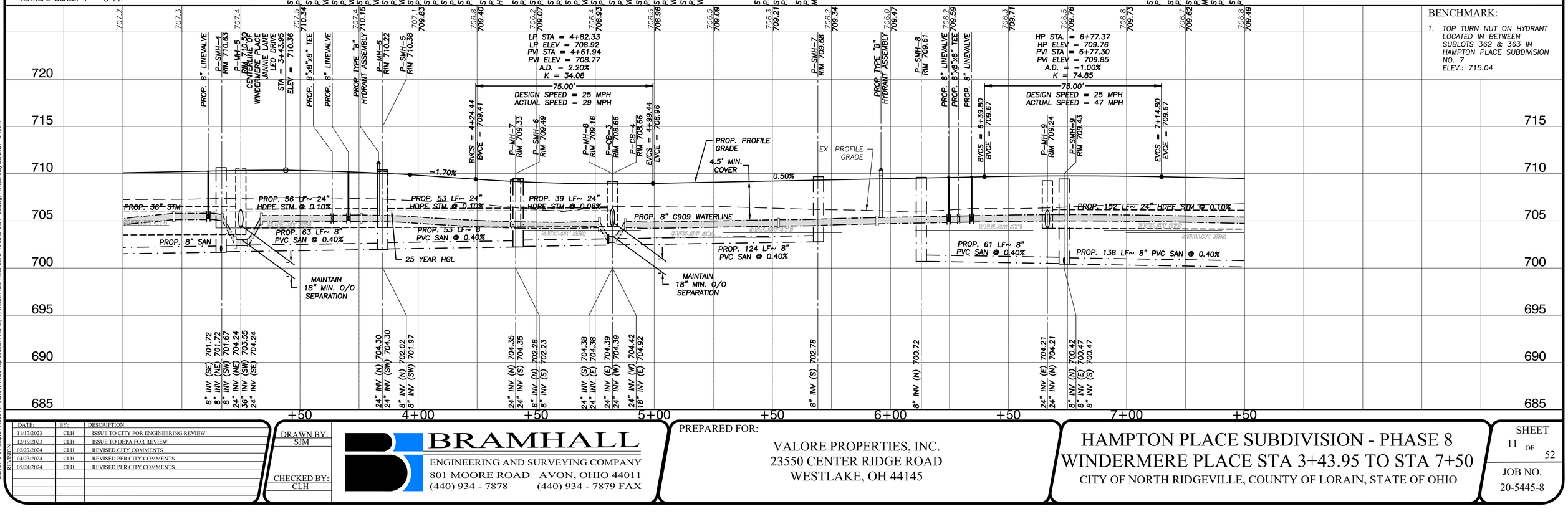
2. FOR INTERSECTION DETAILS, SEE SHEET 31–36.
3. STATIONING FOR THE PROPOSED WATER HYDRANTS ARE TAKEN FROM THE CENTER OF THE HYDRANT.
4. PUBLIC SIDEWALKS IN THE COMMON AREAS SHALL BE INSTALLED BY THE DEVELOPER.
5. WATER SERVICE BOXES SHALL BE PROVIDED PER CITY OF NORTH RIDGEVILLE STANDARD CONSTRUCTION DRAWING WAT–13.
6. SANITARY SEWER CLEANOUTS SHALL BE PROVIDED PER CITY OF NORTH RIDGEVILLE STANDARD CONSTRUCTION DRAWING SAN–8.
7. CONTRACTOR TO PROVIDE PREMIUM FILL AT ALL STORM SEWER CROSSINGS OVER WATERLINE IN ACCORDANCE WITH CITY OF NORTH RIDGEVILLE STANDARDS. A MINIMUM O/O SEPARATION OF 18" IS REQUIRED.
8. IF THERE IS LESS THAN 2.5 FEET FROM THE INVERT OF THE SANITARY SEWER MAIN TO THE BASEMENT FLOOR ELEVATION, THE HOUSE WILL REQUIRE HUNG SEWERS OR GRINDER PUMPS. SUBLOTS 368, 369, 370, 371, 372, 395, & 404 WILL REQUIRE HUNG SEWERS OR GRINDER PUMPS.
9. STATIONING FOR THE PROPOSED CURB INLETS ARE TAKEN AT THE BACK OF CURB. RIM ELEVATIONS ARE TO THE GUTTER.
10. HYDRANT ASSEMBLIES ARE TO BE INSTALLED AT THE MIDDLE OF THE STORM SEWER PIPE SECTION AND NOT AT THE STORM SEWER JOINT LOCATIONS.
11. CONTRACTOR SHALL PLUG ALL WEEP HOLES AT HYDRANTS.
12. ALL REAR YARD DRAINAGE FOR EACH LOT WILL BE DETAILED OUT ON THE INDIVIDUAL PLOT PLANS. EACH SUBLOT SHALL HAVE A YARD DRAIN UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.
13. PREMIUM BACKFILL SHALL BE USED FOR ANY SANITARY SEWERS PLACED UNDER THE PAVEMENT, SIDEWALK OR WITHIN THE ZONE OF INFLUENCE SEE SHEET 43 FOR DETAILS.
14. EACH SUBLOT SHALL REQUIRE A SUMP PUMP PER CITY ORDINANCE.
15. CONTRACTOR SHALL PROVIDE A GASKETED PLUG AT THE END OF THE SANITARY LATERAL AT THE RIGHT–OF–WAY IF NOT USED IMMEDIATELY.
16. SIDEWALK AT ALL BASIN ACCESS POINTS SHALL BE THICKENED TO 6" MINIMUM.
17. STREET LIGHTING SHOWN SCHEMATICALLY. FINAL DESIGN OF STREET LIGHTING WILL BE PROVIDED BY OHIO EDISON.
18. CONTRACTOR SHALL SUBMIT A JOINTING PLAN TO THE CITY FOR REVIEW. JOINTS SHALL BE INSTALLED PER CITY CONSTRUCTION STANDARDS.



BENCHMARK:

1. TOP TURN NUT ON HYDRANT LOCATED IN BETWEEN SUBLOTS 362 & 363 IN HAMPTON PLACE SUBDIVISION NO. 7
ELEV.: 715.04

REVISION	DATE:	BY:	DESCRIPTION:
	11/17/2023	CLH	ISSUE TO CITY FOR ENGINEERING REVIEW
	12/19/2023	CLH	ISSUE TO OEPA FOR REVIEW
	02/27/2024	CLH	REVISED CITY COMMENTS
	04/23/2024	CLH	REVISED PER CITY COMMENTS
	05/24/2024	CLH	REVISED PER CITY COMMENTS

DRAWN BY: SJM

CHECKED BY: CLH

BRAMHALL
ENGINEERING AND SURVEYING COMPANY
801 MOORE ROAD AVON, OHIO 44011
(440) 934 - 7878 (440) 934 - 7879 FAX

PREPARED FOR:

VALORE PROPERTIES, INC.
23550 CENTER RIDGE ROAD
WESTLAKE, OH 44145

HAMPTON PLACE SUBDIVISION - PHASE 8
WINDERMERE PLACE STA 3+43.95 TO STA 7+50
CITY OF NORTH RIDGEVILLE, COUNTY OF LORAIN, STATE OF OHIO

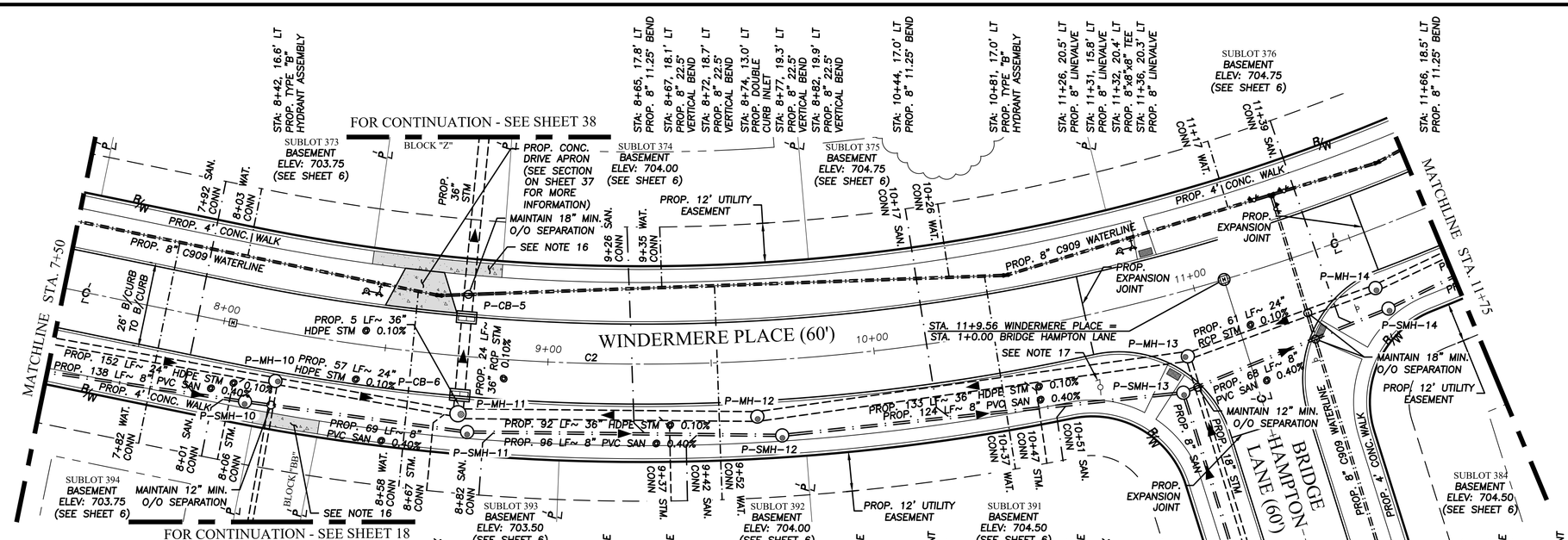
SHEET 11 OF 52

JOB NO. 20-5445-8

J:\20\5445-8 Hampton Place PH-8\DRAWINGS\Improvement Plans\(11) Windermere Place Sta 3+43.95 to Sta 7+50.dwg, Plotted: May 29, 2024 - 8:10am

CURVE DATA

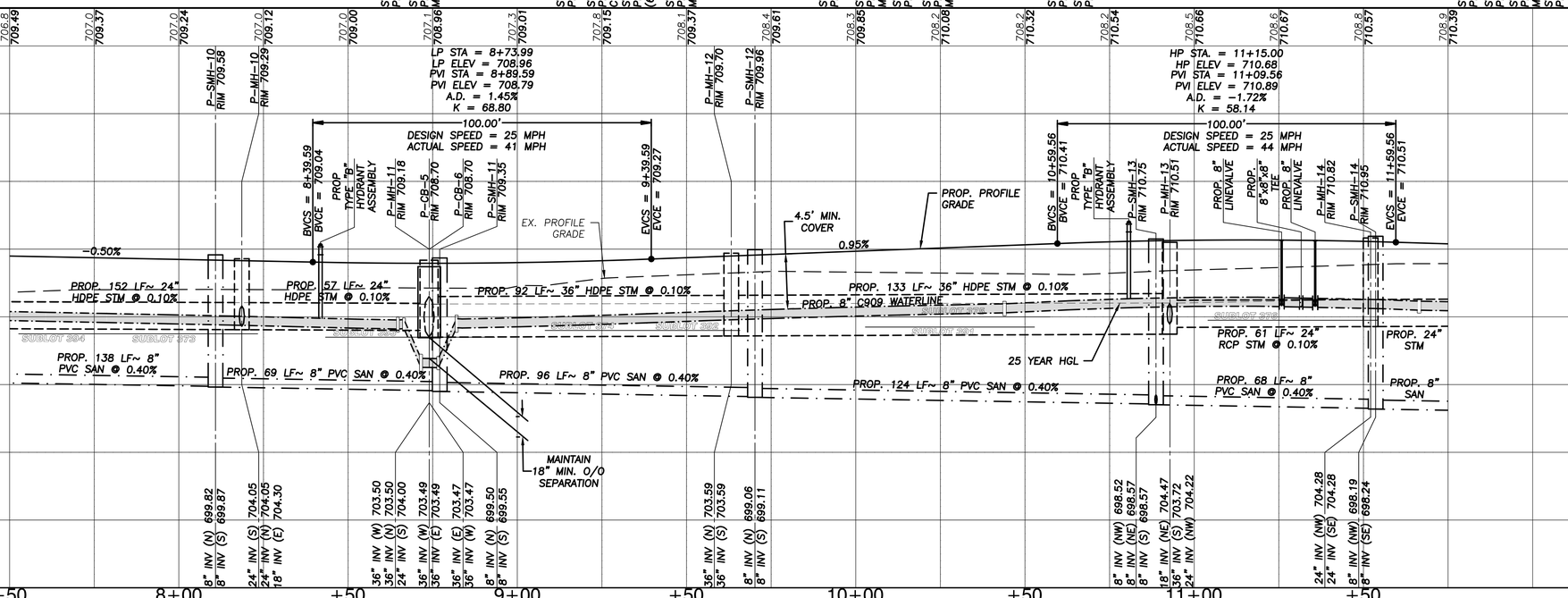
C2
R=625.00'
L=679.65'
Δ=62°18'22"
T=377.81'
C=646.66'
N 30°26'01" W
PC=8+02.71
PT=14+82.37
PI=STA. 11+42.54, 105.3' RT



GRAPHIC SCALE
0 20
10 40
(IN FEET)
HORIZONTAL SCALE: 1" = 20 FT.
VERTICAL SCALE: 1" = 5 FT.

NOTES:

1. ALL DIMENSIONS TO THE BACK OF CURB UNLESS NOTED OTHERWISE.
2. FOR INTERSECTION DETAILS, SEE SHEET 31–36.
3. STATIONING FOR THE PROPOSED WATER HYDRANTS ARE TAKEN FROM THE CENTER OF THE HYDRANT.
4. PUBLIC SIDEWALKS IN THE COMMON AREAS SHALL BE INSTALLED BY THE DEVELOPER.
5. WATER SERVICE BOXES SHALL BE PROVIDED PER CITY OF NORTH RIDGEVILLE STANDARD CONSTRUCTION DRAWING WAT–13.
6. SANITARY SEWER CLEANOUTS SHALL BE PROVIDED PER CITY OF NORTH RIDGEVILLE STANDARD CONSTRUCTION DRAWING SAN–8.
7. CONTRACTOR TO PROVIDE PREMIUM FILL AT ALL STORM SEWER CROSSINGS OVER WATERLINE IN ACCORDANCE WITH CITY OF NORTH RIDGEVILLE STANDARDS. A MINIMUM O/O SEPARATION OF 18" IS REQUIRED.
8. IF THERE IS LESS THAN 2.5 FEET FROM THE INVERT OF THE SANITARY SEWER MAIN TO THE BASEMENT FLOOR ELEVATION, THE HOUSE WILL REQUIRE HUNG SEWERS OR GRINDER PUMPS.
9. STATIONING FOR THE PROPOSED CURB INLETS ARE TAKEN AT THE BACK OF CURB. RIM ELEVATIONS ARE TO THE GUTTER.
10. HYDRANT ASSEMBLIES ARE TO BE INSTALLED AT THE MIDDLE OF THE STORM SEWER PIPE SECTION AND NOT AT THE STORM SEWER JOINT LOCATIONS.
11. CONTRACTOR SHALL PLUG ALL WEEP HOLES AT HYDRANTS.
12. ALL REAR YARD DRAINAGE FOR EACH LOT WILL BE DETAILED OUT ON THE INDIVIDUAL PLOT PLANS. EACH SUBLOT SHALL HAVE A YARD DRAIN UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.
13. PREMIUM BACKFILL SHALL BE USED FOR ANY SANITARY SEWERS PLACED UNDER THE PAVEMENT, SIDEWALK OR WITHIN THE ZONE OF INFLUENCE SEE SHEET 43 FOR DETAILS.
14. EACH SUBLOT SHALL REQUIRE A SUMP PUMP PER CITY ORDINANCE.
15. CONTRACTOR SHALL PROVIDE A GASKETED PLUG AT THE END OF THE SANITARY LATERAL AT THE RIGHT–OF–WAY IF NOT USED IMMEDIATELY.
16. SIDEWALK SHALL BE THICKENED TO 6" MINIMUM.
17. STREET LIGHTING SHOWN SCHEMATICALLY. FINAL DESIGN OF STREET LIGHTING WILL BE PROVIDED BY OHIO EDISON.
18. CONTRACTOR SHALL SUBMIT A JOINTING PLAN TO THE CITY FOR REVIEW. JOINTS SHALL BE INSTALLED PER CITY CONSTRUCTION STANDARDS.



BENCHMARK:

1. TOP TURN NUT ON HYDRANT LOCATED IN BETWEEN SUBLOTS 362 & 363 IN HAMPTON PLACE SUBDIVISION NO. 7
ELEV.: 715.04

REVISION	DATE:	BY:	DESCRIPTION:
	11/17/2023	CLH	ISSUE TO CITY FOR ENGINEERING REVIEW
	12/19/2023	CLH	ISSUE TO OEPA FOR REVIEW
	02/27/2024	CLH	REVISED CITY COMMENTS
	04/23/2024	CLH	REVISED PER CITY COMMENTS
	05/24/2024	CLH	REVISED PER CITY COMMENTS

DRAWN BY: SJM
CHECKED BY: CLH

BRAMHALL
ENGINEERING AND SURVEYING COMPANY
801 MOORE ROAD AVON, OHIO 44011
(440) 934 - 7878 (440) 934 - 7879 FAX

PREPARED FOR:
VALORE PROPERTIES, INC.
23550 CENTER RIDGE ROAD
WESTLAKE, OH 44145

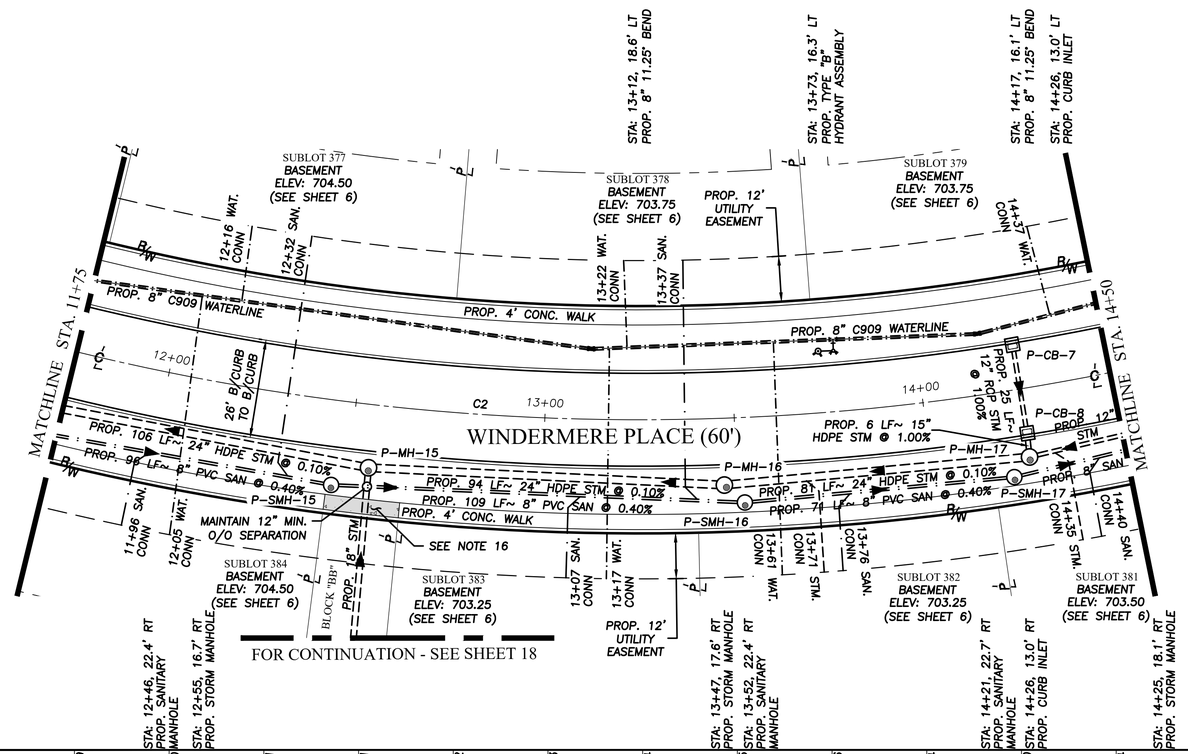
HAMPTON PLACE SUBDIVISION - PHASE 8
WINDERMERE PLACE STA 7+50 TO STA 11+75
CITY OF NORTH RIDGEVILLE, COUNTY OF LORAIN, STATE OF OHIO

SHEET 12 OF 52
JOB NO. 20-5445-8

J:\20\5445-8 Hampton Place PH-8\DRAWINGS\Improvement Plans\(12) Windermere Place Sta 7+50 to Sta 11+75.dwg, Plotted: May 28, 2024 - 8:11am

CURVE DATA

C2
R=625.00'
L=679.65'
Δ=62°18'22"
T=377.81'
C=646.66'
N 30°26'01" W
PC=8+02.71
PT=14+82.37
PI=STA. 11+42.54, 105.3' RT



GRAPHIC SCALE
0 20
10 40
(IN FEET)
HORIZONTAL SCALE: 1" = 20 FT.
VERTICAL SCALE: 1" = 5 FT.

NOTES:

1. ALL DIMENSIONS TO THE BACK OF CURB UNLESS NOTED OTHERWISE.
2. FOR INTERSECTION DETAILS, SEE SHEET 31–36.
3. STATIONING FOR THE PROPOSED WATER HYDRANTS ARE TAKEN FROM THE CENTER OF THE HYDRANT.
4. PUBLIC SIDEWALKS IN THE COMMON AREAS SHALL BE INSTALLED BY THE DEVELOPER.
5. WATER SERVICE BOXES SHALL BE PROVIDED PER CITY OF NORTH RIDGEVILLE STANDARD CONSTRUCTION DRAWING WAT–13.
6. SANITARY SEWER CLEANOUTS SHALL BE PROVIDED PER CITY OF NORTH RIDGEVILLE STANDARD CONSTRUCTION DRAWING SAN–8.
7. CONTRACTOR TO PROVIDE PREMIUM FILL AT ALL STORM SEWER CROSSINGS OVER WATERLINE IN ACCORDANCE WITH CITY OF NORTH RIDGEVILLE STANDARDS. A MINIMUM O/O SEPARATION OF 18" IS REQUIRED.
8. IF THERE IS LESS THAN 2.5 FEET FROM THE INVERT OF THE SANITARY SEWER MAIN TO THE BASEMENT FLOOR ELEVATION, THE HOUSE WILL REQUIRE HUNG SEWERS OR GRINDER PUMPS.
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14. EACH SUBLOT SHALL REQUIRE A SUMP PUMP PER CITY ORDINANCE.
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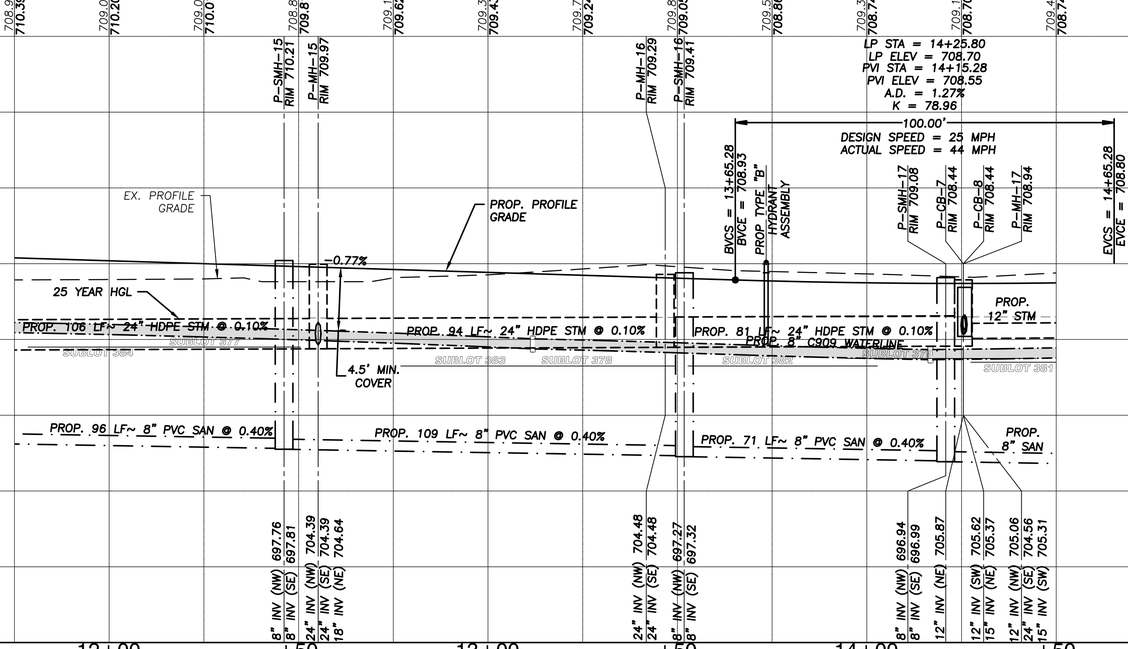


BENCHMARK:

1. TOP TURN NUT ON HYDRANT LOCATED IN BETWEEN SUBLOTS 362 & 363 IN HAMPTON PLACE SUBDIVISION NO. 7
ELEV.: 715.04

DATE:	BY:	DESCRIPTION:
11/17/2023	CLH	ISSUE TO CITY FOR ENGINEERING REVIEW
12/19/2023	CLH	ISSUE TO OEPA FOR REVIEW
02/27/2024	CLH	REVISED CITY COMMENTS
04/23/2024	CLH	REVISED PER CITY COMMENTS
05/24/2024	CLH	REVISED PER CITY COMMENTS

REVISION

DRAWN BY: SJM
CHECKED BY: CLH

BRAMHALL
ENGINEERING AND SURVEYING COMPANY
801 MOORE ROAD AVON, OHIO 44011
(440) 934 - 7878 (440) 934 - 7879 FAX

PREPARED FOR:
VALORE PROPERTIES, INC.
23550 CENTER RIDGE ROAD
WESTLAKE, OH 44145

HAMPTON PLACE SUBDIVISION - PHASE 8
WINDERMERE PLACE STA 11+75 TO STA 14+50
CITY OF NORTH RIDGEVILLE, COUNTY OF LORAIN, STATE OF OHIO

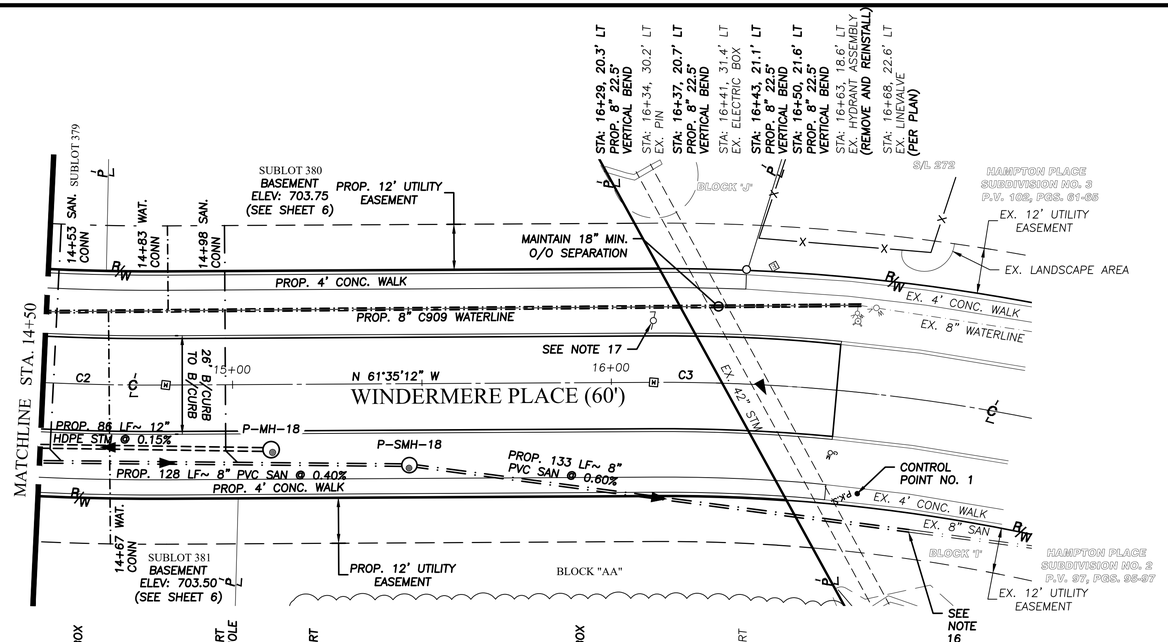
SHEET 13 OF 52
JOB NO. 20-5445-8

J:\20\5445-8 Hampton Place PH-8\DRAWINGS\Improvement Plans\13) Windermere Place Sta 11+75 to Sta 14+50.dwg, Plotted: May 28, 2024 - 8:13am

CURVE DATA

C2
R=625.00'
L=679.65'
Δ=62°18'22"
T=377.81'
C=646.66'
N 30°26'01" W
PC=8+02.71
PT=14+82.37
PI=STA. 11+42.54, 105.3' RT

C3
R=500.00'
L=16.46'
Δ=01°53'10"
T=8.23'
C=16.46'
N 60°38'37" W
PC=16+11.18



GRAPHIC SCALE
0 20
10 40
(IN FEET)
HORIZONTAL SCALE: 1" = 20 FT.
VERTICAL SCALE: 1" = 5 FT.

NOTES:

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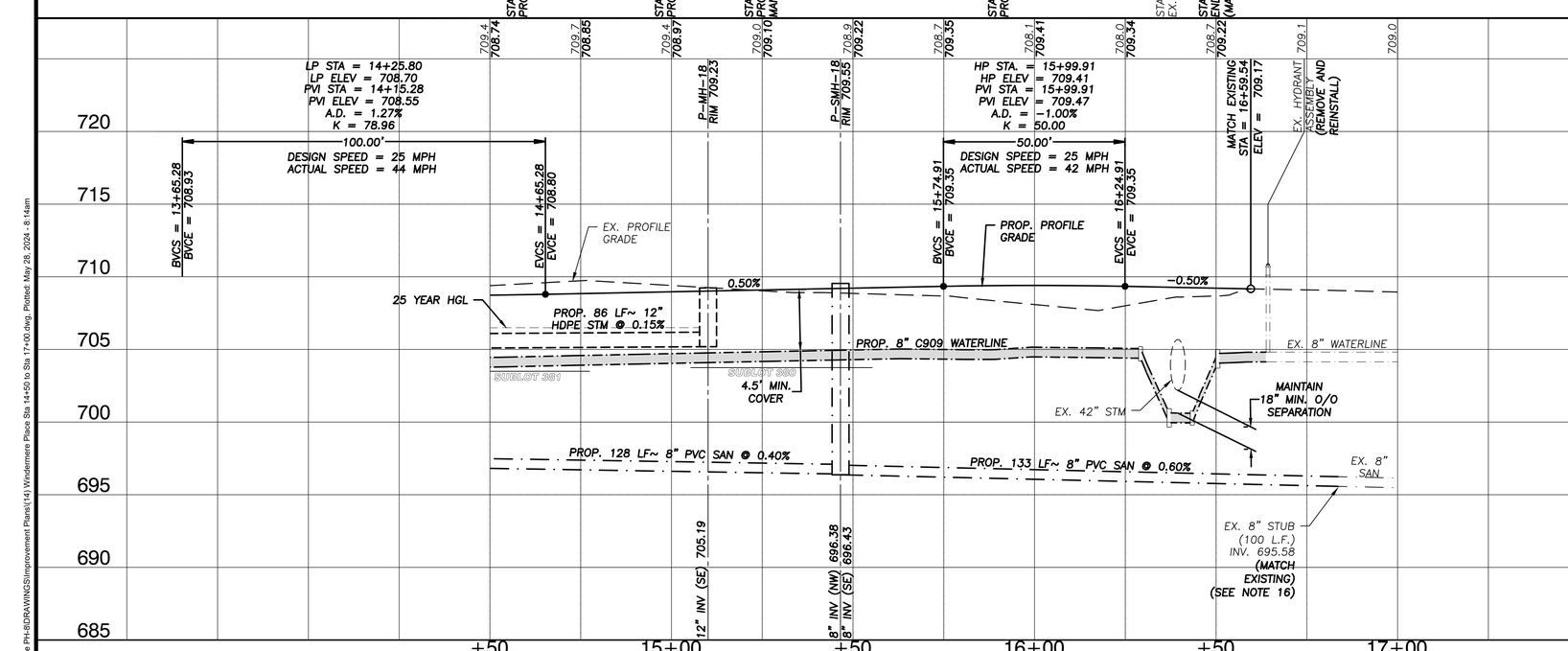
3. STATIONING FOR THE PROPOSED WATER HYDRANTS ARE TAKEN FROM THE CENTER OF THE HYDRANT.
4. PUBLIC SIDEWALKS IN THE COMMON AREAS SHALL BE INSTALLED BY THE DEVELOPER.
5. WATER SERVICE BOXES SHALL BE PROVIDED PER CITY OF NORTH RIDGEVILLE STANDARD CONSTRUCTION DRAWING WAT–13.
6. SANITARY SEWER CLEANOUTS SHALL BE PROVIDED PER CITY OF NORTH RIDGEVILLE STANDARD CONSTRUCTION DRAWING SAN–8.
7. CONTRACTOR TO PROVIDE PREMIUM FILL AT ALL STORM SEWER CROSSINGS OVER WATERLINE IN ACCORDANCE WITH CITY OF NORTH RIDGEVILLE STANDARDS. A MINIMUM O/O SEPARATION OF 18" IS REQUIRED.
8. IF THERE IS LESS THAN 2.5 FEET FROM THE INVERT OF THE SANITARY SEWER MAIN TO THE BASEMENT FLOOR ELEVATION, THE HOUSE WILL REQUIRE HUNG SEWERS OR GRINDER PUMPS.
9. STATIONING FOR THE PROPOSED CURB INLETS ARE TAKEN AT THE BACK OF CURB. RIM ELEVATIONS ARE TO THE GUTTER.
10. HYDRANT ASSEMBLIES ARE TO BE INSTALLED AT THE MIDDLE OF THE STORM SEWER PIPE SECTION AND NOT AT THE STORM SEWER JOINT LOCATIONS.
11. CONTRACTOR SHALL PLUG ALL WEEP HOLES AT HYDRANTS.
12. ALL REAR YARD DRAINAGE FOR EACH LOT WILL BE DETAILED OUT ON THE INDIVIDUAL PLOT PLANS. EACH SUBLOT SHALL HAVE A YARD DRAIN UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.
13. PREMIUM BACKFILL SHALL BE USED FOR ANY SANITARY SEWERS PLACED UNDER THE PAVEMENT, SIDEWALK OR WITHIN THE ZONE OF INFLUENCE SEE SHEET 43 FOR DETAILS.
14. EACH SUBLOT SHALL REQUIRE A SUMP PUMP PER CITY ORDINANCE.
15. CONTRACTOR SHALL PROVIDE A GASKETED PLUG AT THE END OF THE SANITARY LATERAL AT THE RIGHT–OF–WAY IF NOT USED IMMEDIATELY.
16. CONTRACTOR SHALL FIELD VERIFY EXISTING SANITARY STUB PRIOR TO STARTING CONSTRUCTION.
17. STREET LIGHTING SHOWN SCHEMATICALLY. FINAL DESIGN OF STREET LIGHTING WILL BE PROVIDED BY OHIO EDISON.
18. CONTRACTOR SHALL SUBMIT A JOINTING PLAN TO THE CITY FOR REVIEW. JOINTS SHALL BE INSTALLED PER CITY CONSTRUCTION STANDARDS.



BENCHMARK:

1. TOP TURN NUT ON HYDRANT LOCATED IN BETWEEN SUBLOTS 362 & 363 IN HAMPTON PLACE SUBDIVISION NO. 7
ELEV.: 715.04

REVISION	DATE:	BY:	DESCRIPTION:
	11/17/2023	CLH	ISSUE TO CITY FOR ENGINEERING REVIEW
	12/19/2023	CLH	ISSUE TO OEPA FOR REVIEW
	02/27/2024	CLH	REVISED CITY COMMENTS
	04/23/2024	CLH	REVISED PER CITY COMMENTS
	05/24/2024	CLH	REVISED PER CITY COMMENTS

DRAWN BY: SJM
CHECKED BY: CLH

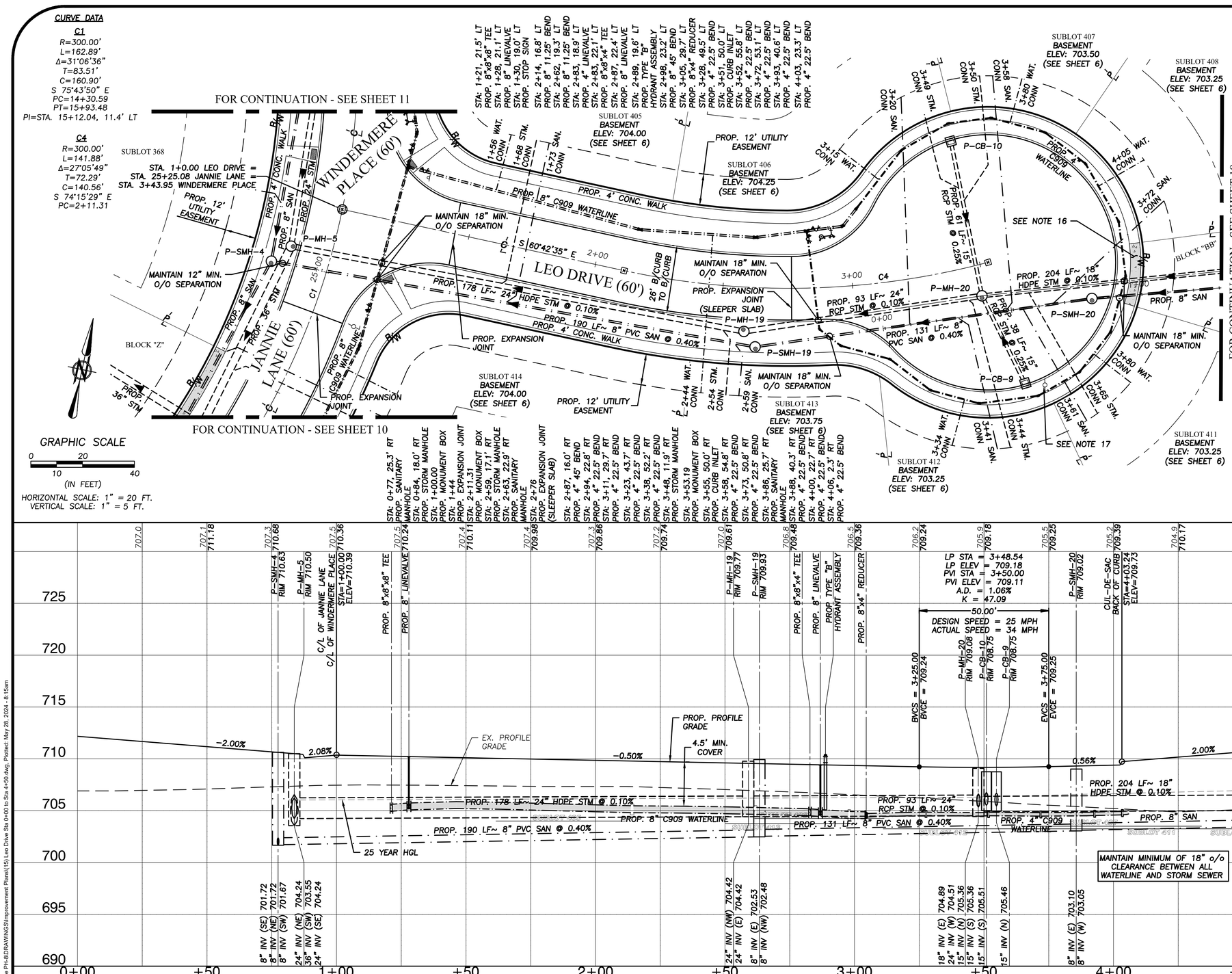
BRAMHALL
ENGINEERING AND SURVEYING COMPANY
801 MOORE ROAD AVON, OHIO 44011
(440) 934 - 7878 (440) 934 - 7879 FAX

PREPARED FOR:
VALORE PROPERTIES, INC.
23550 CENTER RIDGE ROAD
WESTLAKE, OH 44145

HAMPTON PLACE SUBDIVISION - PHASE 8
WINDERMERE PLACE STA 14+50 TO STA 17+00
CITY OF NORTH RIDGEVILLE, COUNTY OF LORAIN, STATE OF OHIO

SHEET 14 OF 52
JOB NO. 20-5445-8

J:\2054\5445-8 Hampton Place PH-8\DRAWINGS\Improvement Plans\14) Windermere Place Sta 14+50 to Sta 17+00.dwg, Plotted: May 28, 2024 - 8:14am



NOTES:

1. ALL DIMENSIONS TO THE BACK OF CURB UNLESS NOTED OTHERWISE.
2. FOR INTERSECTION DETAILS, SEE SHEET 31 & 36.
3. STATIONING FOR THE PROPOSED WATER HYDRANTS ARE TAKEN FROM THE CENTER OF THE HYDRANT.
4. PUBLIC SIDEWALKS IN THE COMMON AREAS SHALL BE INSTALLED BY THE DEVELOPER.
5. WATER SERVICE BOXES SHALL BE PROVIDED PER CITY OF NORTH RIDGEVILLE STANDARD CONSTRUCTION DRAWING WAT–13.
6. SANITARY SEWER CLEANOUTS SHALL BE PROVIDED PER CITY OF NORTH RIDGEVILLE STANDARD CONSTRUCTION DRAWING SAN–8.
7. CONTRACTOR TO PROVIDE PREMIUM FILL AT ALL STORM SEWER CROSSINGS OVER WATERLINE IN ACCORDANCE WITH CITY OF NORTH RIDGEVILLE STANDARDS. A MINIMUM O/O SEPARATION OF 18" IS REQUIRED.
8. IF THERE IS LESS THAN 2.5 FEET FROM THE INVERT OF THE SANITARY SEWER MAIN TO THE BASEMENT FLOOR ELEVATION, THE HOUSE WILL REQUIRE HUNG SEWERS OR GRINDER PUMPS. SUBLOTS 405, 406, 407, 408, 411, 412, & 413 WILL REQUIRE HUNG SEWERS OR GRINDER PUMPS.
9. STATIONING FOR THE PROPOSED CURB INLETS ARE TAKEN AT THE BACK OF CURB. RIM ELEVATIONS ARE TO THE GUTTER.
10. HYDRANT ASSEMBLIES ARE TO BE INSTALLED AT THE MIDDLE OF THE STORM SEWER PIPE SECTION AND NOT AT THE STORM SEWER JOINT LOCATIONS.
11. CONTRACTOR SHALL PLUG ALL WEEP HOLES AT HYDRANTS.
12. ALL REAR YARD DRAINAGE FOR EACH LOT WILL BE DETAILED OUT ON THE INDIVIDUAL PLOT PLANS. EACH SUBLOT SHALL HAVE A YARD DRAIN UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.
13. PREMIUM BACKFILL SHALL BE USED FOR ANY SANITARY SEWERS PLACED UNDER THE PAVEMENT, SIDEWALK OR WITHIN THE ZONE OF INFLUENCE SEE SHEET 43 FOR DETAILS.
14. EACH SUBLOT SHALL REQUIRE A SUMP PUMP PER CITY ORDINANCE.
15. CONTRACTOR SHALL PROVIDE A GASKETED PLUG AT THE END OF THE SANITARY LATERAL AT THE RIGHT–OF–WAY IF NOT USED IMMEDIATELY.
16. SIDEWALK SHALL BE THICKENED TO 6" MINIMUM.
17. STREET LIGHTING SHOWN SCHEMATICALLY. FINAL DESIGN OF STREET LIGHTING WILL BE PROVIDED BY OHIO EDISON.
18. CONTRACTOR SHALL SUBMIT A JOINTING PLAN TO THE CITY FOR REVIEW. JOINTS SHALL BE INSTALLED PER CITY CONSTRUCTION STANDARDS.

BENCHMARK:

1. TOP TURN NUT ON HYDRANT LOCATED IN BETWEEN SUBLOTS 362 & 363 IN HAMPTON PLACE SUBDIVISION NO. 7
   ELEV.: 715.04

REVISION	DATE:	BY:	DESCRIPTION:
	11/17/2023	CLH	ISSUE TO CITY FOR ENGINEERING REVIEW
	12/19/2023	CLH	ISSUE TO OEPA FOR REVIEW
	02/27/2024	CLH	REVISED CITY COMMENTS
	04/23/2024	CLH	REVISED PER CITY COMMENTS
	05/24/2024	CLH	REVISED PER CITY COMMENTS

DRAWN BY: SJM

CHECKED BY: CLH

BRAMHALL
ENGINEERING AND SURVEYING COMPANY
801 MOORE ROAD AVON, OHIO 44011
(440) 934 - 7878 (440) 934 - 7879 FAX

PREPARED FOR:

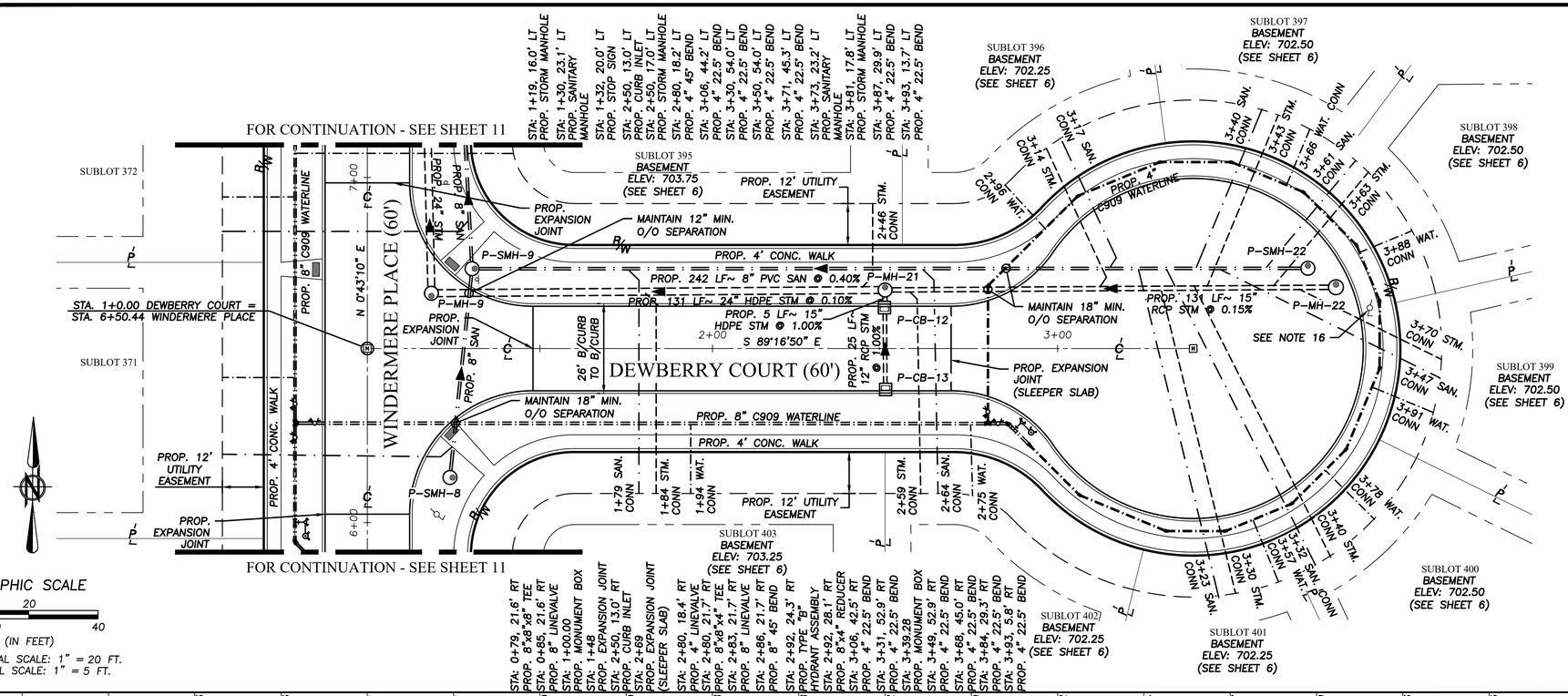
VALORE PROPERTIES, INC.
23550 CENTER RIDGE ROAD
WESTLAKE, OH 44145

HAMPTON PLACE SUBDIVISION - PHASE 8
LEO DRIVE STA 0+00 TO STA 4+50
CITY OF NORTH RIDGEVILLE, COUNTY OF LORAIN, STATE OF OHIO

SHEET 15 OF 52

JOB NO. 20-5445-8

J:\20\5445-8 Hampton Place PH-8\DRAWINGS\Improvement Plans\15) Leo Drive Sta 0+00 to Sta 4+50.dwg, Plotted: May 28, 2024 - 8:15am



GRAPHIC SCALE

0 20 10 40

(IN FEET)

HORIZONTAL SCALE: 1" = 20 FT.
VERTICAL SCALE: 1" = 5 FT.

NOTES:

1. ALL DIMENSIONS TO THE BACK OF CURB UNLESS NOTED OTHERWISE.
2. FOR INTERSECTION DETAILS, SEE SHEET 31 & 36.
3. STATIONING FOR THE PROPOSED WATER HYDRANTS ARE TAKEN FROM THE CENTER OF THE HYDRANT.
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8. IF THERE IS LESS THAN 2.5 FEET FROM THE INVERT OF THE SANITARY SEWER MAIN TO THE BASEMENT FLOOR ELEVATION, THE HOUSE WILL REQUIRE HUNG SEWERS OR GRINDER PUMPS. SUBLOTS 396, 397, 398, 399, 400, 401, 402, & 403 WILL REQUIRE HUNG SEWERS OR GRINDER PUMPS.
9. STATIONING FOR THE PROPOSED CURB INLETS ARE TAKEN AT THE BACK OF CURB. RIM ELEVATIONS ARE TO THE GUTTER.
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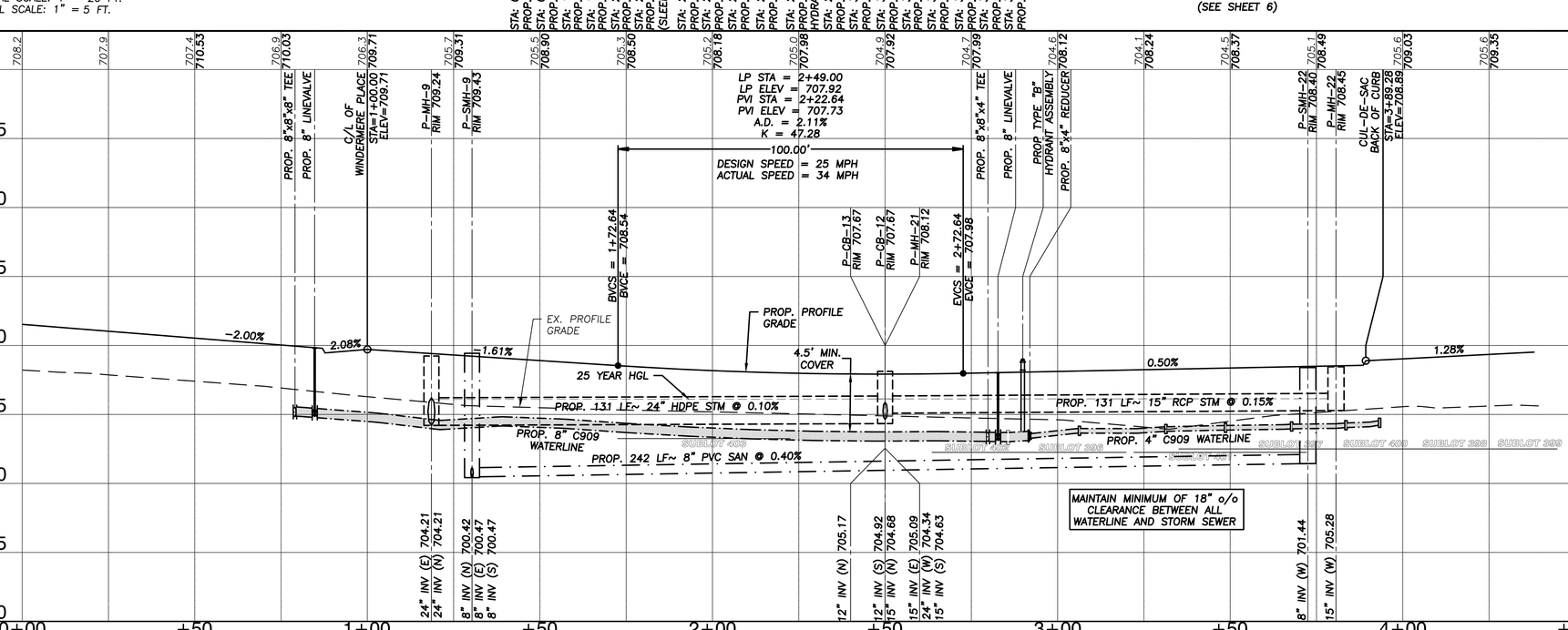


BENCHMARK:

1. TOP TURN NUT ON HYDRANT LOCATED IN BETWEEN SUBLOTS 362 & 363 IN HAMPTON PLACE SUBDIVISION NO. 7 ELEV.: 715.04

DATE:	BY:	DESCRIPTION:
11/17/2023	CLH	ISSUE TO CITY FOR ENGINEERING REVIEW
12/19/2023	CLH	ISSUE TO OEPA FOR REVIEW
02/27/2024	CLH	REVISED CITY COMMENTS
04/23/2024	CLH	REVISED PER CITY COMMENTS
05/24/2024	CLH	REVISED PER CITY COMMENTS

REVISION

DRAWN BY: SJM

CHECKED BY: CLH

BRAMHALL
ENGINEERING AND SURVEYING COMPANY
801 MOORE ROAD AVON, OHIO 44011
(440) 934 - 7878 (440) 934 - 7879 FAX

PREPARED FOR:

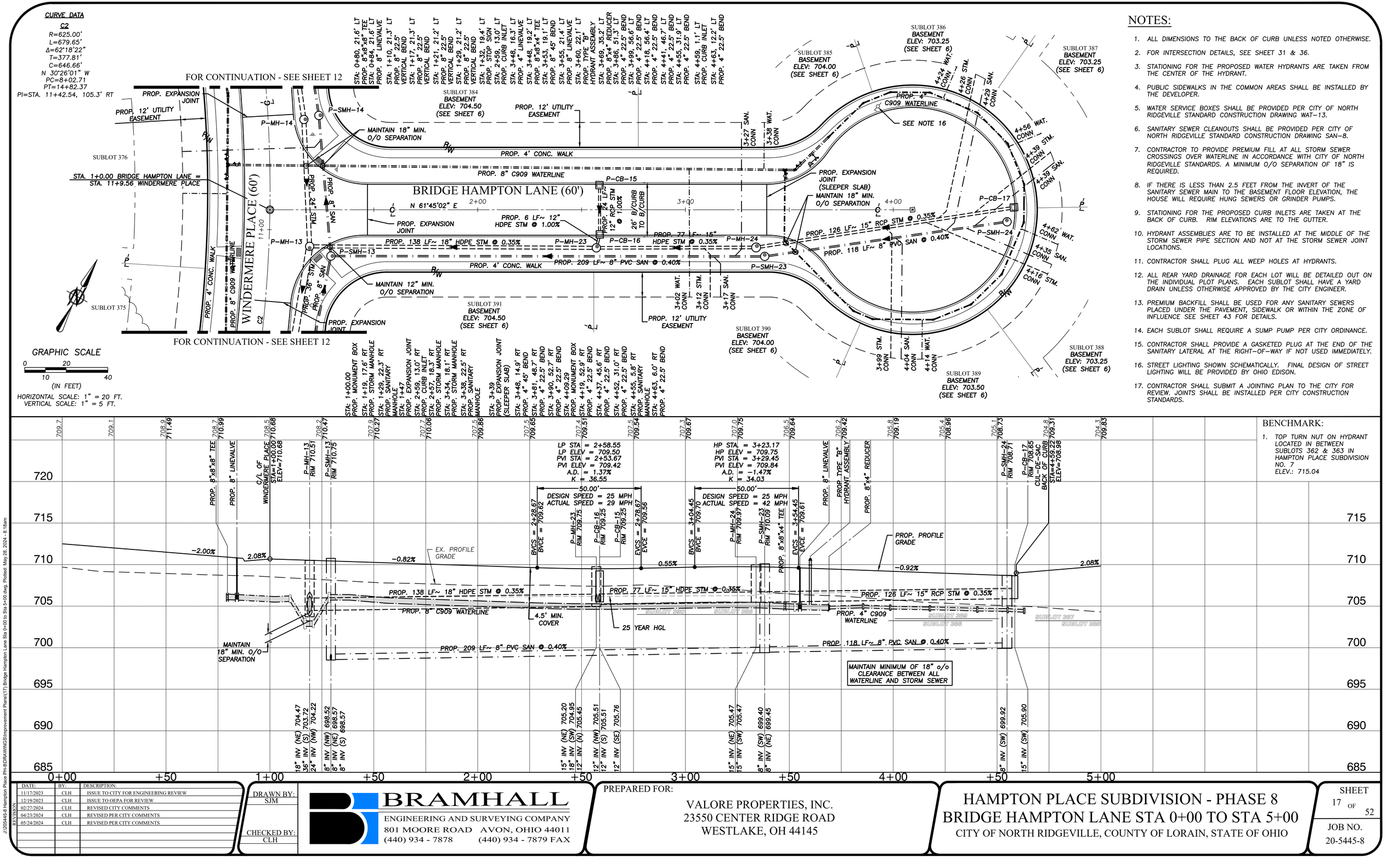
VALORE PROPERTIES, INC.
23550 CENTER RIDGE ROAD
WESTLAKE, OH 44145

HAMPTON PLACE SUBDIVISION - PHASE 8
DEWBERRY COURT STA 0+00 TO STA 4+50
CITY OF NORTH RIDGEVILLE, COUNTY OF LORAIN, STATE OF OHIO

SHEET 16 OF 52

JOB NO. 20-5445-8

J:\20544\5-8 Hampton Place PH-8\DRAWINGS\Improvement Plans\(16) Dewberry Court Sta 0+00 to Sta 4+50.dwg, Plotted: May 28, 2024 - 8:17am



NOTES:

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13. PREMIUM BACKFILL SHALL BE USED FOR ANY SANITARY SEWERS PLACED UNDER THE PAVEMENT, SIDEWALK OR WITHIN THE ZONE OF INFLUENCE SEE SHEET 43 FOR DETAILS.
14. EACH SUBLOT SHALL REQUIRE A SUMP PUMP PER CITY ORDINANCE.
15. CONTRACTOR SHALL PROVIDE A GASKETED PLUG AT THE END OF THE SANITARY LATERAL AT THE RIGHT-OF-WAY IF NOT USED IMMEDIATELY.
16. STREET LIGHTING SHOWN SCHEMATICALLY. FINAL DESIGN OF STREET LIGHTING WILL BE PROVIDED BY OHIO EDISON.
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BENCHMARK:

1. TOP TURN NUT ON HYDRANT LOCATED IN BETWEEN SUBLOTS 362 & 363 IN HAMPTON PLACE SUBDIVISION NO. 7
   ELEV.: 715.04

REVISION	DATE:	BY:	DESCRIPTION:
	11/17/2023	CLH	ISSUE TO CITY FOR ENGINEERING REVIEW
	12/19/2023	CLH	ISSUE TO OEPA FOR REVIEW
	02/27/2024	CLH	REVISED CITY COMMENTS
	04/23/2024	CLH	REVISED PER CITY COMMENTS
	05/24/2024	CLH	REVISED PER CITY COMMENTS

DRAWN BY: SJM
CHECKED BY: CLH

BRAMHALL
ENGINEERING AND SURVEYING COMPANY
801 MOORE ROAD AVON, OHIO 44011
(440) 934 - 7878 (440) 934 - 7879 FAX

PREPARED FOR:
VALORE PROPERTIES, INC.
23550 CENTER RIDGE ROAD
WESTLAKE, OH 44145

HAMPTON PLACE SUBDIVISION - PHASE 8
BRIDGE HAMPTON LANE STA 0+00 TO STA 5+00
CITY OF NORTH RIDGEVILLE, COUNTY OF LORAIN, STATE OF OHIO

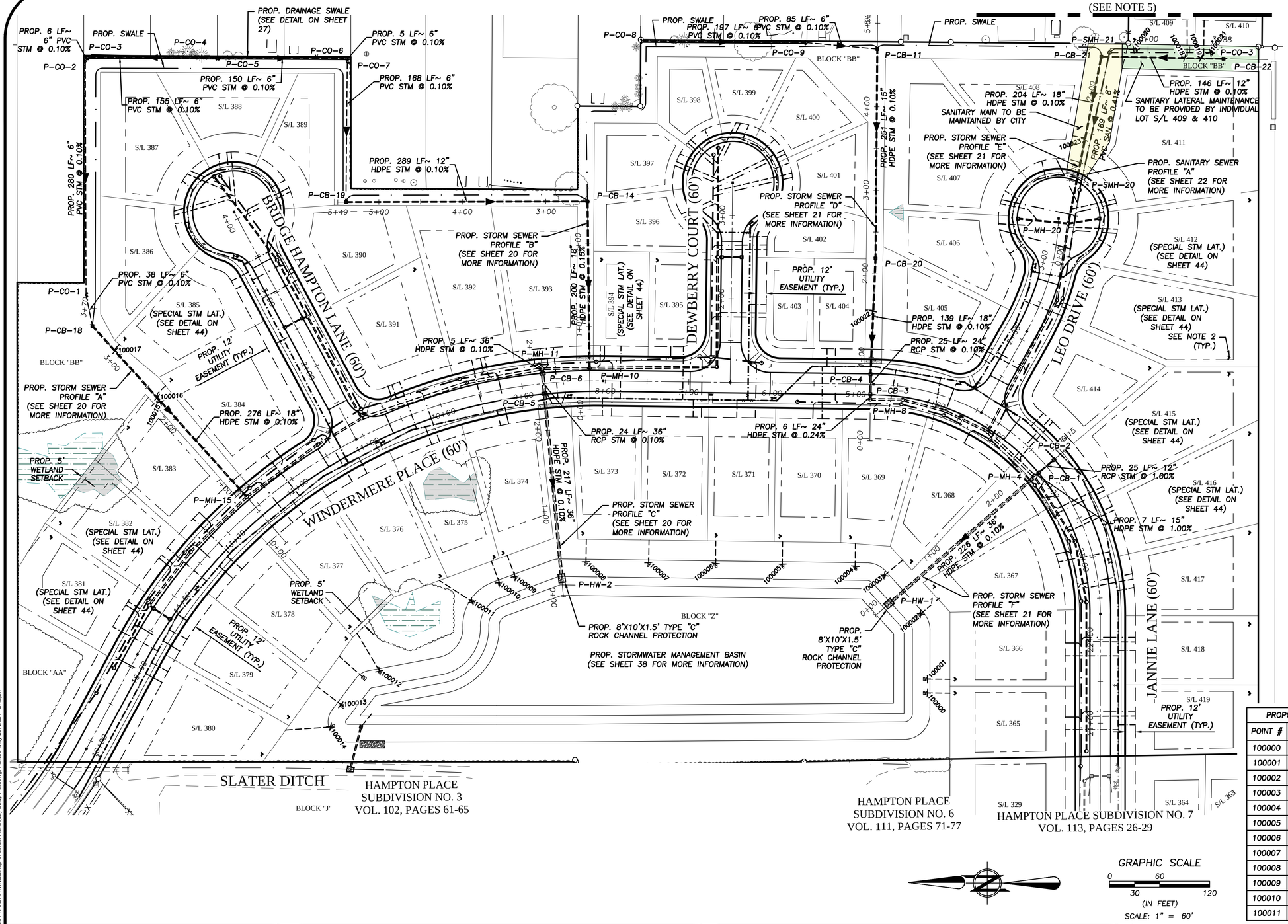
SHEET 17 OF 52
JOB NO. 20-5445-8

J:\20544S-8 Hampton Place PH-8\DRAWINGS\Improvement Plans\17) Bridge Hampton Lane Sta 0+00 to Sta 5+00.dwg, Plotted: May 28, 2024 - 8:18am

FOR CONTINUATION - SEE SHEET 22
(SEE NOTE 5)

NOTES:

1. SEE PLAN AND PROFILE SHEETS 9–17 FOR STATION CALLOUTS FOR THE OTHER SUBLOTS.
2. ALL REAR STORM DRAINAGE FOR EACH LOT WILL BE DETAILED ON THE INDIVIDUAL HOUSE PLOT PLANS. EACH SUBLOT SHALL HAVE A YARD DRAIN UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER,
3. EACH SUBLOT SHALL REQUIRE A SUMP PUMP PER CITY ORDINANCE.
4. FULL HEIGHT HEADWALLS SHALL BE INSTALLED UNLESS RCP STORM SEWER IS USED.
5. SUBLOTS 409 AND 410 SEE DETAIL ON SHEET 22 FOR WATER LATERALS CALLOUT.
6. SEE SHEET 19 FOR PROPOSED STORM AND SANITARY STRUCTURE TABLE INFORMATION.



GRAPHIC SCALE
0 30 60 120
(IN FEET)
SCALE: 1" = 60'

PROPOSED STORM LATERAL CONNECTIONS

POINT #	NORTHING	EASTING	DESCRIPTION
100000	631956.68	2099494.46	STM LAT
100001	631956.68	2099510.98	STM LAT
100002	631964.87	2099589.06	STM LAT
100003	632008.26	2099635.10	STM LAT
100004	632043.28	2099646.15	STM LAT
100005	632130.50	2099648.55	STM LAT
100006	632210.49	2099649.55	STM LAT
100007	632290.48	2099650.56	STM LAT
100008	632365.55	2099651.50	STM LAT
100009	632450.65	2099633.81	STM LAT
100010	632469.59	2099626.82	STM LAT
100011	632501.80	2099603.71	STM LAT

PROPOSED STORM LATERAL CONNECTIONS

POINT #	NORTHING	EASTING	DESCRIPTION
100012	632612.92	2099520.54	STM LAT
100013	632659.04	2099480.42	STM LAT
100014	632671.53	2099453.59	STM LAT
100015	632875.77	2099842.95	STM LAT
100016	632879.00	2099848.77	STM LAT
100017	632929.31	2099904.60	STM LAT
100018	631648.58	2100255.46	STM LAT
100019	631628.89	2100255.22	STM LAT
100020	631709.79	2100265.93	SAN LAT
100021	631617.84	2100261.55	SAN LAT
100022	632022.35	2099951.73	STM LAT
100023	631768.85	2100157.21	STM LAT

REVISION	DATE:	BY:	DESCRIPTION:
	11/17/2023	CLH	ISSUE TO CITY FOR ENGINEERING REVIEW
	12/19/2023	CLH	ISSUE TO OEPA FOR REVIEW
	02/27/2024	CLH	REVISED CITY COMMENTS
	04/23/2024	CLH	REVISED PER CITY COMMENTS
	05/24/2024	CLH	REVISED PER CITY COMMENTS
	–	–	–
	–	–	–
	–	–	–

DRAWN BY: SJM
CHECKED BY: CLH

BRAMHALL
ENGINEERING AND SURVEYING COMPANY
801 MOORE ROAD AVON, OHIO 44011
(440) 934 - 7878 (440) 934 - 7879 FAX

PREPARED FOR:
VALORE PROPERTIES, INC.
23550 CENTER RIDGE ROAD
WESTLAKE, OH 44145

HAMPTON PLACE SUBDIVISION - PHASE 8
UTILITY PLAN
CITY OF NORTH RIDGEVILLE, COUNTY OF LORAIN, STATE OF OHIO

SHEET 18 OF 52
JOB NO. 20-5445-8

J:\2054\5445-8 Hampton Place PH-8\DRAWINGS\Improvement Plans\(18) Utility Plan.dwg, Plotted: May 29, 2024 - 2:43pm

PROPOSED SANITARY STRUCTURE TABLE

STRUCTURE NAME	RIM	INVERT(S)	STRUCTURE LOCATION
P-CO-3	RIM 707.18	6" PVC (N) INV.: 705.20	N: 631614.22 E: 2100261.55
P-SMH-19	RIM 709.93	8" PVC (E) INV.: 702.53 8" PVC (NW) INV.: 702.48	N: 631794.82 E: 2099967.03
P-SMH-20	RIM 709.02	8" PVC (E) INV.: 703.10 8" PVC (W) INV.: 703.05	N: 631774.55 E: 2100096.86
P-SMH-21	RIM 707.49	6" PVC (S) INV.: 703.96 8" PVC (W) INV.: 703.79 6" PVC (SE) INV.: 703.96	N: 631738.60 E: 2100261.58

PROPOSED STORM STRUCTURE TABLE

STRUCTURE NAME	RIM	INVERT(S)	STRUCTURE LOCATION
P-CO-1	RIM 706.33	6" (E) INV.: 701.46 6" (W) INV.: 701.46	N: 632964.46 E: 2099971.06
P-CO-2	RIM 703.69	6" (SE) INV.: 701.74 6" (W) INV.: 701.74	N: 632965.35 E: 2100250.89
P-CO-3	RIM 703.58	6" (S) INV.: 701.74 6" (NW) INV.: 701.74	N: 632962.37 E: 2100255.90
P-CO-4	RIM 703.41	6" (N) INV.: 701.90	N: 632806.91 E: 2100255.09
P-CO-5	RIM 703.38	6" (S) INV.: 701.90	N: 632804.20 E: 2100255.08
P-CO-6	RIM 704.37	6" (N) INV.: 701.75 6" (SW) INV.: 701.75	N: 632654.26 E: 2100254.27
P-CO-7	RIM 704.98	6" (NE) INV.: 701.75 6" (W) INV.: 701.75	N: 632651.50 E: 2100250.53
P-CO-8	RIM 706.96	6" (S) INV.: 703.55	N: 632298.17 E: 2100275.21
P-CO-9	RIM 706.22	6" (N) INV.: 703.35 6" (S) INV.: 703.35	N: 632101.50 E: 2100273.57

PROPOSED STORM STRUCTURE TABLE

STRUCTURE NAME	RIM	INVERT(S)	STRUCTURE LOCATION
P-CB-1	RIM 709.69	12" (SE) INV.: 705.53 15" (NW) INV.: 705.29	N: 631823.52 E: 2099758.29
P-CB-2	RIM 709.69	12" (NW) INV.: 705.78	N: 631804.77 E: 2099774.05
P-CB-3	RIM 708.66	24" (E) INV.: 704.39 24" (W) INV.: 704.39	N: 632025.04 E: 2099851.99
P-CB-4	RIM 708.66	24" (W) INV.: 704.42 18" (E) INV.: 704.92	N: 632024.73 E: 2099876.49
P-CB-5	RIM 708.70	36" (E) INV.: 703.47 36" (W) INV.: 703.47	N: 632415.17 E: 2099852.91
P-CB-6	RIM 708.70	36" (W) INV.: 703.49 36" (E) INV.: 703.49	N: 632417.65 E: 2099877.28
P-CB-11 * **	RIM 707.50	15" (W) INV.: 705.56 12"x18" WINDOW (E) INV.: 705.56 6" (N) INV.: 703.27	N: 632016.68 E: 2100265.94
P-CB-14	RIM 707.50	18" (W) INV.: 704.60 12" (N) INV.: 704.75 12"x18" WINDOW (E) INV.: 704.75	N: 632363.77 E: 2100083.34
P-CB-18 * **	RIM 707.00	18" (SW) INV.: 704.92 12"x18" WINDOW (E) INV.: 705.00 6" (E) INV.: 701.42	N: 632956.81 E: 2099933.96
P-CB-19 * **	RIM 707.50	12" (S) INV.: 705.04 12"x18" WINDOW (E) INV.: 705.37 6" (E) INV.: 701.58	N: 632653.05 E: 2100082.52
P-CB-20	RIM 707.51	18" (W) INV.: 705.06 15" (E) INV.: 705.31	N: 632018.80 E: 2100014.90
P-CB-21 *	RIM 707.50	12" (S) INV.: 705.60 18" (W) INV.: 705.10 12"x18" WINDOW (E) INV.: 705.10	N: 631748.39 E: 2100256.77
P-CB-22	RIM 707.25	12" (N) INV.: 705.74 12"x18" WINDOW (S) INV.: 705.75	N: 631602.09 E: 2100254.09
P-HW-1	——	36" (SE) INV.: 703.25	N: 631998.69 E: 2099604.65
P-HW-2	——	36" (E) INV.: 703.25	N: 632395.22 E: 2099636.87
P-MH-4	RIM 710.20	15" (SE) INV.: 705.23 36" (NW) INV.: 703.48 36" (NE) INV.: 703.48 18" (SW) INV.: 704.98	N: 631828.29 E: 2099753.75
P-MH-8	RIM 709.16	24" (S) INV.: 704.38 24" (E) INV.: 704.38	N: 632025.06 E: 2099846.10
P-MH-10	RIM 709.29	24" (S) INV.: 704.05 24" (N) INV.: 704.05 18" (E) INV.: 704.30	N: 632361.34 E: 2099883.36
P-MH-11	RIM 709.18	36" (W) INV.: 703.50 36" (N) INV.: 703.50 24" (S) INV.: 704.00	N: 632418.13 E: 2099882.70
P-MH-15	RIM 709.97	24" (NW) INV.: 704.39 24" (SE) INV.: 704.39 18" (NE) INV.: 704.64	N: 632772.02 E: 2099729.35
P-MH-20	RIM 709.08	18" (E) INV.: 704.89 24" (W) INV.: 704.51 15" (N) INV.: 705.36 15" (S) INV.: 705.36	N: 631788.00 E: 2100056.58

*CONTRACTOR SHALL INSTALL CHECK VALVE. SEE SHEETS 20-21 FOR MORE INFORMATION.

**STRUCTURE HAS A 2' SUMP AND SHALL BE 2-3 STRUCTURE.

J:\2054\45-8 Hampton Place PH-8\DRAWINGS\Improvement Plans\(19) Structure Tables.dwg, Plotted: May 29, 2024 - 8:20am

REVISION	DATE:	BY:	DESCRIPTION:
	11/17/2023	CLH	ISSUE TO CITY FOR ENGINEERING REVIEW
	12/19/2023	CLH	ISSUE TO OEPA FOR REVIEW
	02/27/2024	CLH	REVISED CITY COMMENTS
	04/23/2024	CLH	REVISED PER CITY COMMENTS
	05/24/2024	CLH	REVISED PER CITY COMMENTS

DRAWN BY: SJM

CHECKED BY: CLH

BRAMHALL
ENGINEERING AND SURVEYING COMPANY
801 MOORE ROAD AVON, OHIO 44011
(440) 934 - 7878 (440) 934 - 7879 FAX

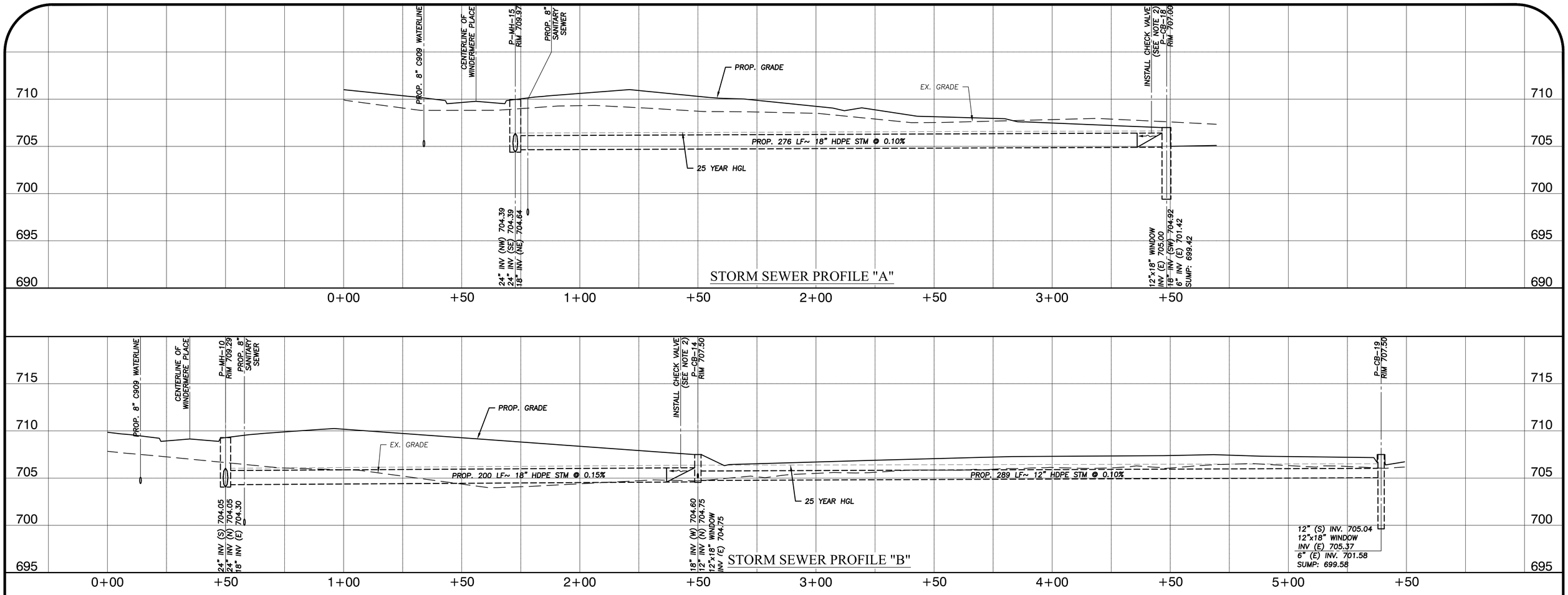
PREPARED FOR:

VALORE PROPERTIES, INC.
23550 CENTER RIDGE ROAD
WESTLAKE, OH 44145

HAMPTON PLACE SUBDIVISION - PHASE 8
STRUCTURE TABLES
CITY OF NORTH RIDGEVILLE, COUNTY OF LORAIN, STATE OF OHIO

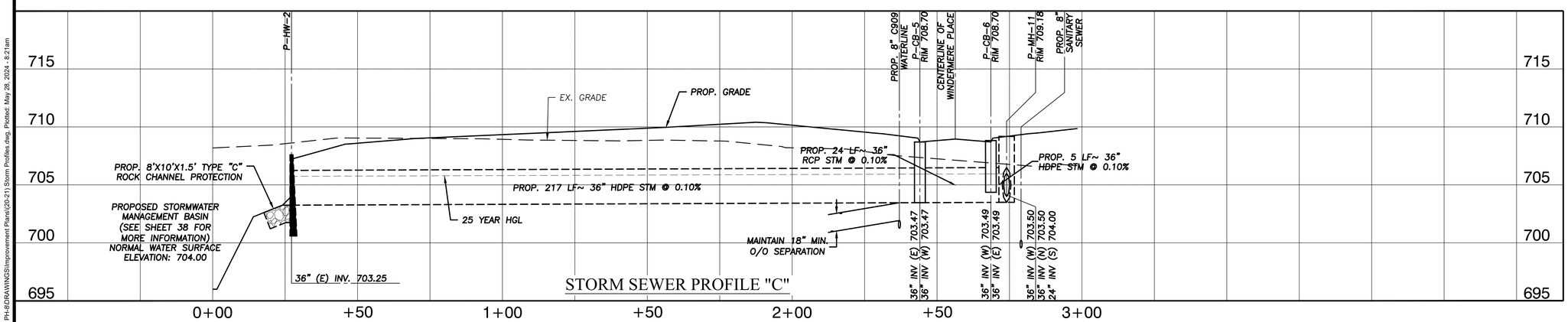
SHEET 19 OF 52

JOB NO. 20-5445-8



STORM SEWER PROFILE "A"

STORM SEWER PROFILE "B"



STORM SEWER PROFILE "C"

NOTES:

1. FULL HEIGHT HEADWALLS SHALL BE INSTALLED UNLESS RCP STORM SEWER IS USED.
2. CONTRACTOR SHALL INSTALL A CHECKMATE ULTRAFLEX INLINE CHECK VALVE.

GRAPHIC SCALE
0 20 10 40
(IN FEET)
HORIZONTAL SCALE: 1" = 20 FT.
VERTICAL SCALE: 1" = 5 FT.

REVISION	DATE:	BY:	DESCRIPTION:
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	02/27/2024	CLH	REVISED CITY COMMENTS
	04/23/2024	CLH	REVISED PER CITY COMMENTS
	05/24/2024	CLH	REVISED PER CITY COMMENTS

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CHECKED BY: CLH

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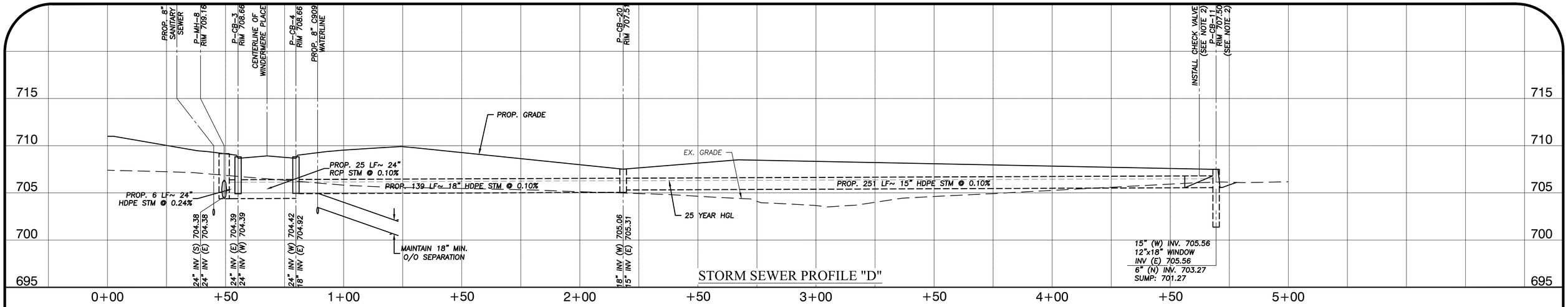
WESTLAKE, OH 44145

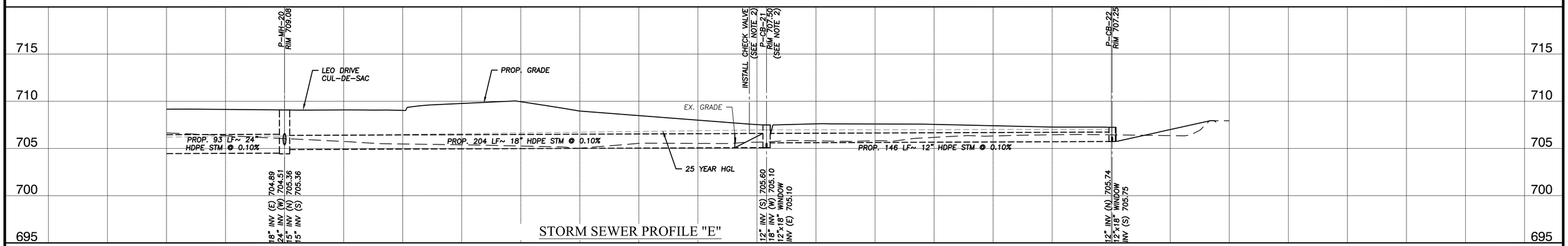
HAMPTON PLACE SUBDIVISION - PHASE 8
STORM PROFILES
CITY OF NORTH RIDGEVILLE, COUNTY OF LORAIN, STATE OF OHIO

SHEET 20 OF 52
JOB NO. 20-5445-8

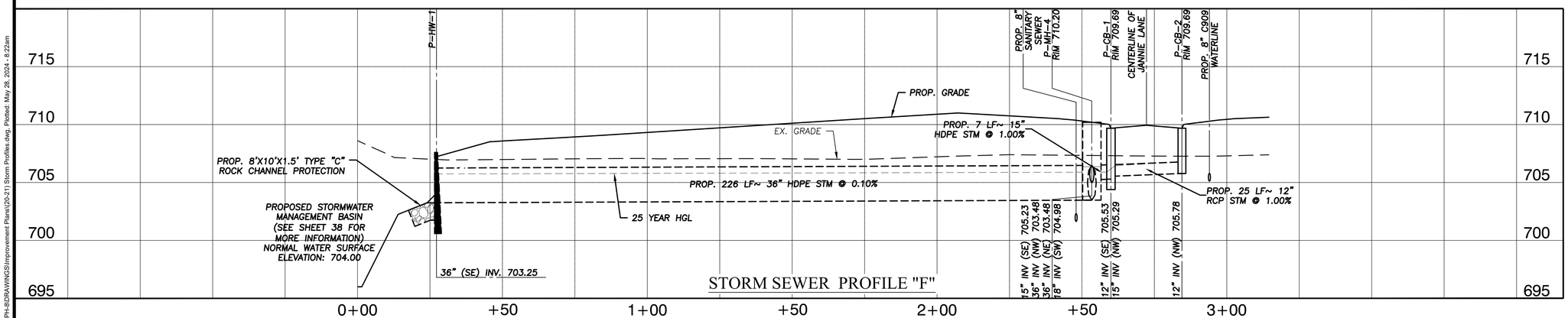
J:\20\5445-8 Hampton Place PH-8\DRAWINGS\Improvement Plans\(20-21) Storm Profiles.dwg, Plotted: May 28, 2024 - 8:21am



STORM SEWER PROFILE "D"



STORM SEWER PROFILE "E"



STORM SEWER PROFILE "F"

NOTES:

1. FULL HEIGHT HEADWALLS SHALL BE INSTALLED UNLESS RCP STORM SEWER IS USED.
2. CONTRACTOR SHALL INSTALL A CHECKMATE ULTRAFLEX INLINE CHECK VALVE.

GRAPHIC SCALE
0 20
10 40
(IN FEET)
HORIZONTAL SCALE: 1" = 20 FT.
VERTICAL SCALE: 1" = 5 FT.

REVISION	DATE:	BY:	DESCRIPTION:
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	02/27/2024	CLH	REVISED CITY COMMENTS
	04/23/2024	CLH	REVISED PER CITY COMMENTS
	05/24/2024	CLH	REVISED PER CITY COMMENTS

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CHECKED BY: CLH

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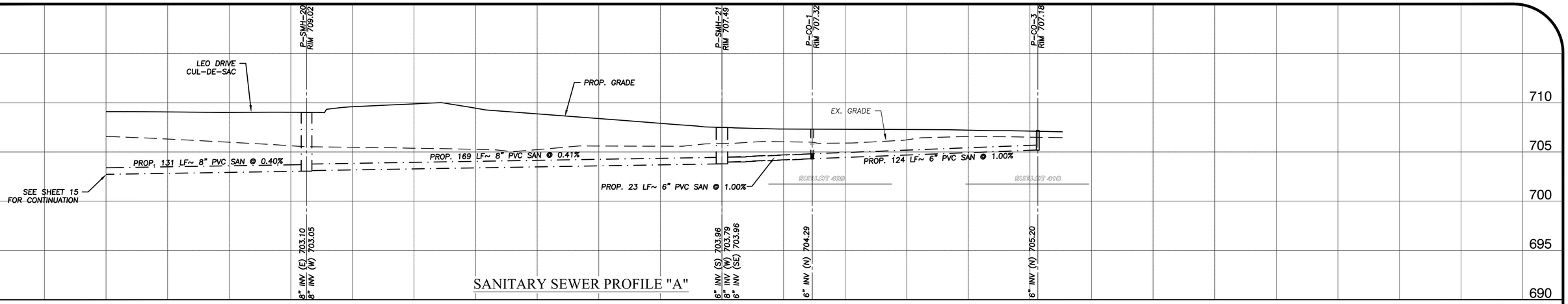
HAMPTON PLACE SUBDIVISION - PHASE 8
STORM PROFILES
CITY OF NORTH RIDGEVILLE, COUNTY OF LORAIN, STATE OF OHIO

SHEET 21 OF 52
JOB NO. 20-5445-8

J:\2054\5445-8 Hampton Place PH-8\DRAWINGS\Improvement Plans\(20-21) Storm Profiles.dwg, Plotted: May 29, 2024 - 8:22am



SANITARY SEWER PROFILE "A"

GRAPHIC SCALE
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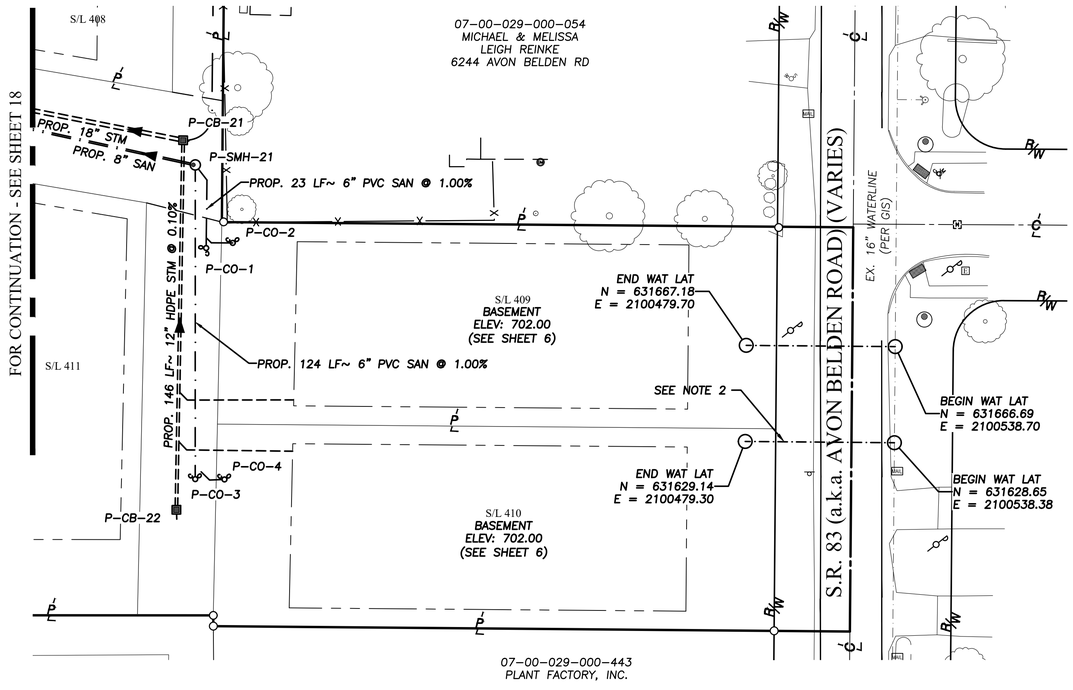
(IN FEET)
HORIZONTAL SCALE: 1" = 20 FT.
VERTICAL SCALE: 1" = 5 FT.



SUBLOTS 409 & 410 PROPOSED WATER LATERALS PLAN

GRAPHIC SCALE
0 30
15 60
(IN FEET)
SCALE: 1" = 30'

NOTES:

1. IF THERE IS LESS THAN 2.5 FEET FROM THE INVERT OF THE SANITARY SEWER MAIN TO THE BASEMENT FLOOR ELEVATION, THE HOUSE WILL REQUIRE HUNG SEWERS OR GRINDER PUMPS. SUBLOTS 409 & 410 WILL REQUIRE HUNG SEWERS OR GRINDER PUMPS.
2. CONTRACTOR SHALL DIRECTIONAL BORE THE PROPOSED WATER LATERALS UNDER STATE ROUTE 83.

REVISION	DATE:	BY:	DESCRIPTION:
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	02/27/2024	CLH	REVISED CITY COMMENTS
	04/23/2024	CLH	REVISED PER CITY COMMENTS
	05/24/2024	CLH	REVISED PER CITY COMMENTS

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23550 CENTER RIDGE ROAD
WESTLAKE, OH 44145

HAMPTON PLACE SUBDIVISION - PHASE 8
SANITARY PROFILE
CITY OF NORTH RIDGEVILLE, COUNTY OF LORAIN, STATE OF OHIO

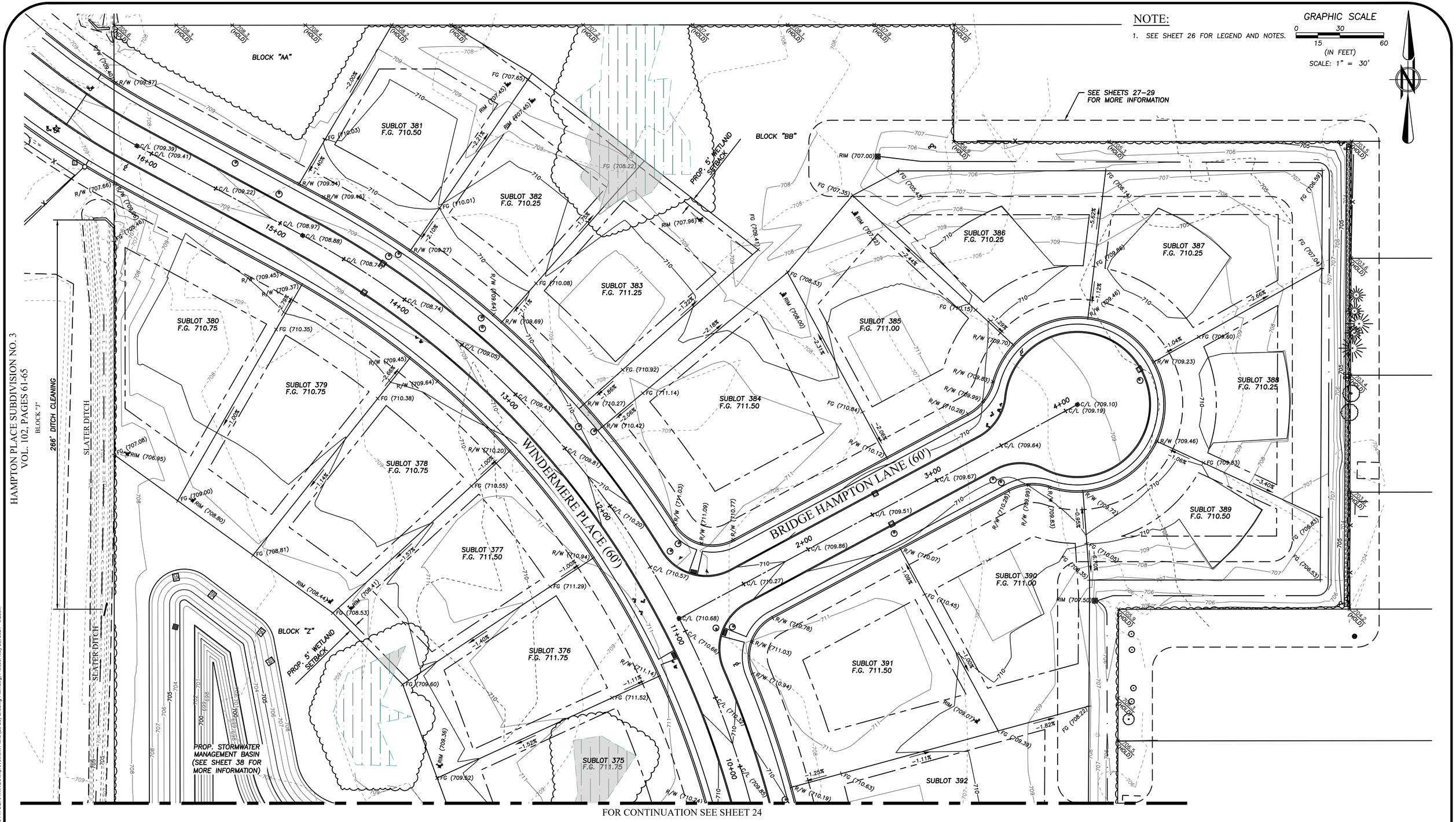
SHEET 22 OF 52
JOB NO. 20-5445-8

I:\20544S-8 Hampton Place PH-8\DRAWINGS\Improvement Plans\(22) Sanitary Profile.dwg, Plotted: May 28, 2024 - 8:23am

NOTE:

1. SEE SHEET 26 FOR LEGEND AND NOTES.

GRAPHIC SCALE
0 30
15 60
(IN FEET)
SCALE: 1" = 30'



FOR CONTINUATION SEE SHEET 24

HAMPTON PLACE SUBDIVISION NO. 3
VOL. 102, PAGES 61-65
BLOCK "J"

J:\2054458 Hampton Place PH-8\DRAWINGS\Improvement Plans\(23-26) Grading Plan.dwg, Plotted: May 29, 2024 - 8:23am

REVISION			
DATE:			
11/17/2023	CLH	ISSUE TO CITY FOR ENGINEERING REVIEW	
12/19/2023	CLH	ISSUE TO OEPA FOR REVIEW	
02/27/2024	CLH	REVISED CITY COMMENTS	
04/23/2024	CLH	REVISED PER CITY COMMENTS	
05/24/2024	CLH	REVISED PER CITY COMMENTS	

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CHECKED BY: CLH

BRAMHALL
ENGINEERING AND SURVEYING COMPANY
801 MOORE ROAD AVON, OHIO 44011
(440) 934 - 7878 (440) 934 - 7879 FAX

PREPARED FOR:
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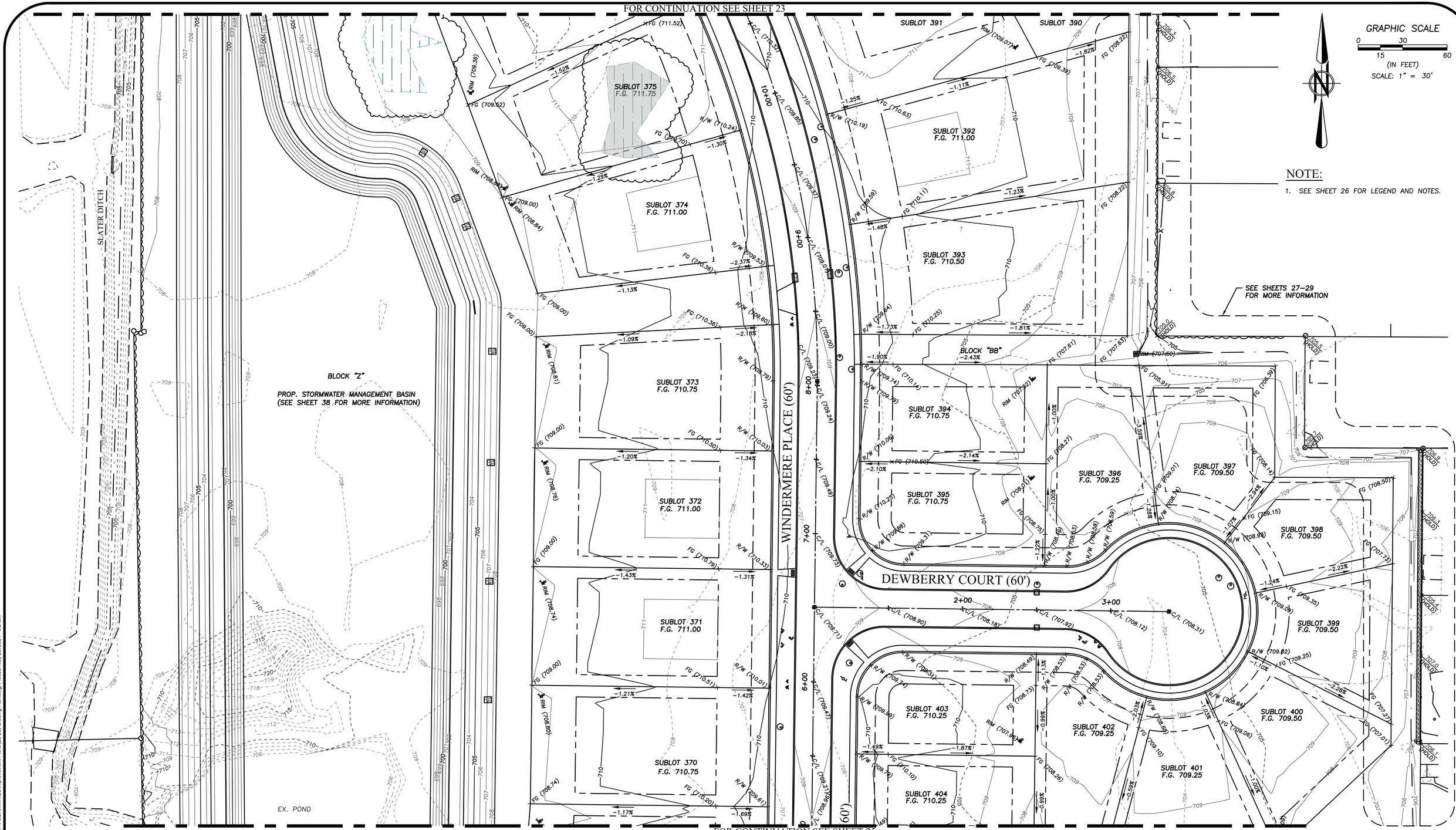
23550 CENTER RIDGE ROAD
WESTLAKE, OH 44145

HAMPTON PLACE SUBDIVISION - PHASE 8
GRADING PLAN
CITY OF NORTH RIDGEVILLE, COUNTY OF LORAIN, STATE OF OHIO

SHEET 23 OF 52
JOB NO. 20-5445-8

FOR CONTINUATION SEE SHEET 23



GRAPHIC SCALE
0 30
15 60
(IN FEET)
SCALE: 1" = 30'

NOTE:

1. SEE SHEET 26 FOR LEGEND AND NOTES.

FOR CONTINUATION SEE SHEET 25

REVISION			DATE:
	CLH	ISSUE TO CITY FOR ENGINEERING REVIEW	11/17/2023
	CLH	ISSUE TO OEPA FOR REVIEW	12/19/2023
	CLH	REVISED CITY COMMENTS	02/27/2024
	CLH	REVISED PER CITY COMMENTS	04/23/2024
	CLH	REVISED PER CITY COMMENTS	05/24/2024

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CHECKED BY: CLH

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PREPARED FOR:

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23550 CENTER RIDGE ROAD
WESTLAKE, OH 44145

HAMPTON PLACE SUBDIVISION - PHASE 8 GRADING PLAN

CITY OF NORTH RIDGEVILLE, COUNTY OF LORAIN, STATE OF OHIO

SHEET 24 OF 52

JOB NO. 20-5445-8

J:\20544S-8 Hampton Place PH-8\DRAWINGS\Improvement Plans\(23-26) Grading Plan.dwg, Plotted: May 28, 2024 - 8:24am

FOR CONTINUATION SEE SHEET 24

GRAPHIC SCALE
0 30
15 60
(IN FEET)
SCALE: 1" = 30'

BLOCK "Z"
PROP. STORMWATER MANAGEMENT BASIN
(SEE SHEET 38 FOR MORE INFORMATION)
EX. POND

NOTE:
1. SEE SHEET 26 FOR LEGEND AND NOTES.

SUBLOT 370 F.G. 710.75
SUBLOT 369 F.G. 711.00
SUBLOT 368 F.G. 711.25
SUBLOT 367 F.G. 712.75
SUBLOT 366 F.G. 713.00
SUBLOT 365 F.G. 713.25
S/L 329
SUBLOT 404 F.G. 710.25
SUBLOT 402
SUBLOT 401 F.G. 709.25
SUBLOT 400
SUBLOT 405 F.G. 711.00
SUBLOT 406 F.G. 711.25
SUBLOT 407 F.G. 710.50
SUBLOT 408 F.G. 710.25
SUBLOT 414 F.G. 711.00
SUBLOT 415 F.G. 711.50
SUBLOT 416 F.G. 712.00
SUBLOT 417 F.G. 712.50
SUBLOT 418 F.G. 713.00
SUBLOT 419 F.G. 713.50
S/L 364
S/L 363
SUBLOT 413 F.G. 710.75
SUBLOT 412 F.G. 710.25
SUBLOT 411 F.G. 710.25
SUBLOT 409
SUBLOT 410

WINDERMERE PLACE (60')
LEO DRIVE (60')
JANNIE LANE (60')
BLOCK "BB"

SEE SHEETS 27-29 FOR MORE INFORMATION

FOR CONTINUATION SEE SHEET 26

HAMPTON PLACE SUBDIVISION NO. 7
VOL. 113, PAGES 26-29

REVISION			
DATE:			
11/17/2023	CLH	ISSUE TO CITY FOR ENGINEERING REVIEW	
12/19/2023	CLH	ISSUE TO OEPA FOR REVIEW	
02/27/2024	CLH	REVISED CITY COMMENTS	
04/23/2024	CLH	REVISED PER CITY COMMENTS	
05/24/2024	CLH	REVISED PER CITY COMMENTS	

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23550 CENTER RIDGE ROAD
WESTLAKE, OH 44145

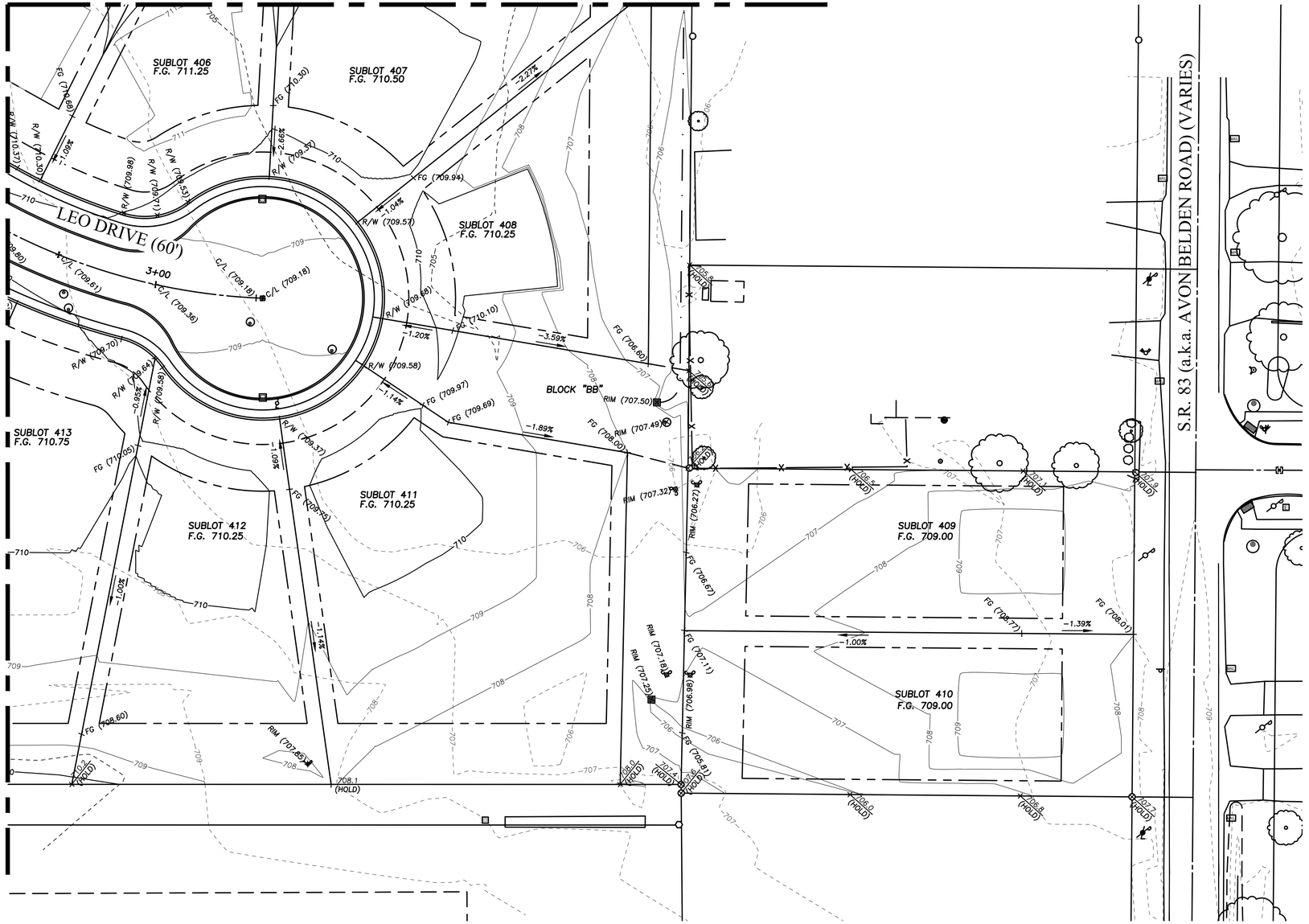
HAMPTON PLACE SUBDIVISION - PHASE 8 GRADING PLAN

CITY OF NORTH RIDGEVILLE, COUNTY OF LORAIN, STATE OF OHIO

SHEET 25 OF 52
JOB NO. 20-5445-8

J:\2054\5-8 Hampton Place PH-8\DRAWINGS\Improvement Plans\(23-29) Grading Plan.dwg, Plotted: May 29, 2024 - 8:25am

FOR CONTINUATION SEE SHEET 25



LEGEND

- PROPOSED CENTERLINE ELEVATION
- PROPOSED RIGHT–OF–WAY ELEVATION
- PROPOSED RIM ELEVATION
- EXISTING SPOT GRADE ELEVATION
- FINAL GRADE ELEVATION
- PROPOSED FLOWLINE ELEVATION
- EXISTING CONTOURS (PER FIELD TOPO GATHERED IN APRIL OF 2021)
- PROPOSED CONTOURS (PHASE 8 IMPROVEMENTS)
- PHASE 7 IMPROVEMENTS CONTOURS

NOTES:

1. SEE PLAN AND PROFILE SHEETS FOR OTHER STORM STRUCTURES.
2. IF THERE IS LESS THAN 2.5 FEET FROM THE INVERT OF THE SANITARY SEWER MAIN TO THE BASEMENT FLOOR ELEVATION, THE HOUSE WILL REQUIRE HUNG SEWERS OR GRINDER PUMPS.
3. ALL REAR YARD STORM DRAINAGE FOR EACH LOT WILL BE DETAILED ON THE INDIVIDUAL HOUSE PLOT PLANS. EACH SUBLOT SHALL HAVE A YARD DRAIN UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER. RIM ELEVATION SHOWN ON YARD DRAINS IS SHOWN FOR DRAINAGE PURPOSES AND IS SUBJECT TO CHANGE PER FINAL INDIVIDUAL HOUSE PLOT PLANS.
4. EACH SUBLOT SHALL REQUIRE A SUMP PUMP PER CITY ORDINANCE.
5. CONTRACTOR SHALL INSTALL EROSION CONTROL BLANKETS IN AREAS THAT ARE GREATER THAN 3:1 SLOPES.

GRAPHIC SCALE
0 30
15 60
(IN FEET)
SCALE: 1" = 30'

REVISION	DATE:		
	11/17/2023	CLH	ISSUE TO CITY FOR ENGINEERING REVIEW
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	02/27/2024	CLH	REVISED CITY COMMENTS
	04/23/2024	CLH	REVISED PER CITY COMMENTS
	05/24/2024	CLH	REVISED PER CITY COMMENTS

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CHECKED BY: CLH

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PREPARED FOR:
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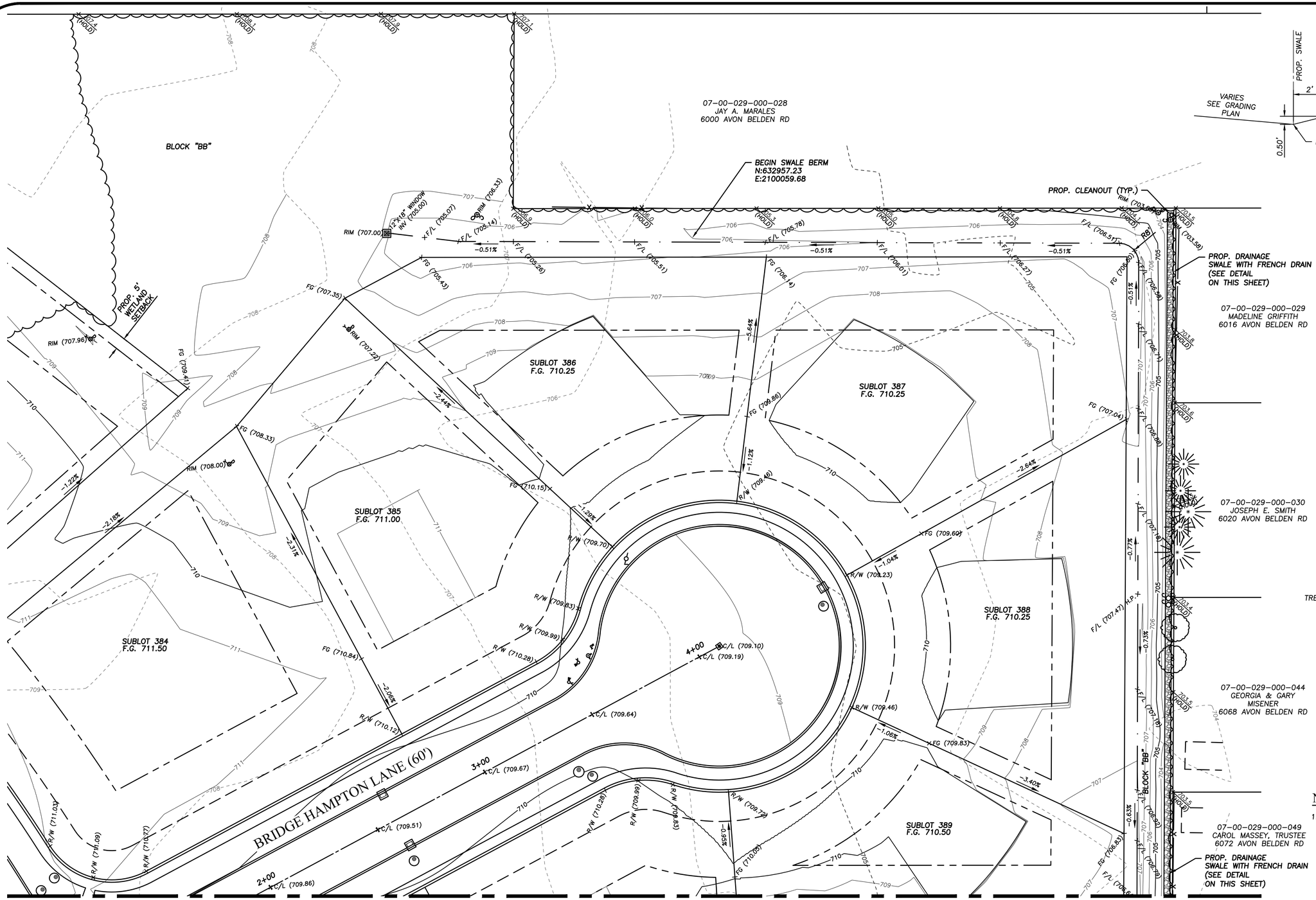
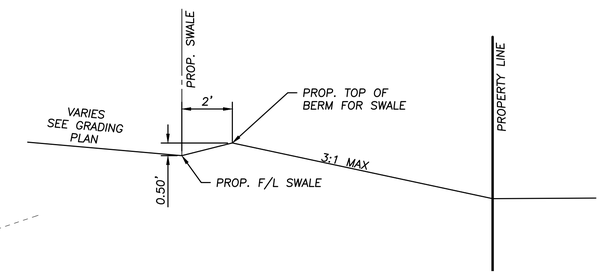
23550 CENTER RIDGE ROAD
WESTLAKE, OH 44145

HAMPTON PLACE SUBDIVISION - PHASE 8
GRADING PLAN
CITY OF NORTH RIDGEVILLE, COUNTY OF LORAIN, STATE OF OHIO

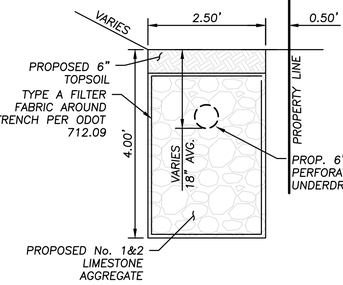
SHEET 26 OF 52
JOB NO. 20-5445-8

J:\2005445-8 Hampton Place PH-8\DRAWINGS\Improvement Plans\(23-28) Grading Plan.dwg, Plotted: May 28, 2024 - 8:25am





SWALE BERM SECTION
N.T.S.



DRAINAGE SWALE SECTION WITH FRENCH DRAIN
N.T.S.

NOTE:

1. SEE SHEET 26 FOR LEGEND AND NOTES.

GRAPHIC SCALE
0 20
10 40
(IN FEET)
SCALE: 1" = 20'

FOR CONTINUATION SEE SHEET 28

REVISION			DATE:
1	CLH	ISSUE TO CITY FOR ENGINEERING REVIEW	11/17/2023
2	CLH	ISSUE TO OEPA FOR REVIEW	12/19/2023
3	CLH	REVISED CITY COMMENTS	02/27/2024
4	CLH	REVISED PER CITY COMMENTS	04/23/2024
5	CLH	REVISED PER CITY COMMENTS	05/24/2024

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CHECKED BY: CLH

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PREPARED FOR:

VALORE PROPERTIES, INC.
23550 CENTER RIDGE ROAD
WESTLAKE, OH 44145

HAMPTON PLACE SUBDIVISION - PHASE 8
ENLARGED GRADING DETAILS

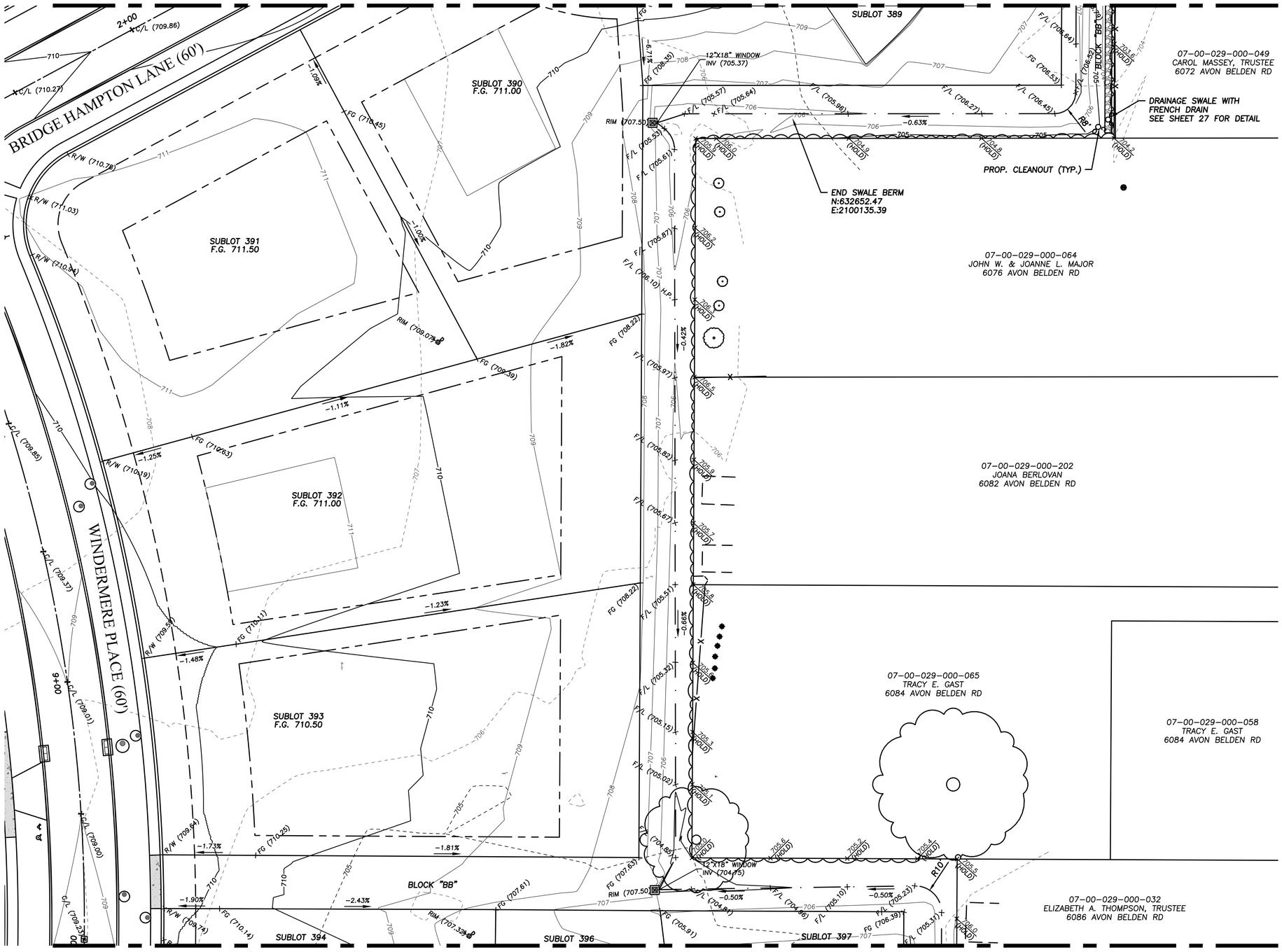
CITY OF NORTH RIDGEVILLE, COUNTY OF LORAIN, STATE OF OHIO

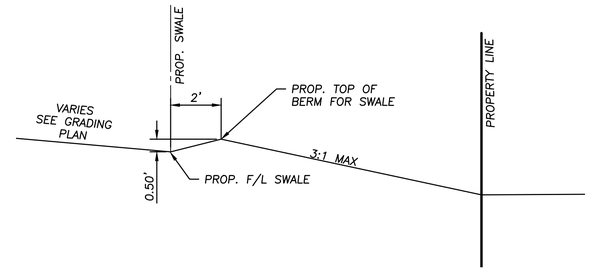
SHEET 27 OF 52

JOB NO. 20-5445-8

J:\2054\5-8 Hampton Place PH-8\DRAWINGS\Improvement Plans\(27-30) Enlarged Grading Details.dwg, Plotted: May 28, 2024 - 8:27am

FOR CONTINUATION SEE SHEET 27





SWALE BERM SECTION
N.T.S.

NOTE:

1. SEE SHEET 26 FOR LEGEND AND NOTES.

GRAPHIC SCALE
0 20
10 40
(IN FEET)
SCALE: 1" = 20'

FOR CONTINUATION SEE SHEET 29

REVISION			DATE:
	CLH	ISSUE TO CITY FOR ENGINEERING REVIEW	11/17/2023
	CLH	ISSUE TO OEPA FOR REVIEW	12/19/2023
	CLH	REVISED CITY COMMENTS	02/27/2024
	CLH	REVISED PER CITY COMMENTS	04/23/2024
	CLH	REVISED PER CITY COMMENTS	05/24/2024

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CHECKED BY: CLH

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PREPARED FOR:

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23550 CENTER RIDGE ROAD
WESTLAKE, OH 44145

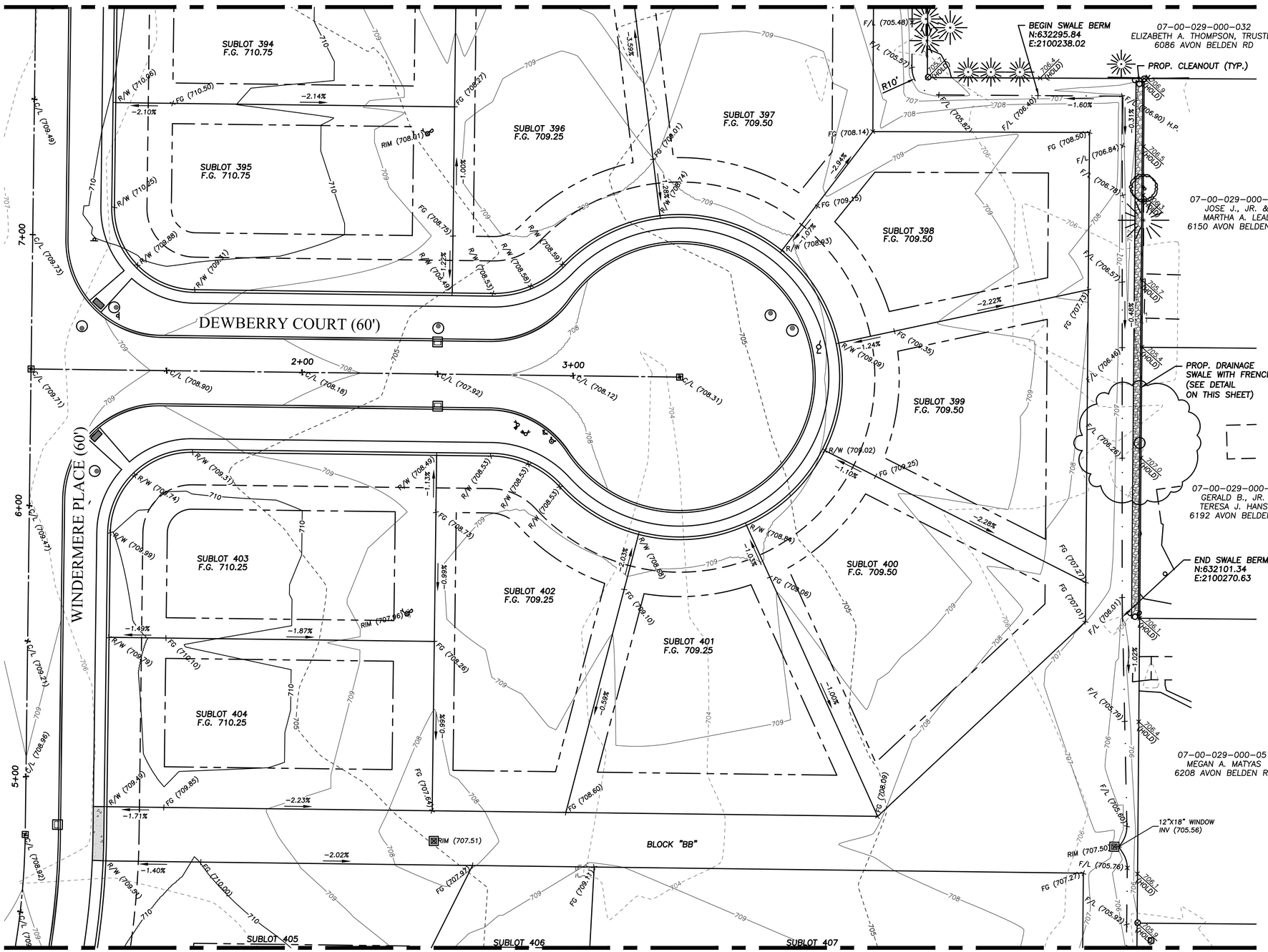
HAMPTON PLACE SUBDIVISION - PHASE 8
ENLARGED GRADING DETAILS
CITY OF NORTH RIDGEVILLE, COUNTY OF LORAIN, STATE OF OHIO

SHEET 28 OF 52

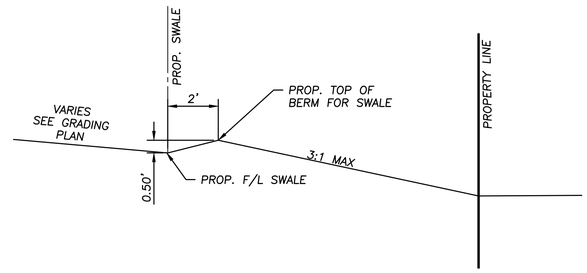
JOB NO. 20-5445-8

J:\20544S-8 Hampton Place PH-8\DRAWINGS\Improvement Plans\(27-30) Enlarged Grading Details.dwg, Plotted: May 28, 2024 - 8:28am

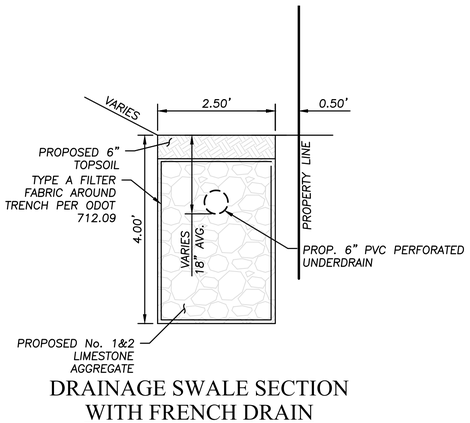
FOR CONTINUATION SEE SHEET 28



FOR CONTINUATION SEE SHEET 30



SWALE BERM SECTION
N.T.S.



DRAINAGE SWALE SECTION
WITH FRENCH DRAIN
N.T.S.

NOTE:

1. SEE SHEET 26 FOR LEGEND AND NOTES.

GRAPHIC SCALE
0 20
10 40
(IN FEET)
SCALE: 1" = 20'

REVISION	DATE:		
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	12/19/2023	CLH	ISSUE TO OEPA FOR REVIEW
	02/27/2024	CLH	REVISED CITY COMMENTS
	04/23/2024	CLH	REVISED PER CITY COMMENTS
	05/24/2024	CLH	REVISED PER CITY COMMENTS

DRAWN BY: SJM

CHECKED BY: CLH

BRAMHALL
ENGINEERING AND SURVEYING COMPANY
801 MOORE ROAD AVON, OHIO 44011
(440) 934 - 7878 (440) 934 - 7879 FAX

PREPARED FOR:
VALORE PROPERTIES, INC.
23550 CENTER RIDGE ROAD
WESTLAKE, OH 44145

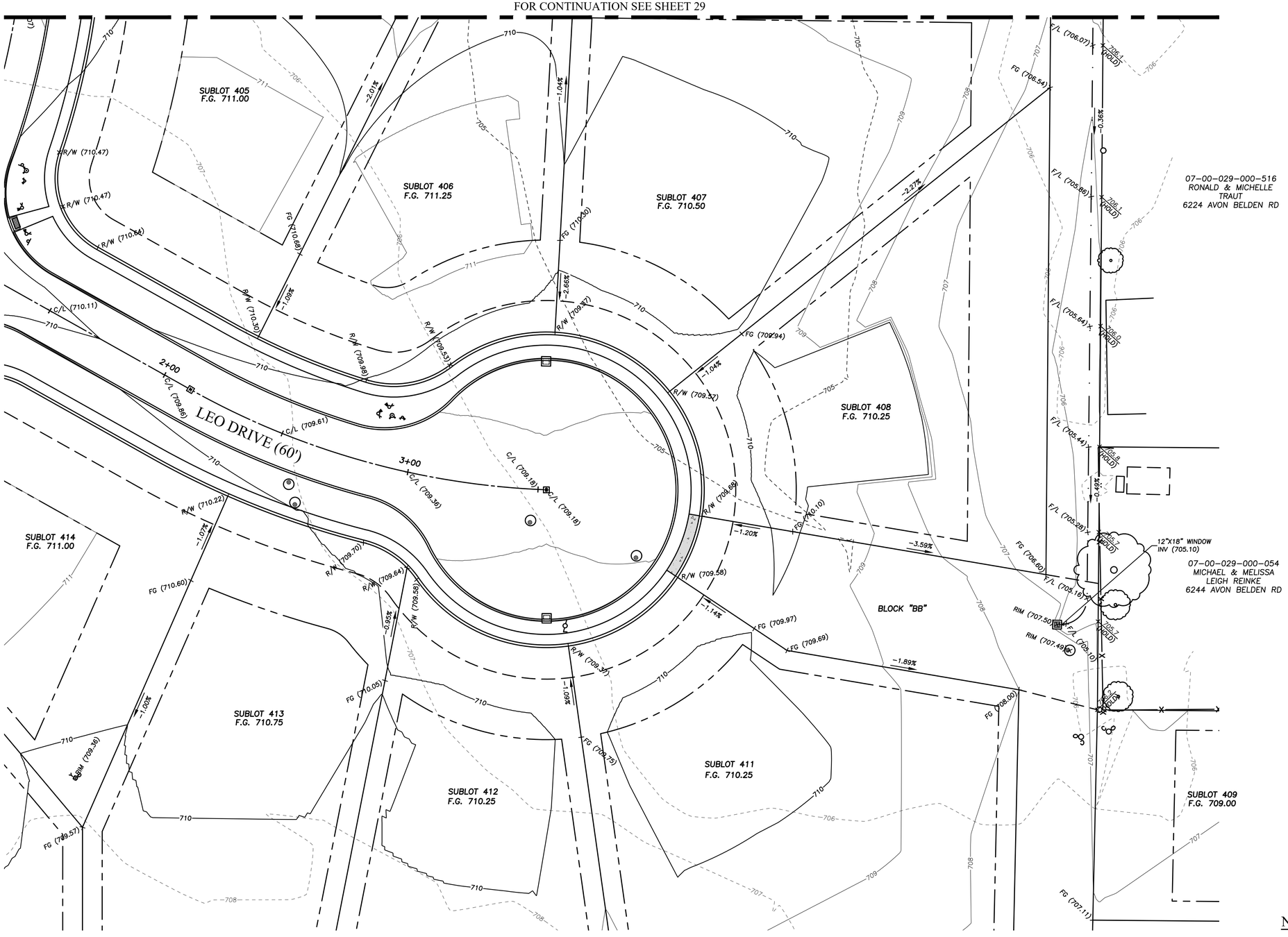
HAMPTON PLACE SUBDIVISION - PHASE 8
ENLARGED GRADING DETAILS
CITY OF NORTH RIDGEVILLE, COUNTY OF LORAIN, STATE OF OHIO

SHEET 29 OF 52

JOB NO. 20-5445-8

J:\2054\5-8 Hampton Place PH-8\DRAWINGS\Improvement Plans\(27-30) Enlarged Grading Details.dwg, Plotted: May 29, 2024 - 8:29am

FOR CONTINUATION SEE SHEET 29



NOTE:

1. SEE SHEET 26 FOR LEGEND AND NOTES.

GRAPHIC SCALE
0 20
10 40
(IN FEET)
SCALE: 1" = 20'

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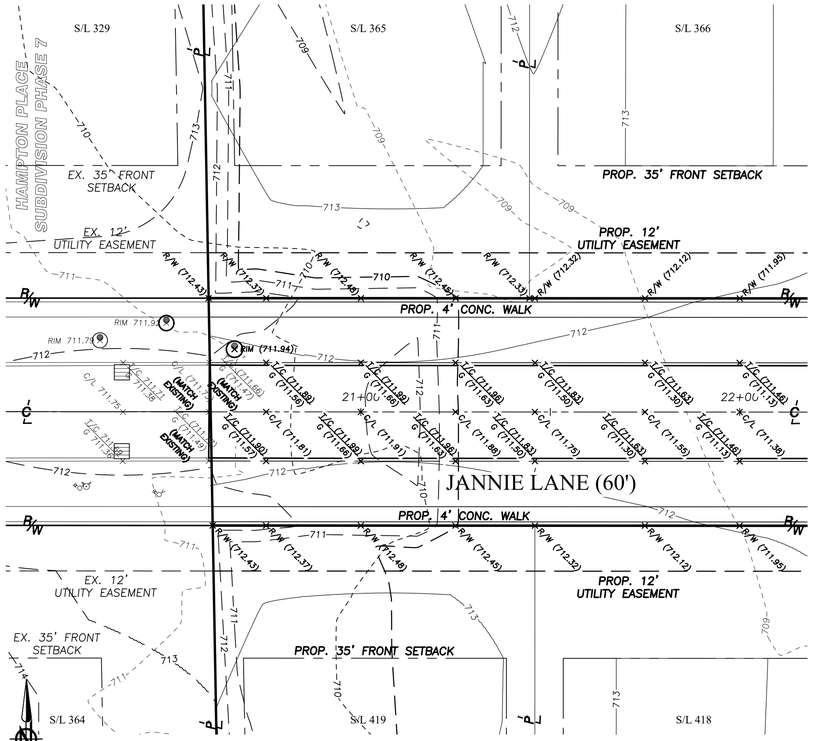
HAMPTON PLACE SUBDIVISION - PHASE 8
ENLARGED GRADING DETAILS
CITY OF NORTH RIDGEVILLE, COUNTY OF LORAIN, STATE OF OHIO

SHEET 30 OF 52

JOB NO. 20-5445-8

I:\2054\5-8 Hampton Place PH 8\DRAWINGS\Improvement Plans\(27-30) Enlarged Grading Details.dwg, Plotted: May 28, 2024 - 8:30am

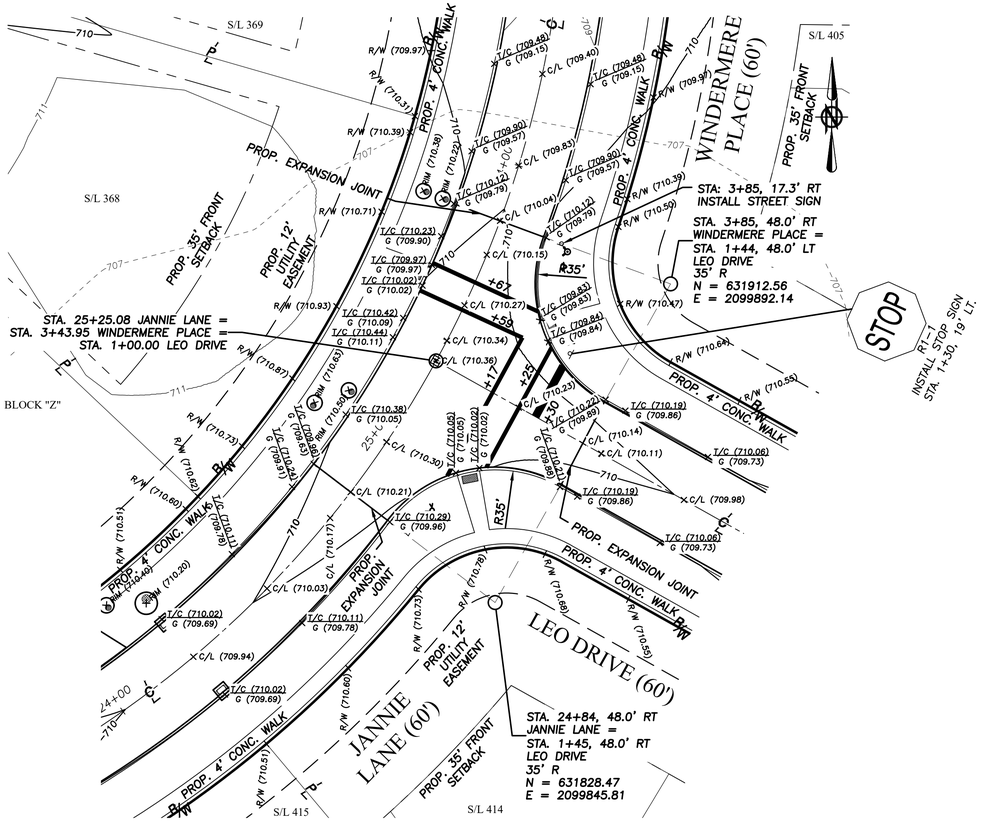


1 JANNIE LANE PAVEMENT CONNECTION

SCALE: 1" = 20'

LEGEND

- T/C (100.00) / G (100.00) — TOP OF CURB ELEVATION / GUTTER ELEVATION
- RIM: (705.96) — PROPOSED RIM ELEVATION
- C/L (705.96) — PROPOSED CENTERLINE ELEVATION
- R/W: (706.45) — PROPOSED RIGHT-OF-WAY ELEVATION
- F/L: (705.26) — PROPOSED FLOW LINE ELEVATION
- H.P. — HIGH POINT
- EXISTING CONTOURS (PER FIELD TOPO GATHERED IN DECEMBER OF 2022)
- PROPOSED CONTOURS (PHASE 8 IMPROVEMENTS)
- PHASE 7 IMPROVEMENTS CONTOURS



2 JANNIE LANE, WINDERMERE PLACE & LEO DRIVE

SCALE: 1" = 20'

STREET NAME SIGN SHEETING

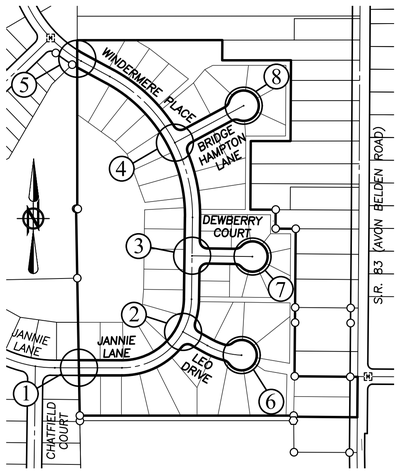
THERE SHALL BE TWO (2) SIGN FACES ON EACH SIGN BLANK – ONE ON EACH SIDE, UNLESS OTHERWISE APPROVED. ALL SHEETING SHALL BE ODOT TYPE H DIAMOND GRADE TO PROVIDE HIGH RETRORFLECTIVIT PER THE 2007 (OR CURRENT) FEDERAL HIGHWAY ADMINISTRATION AND FEDERAL MUTCD REQUIREMENTS.

LETTERING SHALL BE UPPER AND LOWER CASE A MINIMUM OF SIX (6) INCHES IN HEIGHT. THE MINIMUM SIGN HEIGHT IS NINE (9) INCHES.

LETTERING SHALL BE WHITE ON A GREEN BACKGROUND.

STREET NAME SIGN SUPPORTS

SUPPORTS FOR DOUBLE-FACED STREET NAME SIGNS SHALL BE 2-3/8" DIAMETER POSTS MADE OF HOT-DIPPED GALVANIZED STEEL PIPE. ALL SUPPORTS SHALL BE EMBEDDED IN CONCRETE CONFORMING TO ODOT CONSTRUCTION AND MATERIAL SPECIFICATIONS ITEM 499 CLASS C. SUPPORTS SHALL BE CONCRETE IN A HOLE A MINIMUM DEPTH OF THREE (3) FEE AND A DIAMETER OF TEN (10) INCHES. THE POST SHLL PROJECT A MINIMUM OF NINE (9) FEET ABOVE GROUND TO THE BOTTOM OF THE SIGN FACE.



LOCATION MAP

N.T.S.

NOTE:

1. CONTRACTOR SHALL SUBMIT A JOINTING PLAN TO THE CITY FOR APPROVAL.

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05/24/2024	CLH	REVISED PER CITY COMMENTS

DRAWN BY: SJM

CHECKED BY: CLH

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WESTLAKE, OH 44145

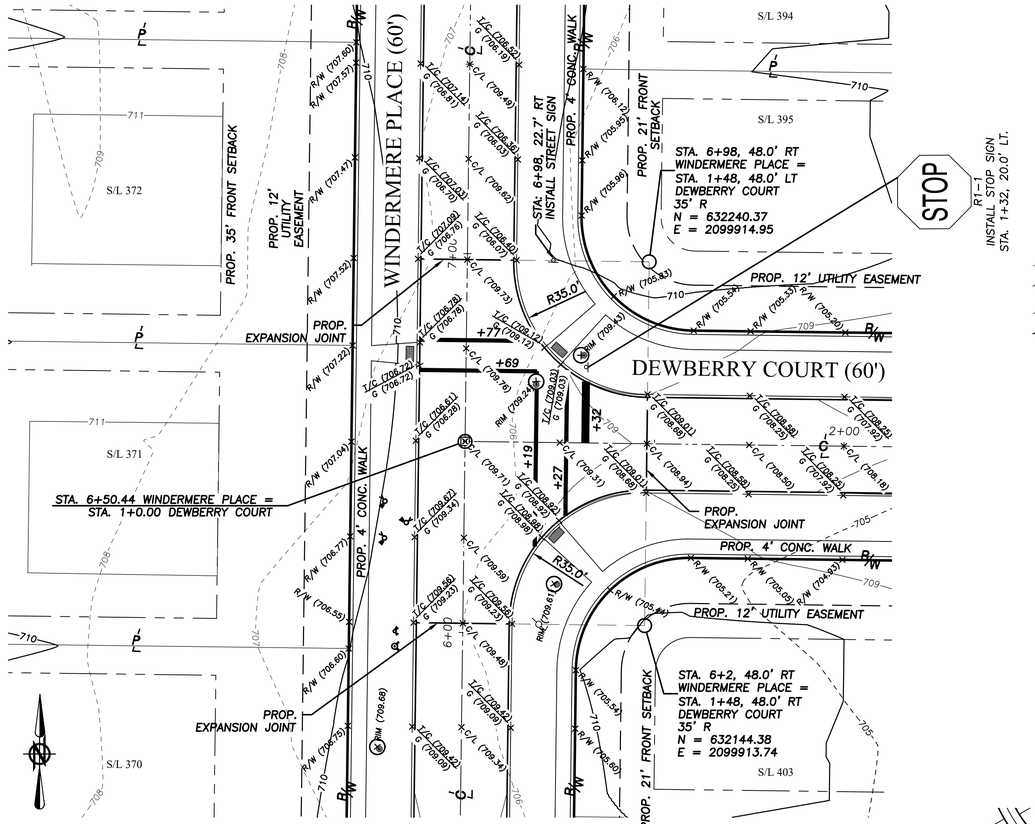
HAMPTON PLACE SUBDIVISION - PHASE 8 INTERSECTION DETAILS

CITY OF NORTH RIDGEVILLE, COUNTY OF LORAIN, STATE OF OHIO

SHEET 31 OF 52

JOB NO. 20-5445-8

J:\2054\5445-8 Hampton Place PH-8\DRAWINGS\Improvement Plans\(31-36) Intersection Details.dwg, Plotted: May 28, 2024 - 8:30am

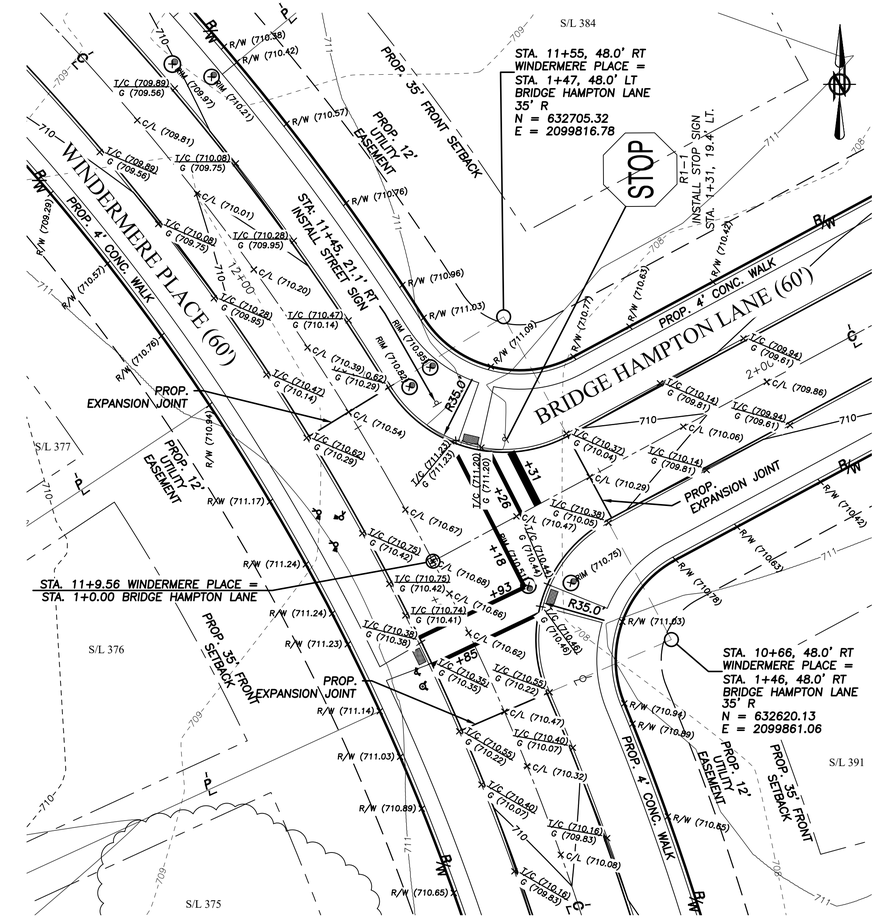


3 WINDERMERE PLACE & DEWBERRY COURT

SCALE: 1" = 20'

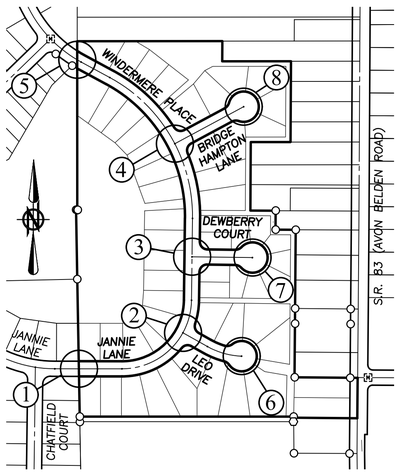
LEGEND

- T/C (100.00) — TOP OF CURB ELEVATION
- G (100.00) — GUTTER ELEVATION
- RIM: (705.96) — PROPOSED RIM ELEVATION
- C/L (705.96) — PROPOSED CENTERLINE ELEVATION
- R/W: (706.45) — PROPOSED RIGHT-OF-WAY ELEVATION
- F/L: (705.26) — PROPOSED FLOW LINE ELEVATION
- H.P. — HIGH POINT
- 604 / 605 — EXISTING CONTOURS (PER FIELD TOPO GATHERED IN DECEMBER OF 2022)
- 604 / 605 — PROPOSED CONTOURS (PHASE 8 IMPROVEMENTS)



4 WINDERMERE PLACE & BRIDGE HAMPTON LANE

SCALE: 1" = 20'



LOCATION MAP

N.T.S.

STREET NAME SIGN SUPPORTS

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	05/24/2024	CLH	REVISED PER CITY COMMENTS

DRAWN BY: SJM

CHECKED BY: CLH

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PREPARED FOR:

VALORE PROPERTIES, INC.
23550 CENTER RIDGE ROAD
WESTLAKE, OH 44145

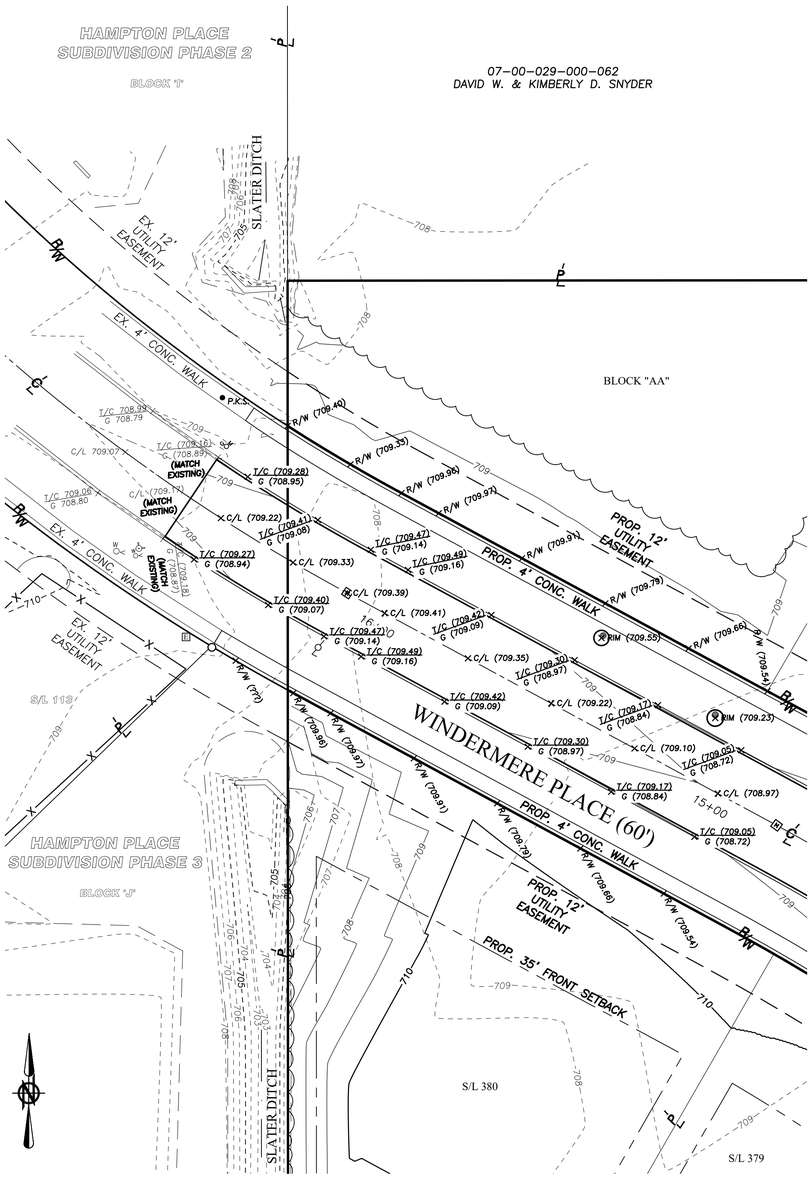
HAMPTON PLACE SUBDIVISION - PHASE 8 INTERSECTION DETAILS

CITY OF NORTH RIDGEVILLE, COUNTY OF LORAIN, STATE OF OHIO

SHEET 32 OF 52

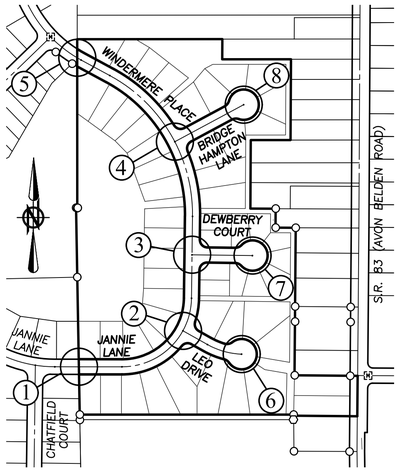
JOB NO. 20-5445-8

J:\2025445.8 Hampton Place PH-8\DRAWINGS\Improvement Plans\(31-36) Intersection Details.dwg, Plotted: May 28, 2024 - 8:31am



5 WINDERMERE PLACE PAVEMENT CONNECTION

SCALE: 1" = 20'



LOCATION MAP

N.T.S.

LEGEND

T/C (100.00)	TOP OF CURB ELEVATION
G (100.00)	GUTTER ELEVATION
RIM: (705.96)	PROPOSED RIM ELEVATION
C/L (705.96)	PROPOSED CENTERLINE ELEVATION
R/W: (706.45)	PROPOSED RIGHT-OF-WAY ELEVATION
F/L: (705.26)	PROPOSED FLOW LINE ELEVATION
H.P.	HIGH POINT
604 / 605	EXISTING CONTOURS (PER FIELD TOPO GATHERED IN DECEMBER OF 2022)
604 / 605	PROPOSED CONTOURS (PHASE 8 IMPROVEMENTS)

STREET NAME SIGN SUPPORTS

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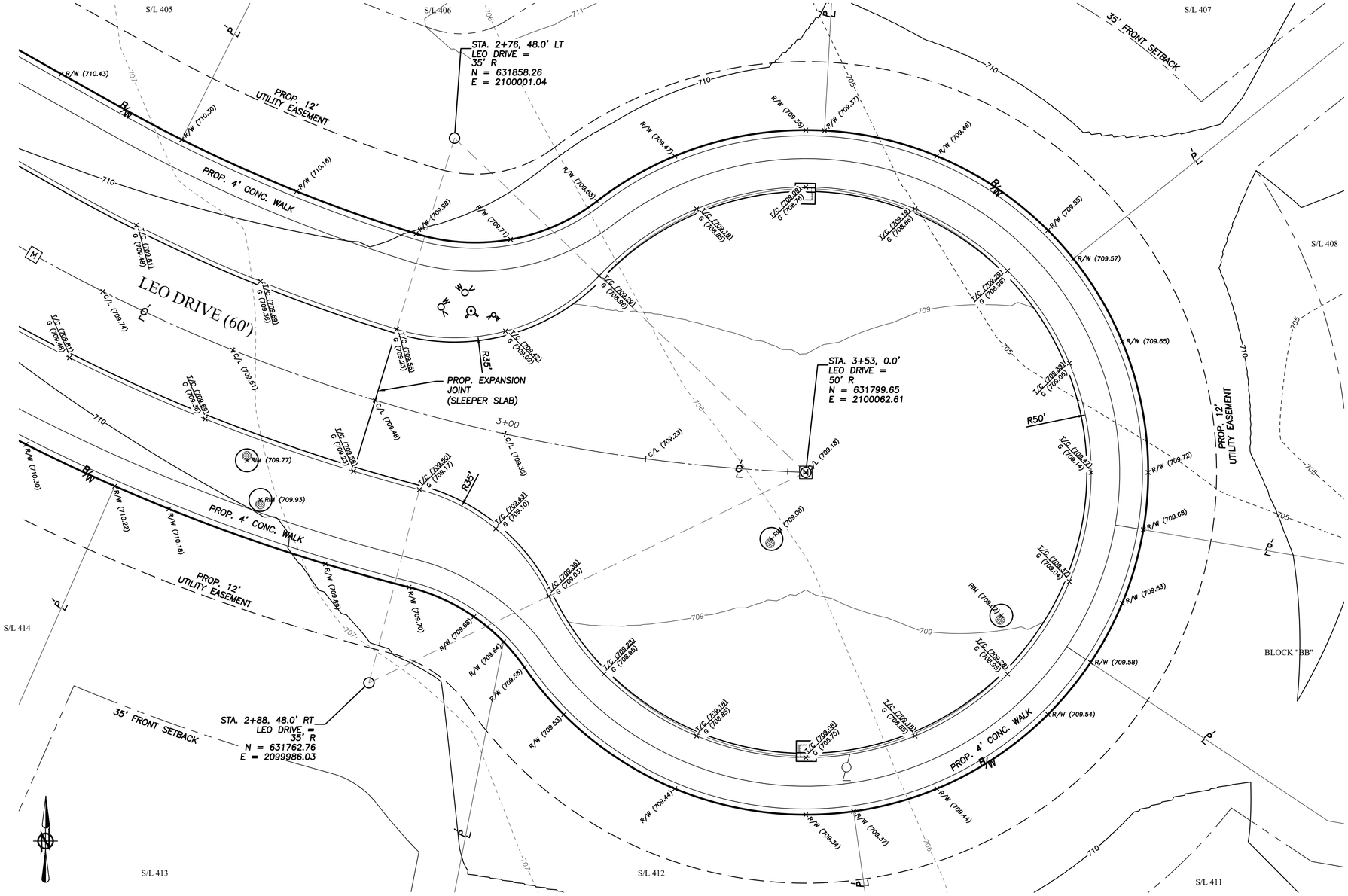
HAMPTON PLACE SUBDIVISION - PHASE 8 INTERSECTION DETAILS

CITY OF NORTH RIDGEVILLE, COUNTY OF LORAIN, STATE OF OHIO

SHEET 33 OF 52

JOB NO. 20-5445-8

J:\20544S-8 Hampton Place PH-8\DRAWINGS\Improvement Plans\(31-36) Intersection Details.dwg, Plotted: May 29, 2024 - 8:31am



LEGEND

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- RIM: (705.96) — PROPOSED RIM ELEVATION
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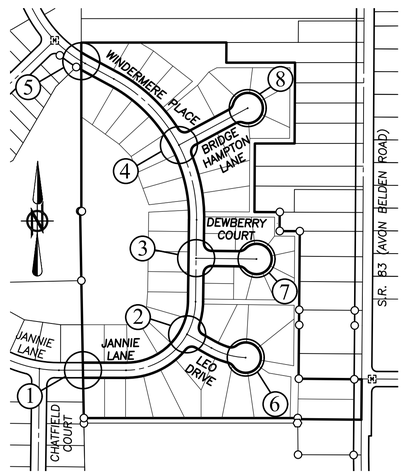
- H.P. — HIGH POINT
- 604 / 605 — EXISTING CONTOURS (PER FIELD TOPO GATHERED IN DECEMBER OF 2022)
- 604 / 605 — PROPOSED CONTOURS (PHASE 8 IMPROVEMENTS)

(6) LEO DRIVE CUL-DE-SAC

SCALE: 1" = 10'



LOCATION MAP

N.T.S.

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HAMPTON PLACE SUBDIVISION - PHASE 8
INTERSECTION DETAILS

CITY OF NORTH RIDGEVILLE, COUNTY OF LORAIN, STATE OF OHIO

SHEET 34 OF 52

JOB NO. 20-5445-8

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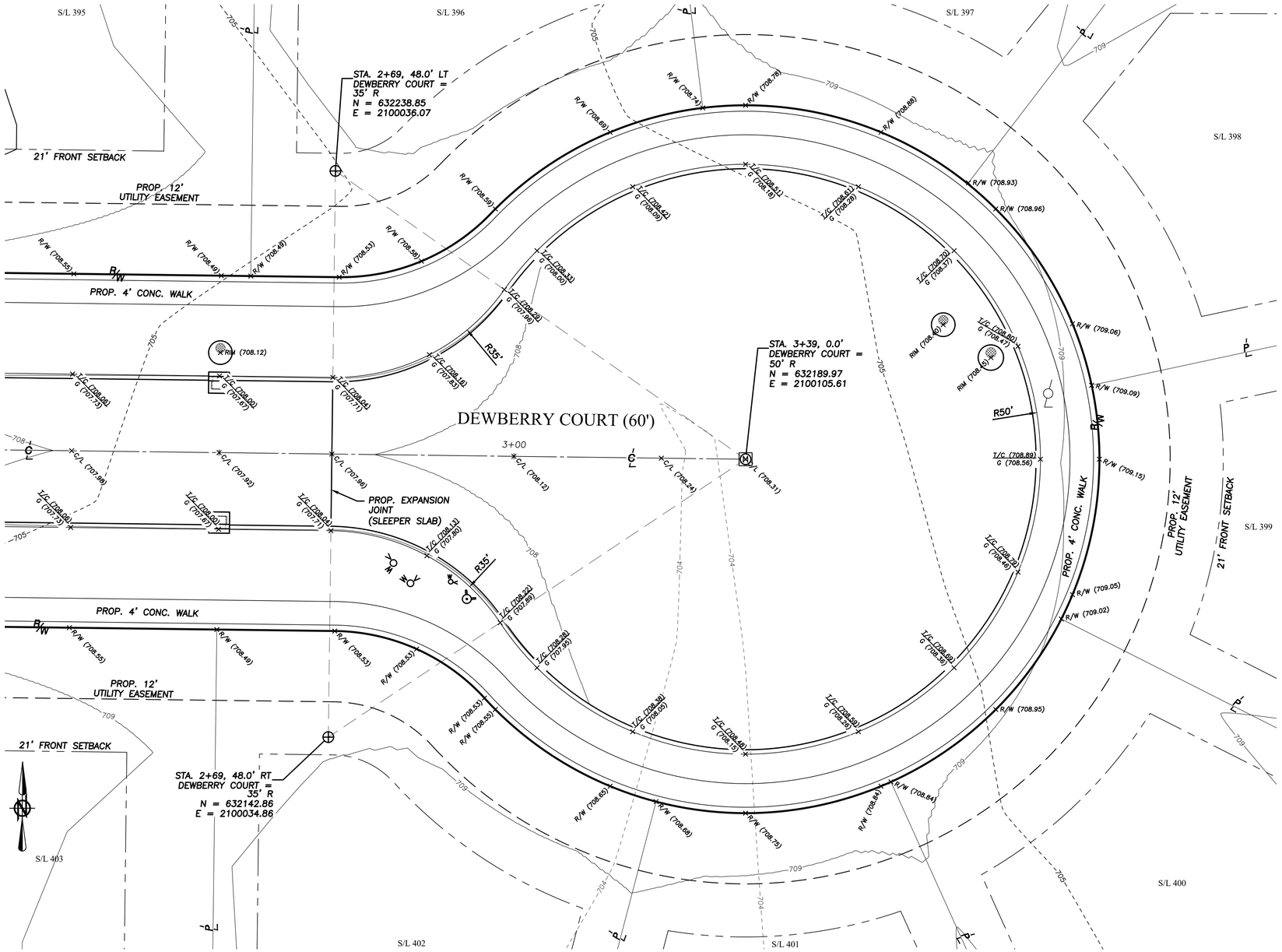

7

DEWBERRY COURT
CUL-DE-SAC

SCALE: 1" = 10'

LEGEND

T/C (100.00) / G (100.00)	TOP OF CURB ELEVATION / GUTTER ELEVATION
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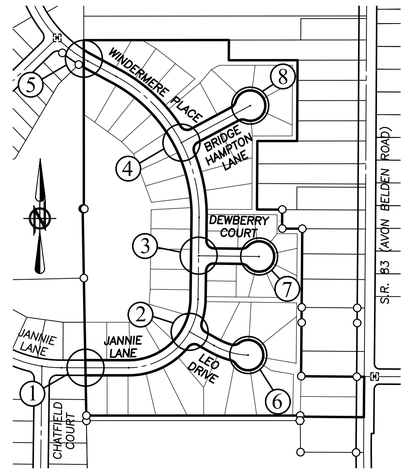

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HAMPTON PLACE SUBDIVISION - PHASE 8
INTERSECTION DETAILS

CITY OF NORTH RIDGEVILLE, COUNTY OF LORAIN, STATE OF OHIO

SHEET 35 OF 52

JOB NO. 20-5445-8

J:\20544S-8 Hampton Place PH-8\DRAWINGS\Improvement Plans\(31-35) Intersection Details.dwg, Plotted: May 28, 2024 - 8:32am

LEGEND

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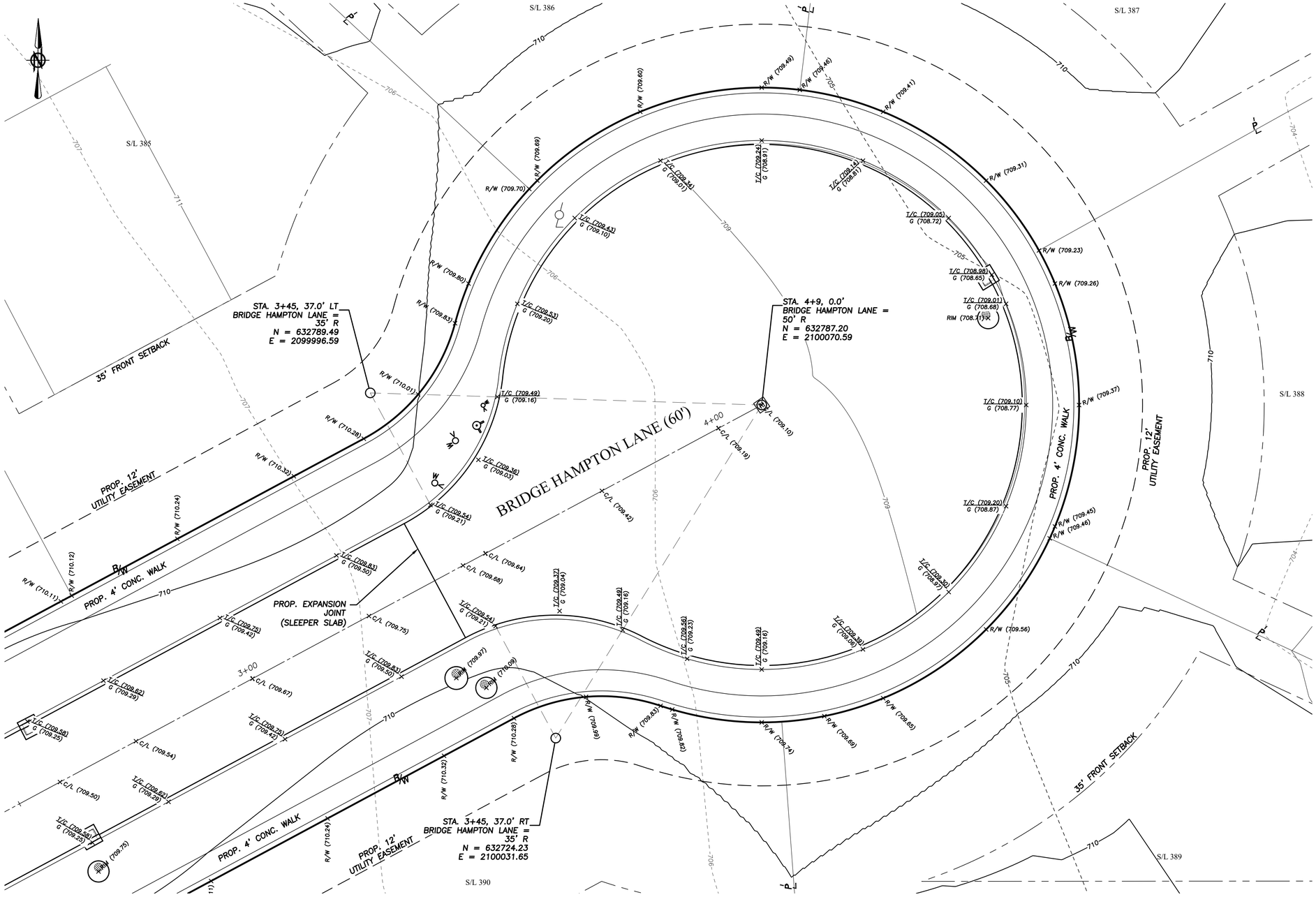

NOTE:

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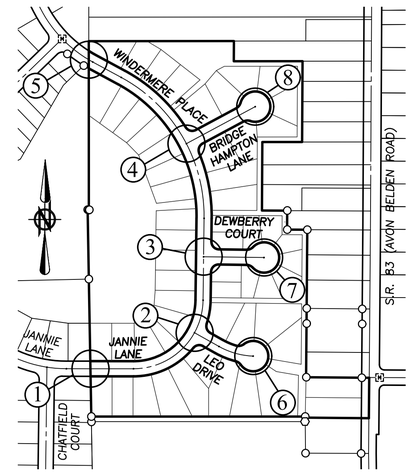
8 BRIDGE HAMPTON LANE CUL-DE-SAC
SCALE: 1" = 10'



LOCATION MAP
N.T.S.

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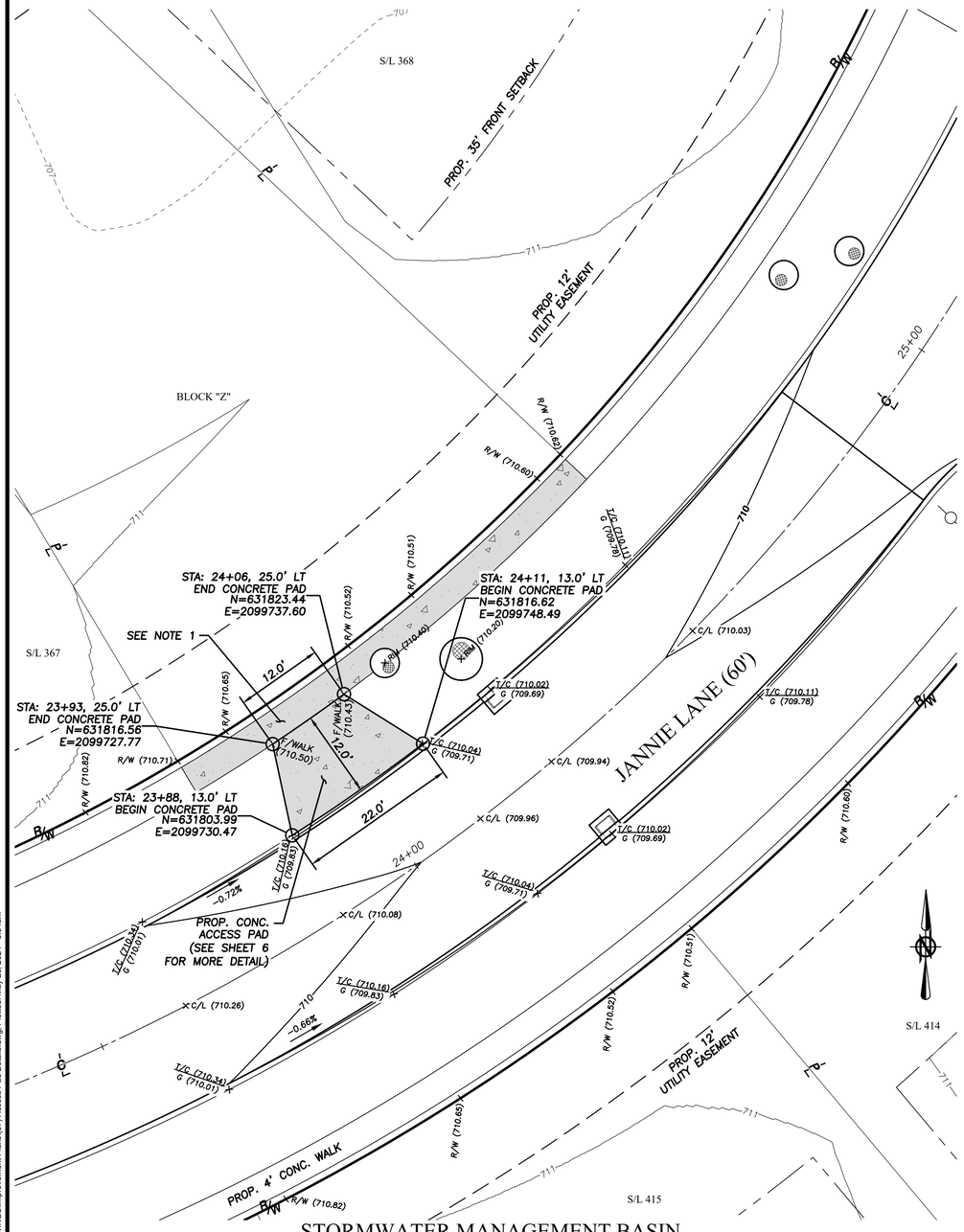
CITY OF NORTH RIDGEVILLE, COUNTY OF LORAIN, STATE OF OHIO

SHEET 36 OF 52
JOB NO. 20-5445-8

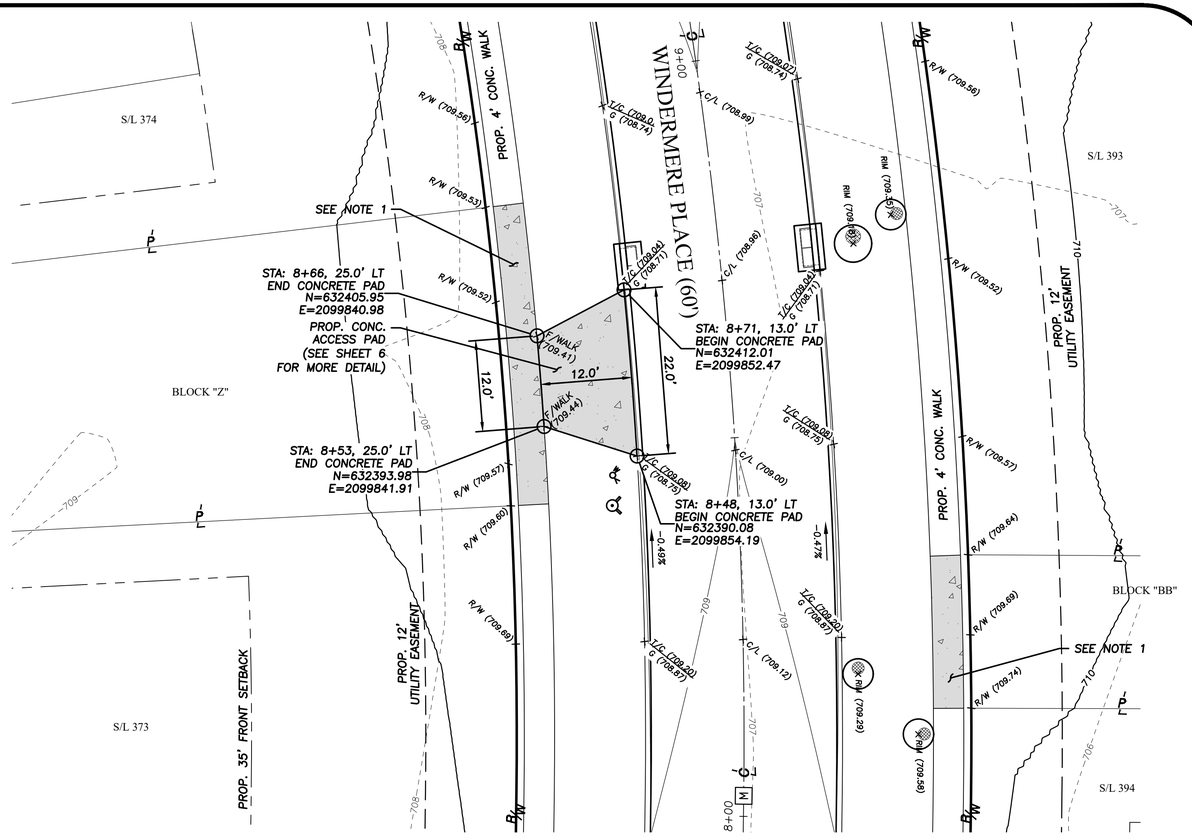
J:\2024\5445-8 Hampton Place PH-8\DRAWINGS\Improvement Plans\(31-36) Intersection Details.dwg, Plotted: May 28, 2024, 8:33am



1

STORMWATER MANAGEMENT BASIN
ACCESS PAD (SOUTHERN)

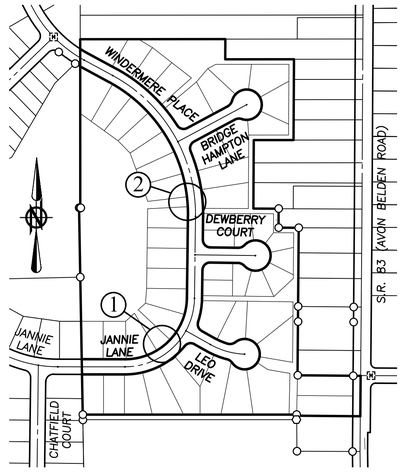
SCALE: 1" = 10'



1

STORMWATER MANAGEMENT BASIN
ACCESS PAD (NORTHERN)

SCALE: 1" = 10'



LOCATION MAP

N.T.S.

LEGEND

T/C (100.00)	TOP OF CURB ELEVATION
G (100.00)	GUTTER ELEVATION
T/CASTING (100.00)	TOP OF CASTING ELEVATION
F/WALK (705.96)	PROPOSED FACE OF WALK ELEVATION
RIM: (705.96)	PROPOSED RIM ELEVATION
C/L (705.96)	PROPOSED CENTERLINE ELEVATION
R/W: (706.45)	PROPOSED RIGHT-OF-WAY ELEVATION
F/L: (705.26)	PROPOSED FLOW LINE ELEVATION
H.P.	HIGH POINT
604 / 605	EXISTING CONTOURS (PER FIELD TOPO GATHERED IN DECEMBER OF 2022)
604 / 605	PROPOSED CONTOURS (PHASE 8 IMPROVEMENTS)

NOTE:

1. SIDEWALK SHALL BE THICKENED TO 6" MINIMUM.

REVISION	DATE:	BY:	DESCRIPTION:
	11/17/2023	CLH	ISSUE TO CITY FOR ENGINEERING REVIEW
	12/19/2023	CLH	ISSUE TO OEPA FOR REVIEW
	02/27/2024	CLH	REVISED CITY COMMENTS
	04/23/2024	CLH	REVISED PER CITY COMMENTS
	05/24/2024	CLH	REVISED PER CITY COMMENTS

DRAWN BY: SJM

CHECKED BY: CLH

BRAMHALL
ENGINEERING AND SURVEYING COMPANY
801 MOORE ROAD AVON, OHIO 44011
(440) 934 - 7878 (440) 934 - 7879 FAX

PREPARED FOR:

VALORE PROPERTIES, INC.
23550 CENTER RIDGE ROAD
WESTLAKE, OH 44145

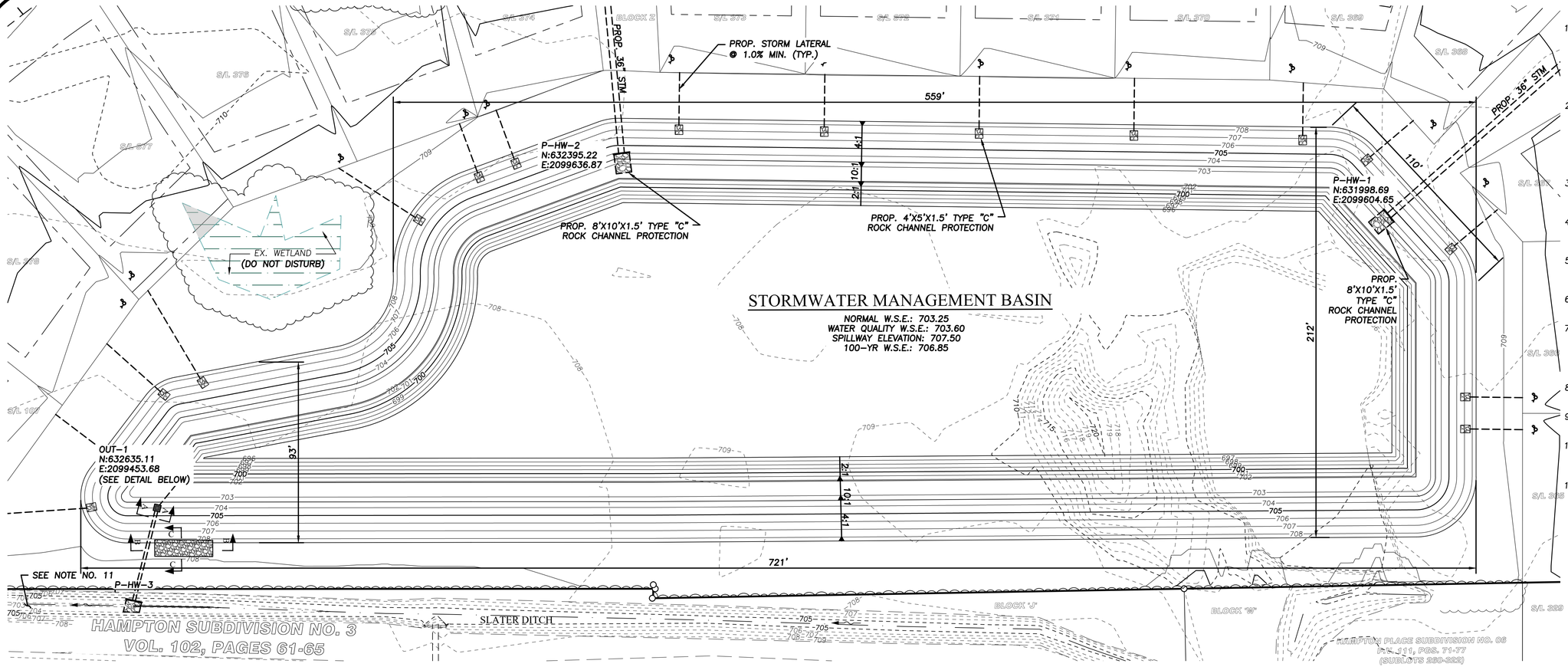
HAMPTON PLACE SUBDIVISION - PHASE 8
ACCESS PAD DETAILS

CITY OF NORTH RIDGEVILLE, COUNTY OF LORAIN, STATE OF OHIO

SHEET 37 OF 52

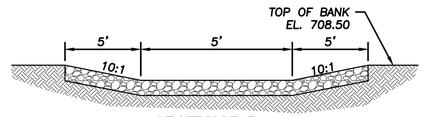
JOB NO. 20-5445-8

J:\20544S-8 Hampton Place PH-8\DRAWINGS\Improvement Plans\(37) Access Pad Details.dwg, Plotted: May 29, 2024 - 8:34am

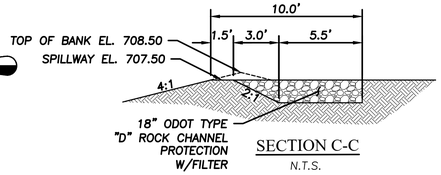


NOTES

1. CONTRACTOR IS TO VERIFY THE LOCATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION AND ENSURE NO CONFLICT EXIST WITH PROPOSED IMPROVEMENTS. NOTIFY ENGINEER IMMEDIATELY IF UTILITIES ARE LOCATED DIFFERENTLY THAN SHOWN. THE CONTRACTOR SHALL COORDINATE WITH EACH RESPECTIVE UTILITY COMPANY IN ORDER TO RELOCATE IF NEEDED IN CONFORMANCE WITH THEIR GUIDELINES.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING, PRIOR TO CONSTRUCTION, ALL EXISTING LOCATIONS AND INVERT ELEVATIONS OF STORM DRAINAGE. IF ANY INVERT ELEVATION VARIES MORE THAN 0.1 FT. FROM RECORDED ELEVATIONS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY. WORK SHALL NOT PROCEED UNTIL THE CONTRACTOR IS NOTIFIED BY THE ENGINEER.
3. CONNECT TO EXISTING UTILITIES AND INSTALL UTILITIES IN COMPLIANCE WITH REQUIREMENTS OF APPROPRIATE LOCAL AGENCY STANDARD CONSTRUCTION DRAWINGS.
4. ALL EXISTING SEWERS AND DRAINAGE SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION INCLUDING CLEANING OF ANY SILT OR DEBRIS ACCUMULATED IN STRUCTURES OR DITCHES.
5. COORDINATE EXACT TRENCHING, ROUTING AND POINT OF TERMINATIONS WITH ALL UTILITIES COMPANIES, BOTH PUBLIC AND PRIVATE.
6. CONTRACTOR SHALL FIELD VERIFY ALL UTILITY LOCATIONS AND CROSSINGS PRIOIR TO THE COMMENCEMENT OF CONSTRUCTION.
7. ALL SEEDING AND MULCHING WITHIN THE BASIN LIMITS SHALL BE NO MOW SEED MIX WITH ANNUAL RYE. CONTRACTOR SHALL FOLLOW ALL THE SPECIFICATIONS FOR SITE PREPARATION, SEEDING METHODS, DATES AND WATER SHALL BE IN ACCORDANCE WITH THE MANUFACTURE'S REQUIREMENTS.
8. ALL HEADWALLS SHALL BE FULL HEIGHT UNLESS REINFORCED CONCRETE PIPE IS USED.
9. ALL STORMWATER MANAGEMENT FACILITIES SHALL BE MAINTAINED BY THE HOMEOWNERS ASSOCIATION.
10. STORM LATERALS DISCHARGING INTO THE STORMWATER MANAGEMENT BASINS SHALL HAVE THE INVERT ABOVE THE 100 YEAR WATER SURFACE ELEVATION (706.85).
11. CONTRACTOR SHALL CLEAN AND MAINTAIN SLATER DITCH FROM THE WINDERMERE PLACE CROSSING TO THE STORMWATER MANAGEMENT BASIN OUTLET.



SECTION B-B
N.T.S.



SECTION C-C
N.T.S.

SEDIMENT BASIN DESIGN CRITERIA:

DRAINAGE AREA: 27.70 ACRES
DISTURBED AREA: 27.70 ACRES

REQUIRED DEWATERING VOLUME = (27.70 AC)*(1800 cf/ACRES) = 49,860 cf

PROVIDED DEWATERING VOLUME @ 705.75 = 224,365 cf > 49,860 cf

REQUIRED SEDIMENT STORAGE VOLUME = (27.70 AC)*(1000 cf/ACRES) = 27,700 cf

PROVIDED SEDIMENT STORAGE VOLUME @ 703.60 = 307,453 cf > 27,700 cf

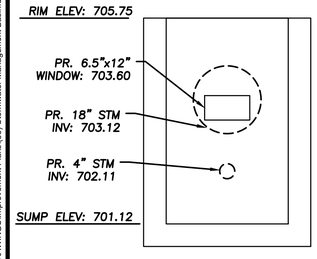
BARREL LENGTH = 1.4x DEPTH OF DEWATERING
1.4 * (705.75-703.60) = 3.01' REQUIRED

Calculate Skimmer Size				
Basin Volume in Cubic Feet	224,365	Cu.Ft	Skimmer Size	6.0 Inch
Days to Drain*	5	Days	Orifice Radius	2.8 Inch[es]
			Orifice Diameter	5.6 Inch[es]

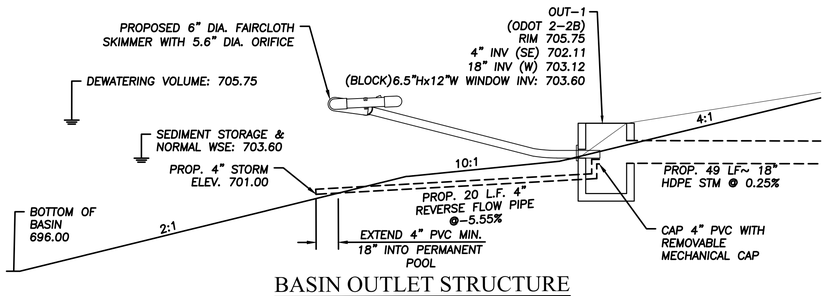
*In NC assume 3 days to drain

GRAPHIC SCALE
0 15 30 60
(IN FEET)
SCALE: 1" = 30'

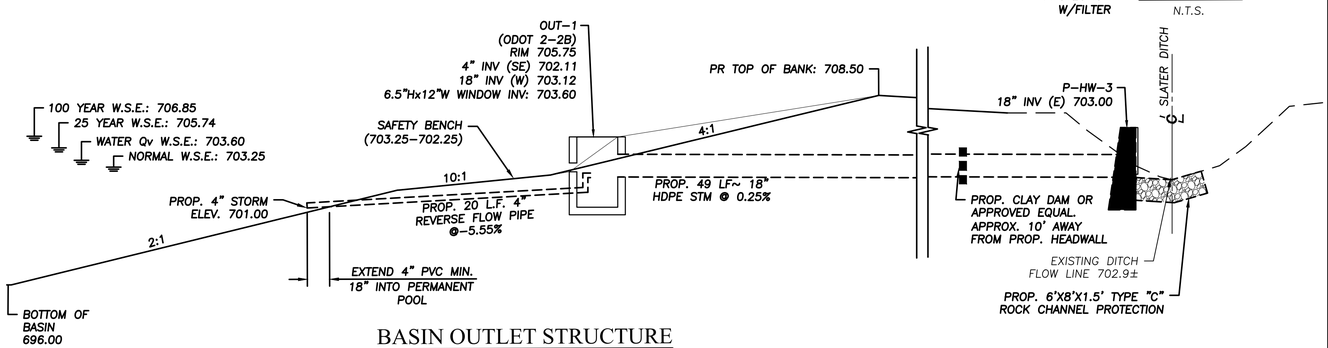
BEFORE YOU DIG ANYWHERE IN OHIO! CALL 1-800-362-2764 OR 8-1-1
OHIO LAW REQUIRES 48 HOURS BUT NO MORE THAN 10 WORKING DAYS NOTICE TO UTILITIES BEFORE YOU EXCAVATE, DRILL, BLAST OR DEMOLISH
TICKET NO.:
OHIO Utilities Protection SERVICE
Call Before You Dig



SECTION A-A
N.T.S.



BASIN OUTLET STRUCTURE
(DURING CONSTRUCTION)
N.T.S.



BASIN OUTLET STRUCTURE
(POST CONSTRUCTION)
N.T.S.

REVISION	DATE:	BY:	DESCRIPTION:
	11/17/2023	CLH	ISSUE TO CITY FOR ENGINEERING REVIEW
	12/19/2023	CLH	ISSUE TO OEPA FOR REVIEW
	02/27/2024	CLH	REVISED CITY COMMENTS
	04/23/2024	CLH	REVISED PER CITY COMMENTS
	05/24/2024	CLH	REVISED PER CITY COMMENTS

DRAWN BY: SJM
CHECKED BY: CLH

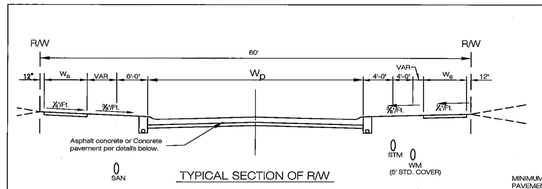
BRAMHALL
ENGINEERING AND SURVEYING COMPANY
801 MOORE ROAD AVON, OHIO 44011
(440) 934 - 7878 (440) 934 - 7879 FAX

PREPARED FOR:
VALORE PROPERTIES, INC.
23550 CENTER RIDGE ROAD
WESTLAKE, OH 44145

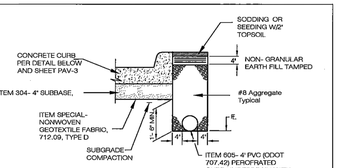
HAMPTON PLACE SUBDIVISION - PHASE 8
STORMWATER MANAGEMENT BASIN
CITY OF NORTH RIDGEVILLE, COUNTY OF LORAIN, STATE OF OHIO

SHEET 38 OF 52
JOB NO. 20-5445-8

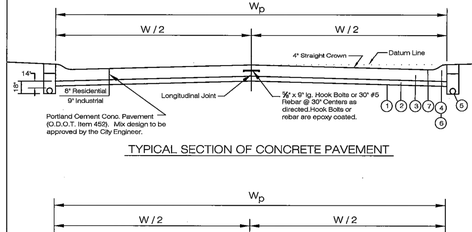
J:\20-5445-8 Hampton Place PH-8\DRAWINGS\Improvement Plans\(38) Stormwater Management Basin.dwg, Plotted: May 28, 2024 - 8:36am



TYPICAL SECTION OF R/W



SHALLOW PIPE UNDERDRAIN WITH FABRIC WRAP



TYPICAL SECTION OF CONCRETE PAVEMENT

MINIMUM PAVEMENT WIDTHS (W_P)

24'	PRIVATE RESIDENTIAL
24'	PUBLIC; LIGHT TRAFFIC (UP TO 25 SUBLOTS)
28'	PUBLIC; MEDIUM TRAFFIC (> 25 SUBLOTS)
28'	PRIVATE; COMMERCIAL AND INDUSTRIAL
28'	PUBLIC; COLLECTORS AND ARTERIALS
30'	PUBLIC; COMMERCIAL AND INDUSTRIAL

LEGEND

1. ODOT ITEM 204 - SUBGRADE COMPACTION
2. ODOT ITEM 304 - AGGREGATE BASE, 4" TH MIN.
3. ODOT ITEM 452 - NON-REINFORCED CONCRETE PAVEMENT THICKNESS 8" MIN. RESIDENTIAL THICKNESS 9" MIN COMMERCIAL INDUSTRIAL
4. ODOT ITEM 609 - TYPE 3 CONCRETE CURB
5. ODOT ITEM 605 - 4" UNDERDRAIN
6. ODOT ITEM 609 - TYPE 2 CONCRETE CURB FOR ARTERIALS, COLLECTORS, COMMERCIAL, AND INDUSTRIAL
7. SPECIAL - "ISLENCURE" CURING AND SEALING COMPOUND PRODUCED BY CHEMMASTERS 300 EDWARDS STREET, MADISON, OHIO WWW.CHEMMASTERS.NET

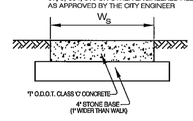
SIDEWALK MINIMUM THICKNESS (T)

4"	NORMAL SIDEWALK
6"	RESIDENTIAL DRIVES
8"	COMMERCIAL AND INDUSTRIAL DRIVES

SIDEWALK MINIMUM WIDTHS (W_S)

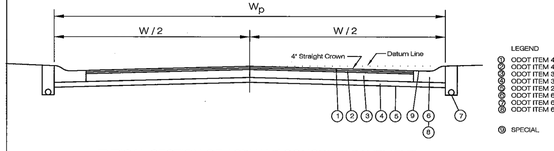
3.5'	R/W LESS THAN 50' WIDE
4.0'	R/W WIDTH 50' TO 60' WIDE
5.0'	R/W EXCEEDS 60'

STONE BASE: SHALL CONSIST OF CDOT #57, 67, 8, 304, 310 OR OTHER ENGINEERED FILL AS APPROVED BY THE CITY ENGINEER



SIDEWALK DETAIL

No Scale



TYPICAL SECTION OF ASPHALT CONCRETE PAVEMENT

LEGEND

1. ODOT ITEM 448 - ASPHALT SURFACE COURSE, 1.5" TH MIN.
2. ODOT ITEM 448 - ASPHALT INTERMEDIATE COURSE, 2" TH MIN.
3. ODOT ITEM 301 - BITUMINOUS AGGREGATE BASE, 9" TH MIN.
4. ODOT ITEM 304 - AGGREGATE BASE, 4" TH MIN.
5. ODOT ITEM 204 - SUBGRADE COMPACTION
6. ODOT ITEM 609 - TYPE 3 CONCRETE CURB AND GUTTER
7. ODOT ITEM 605 - 4" UNDERDRAIN
8. ODOT ITEM 609 - TYPE 2 CONCRETE CURB FOR ARTERIALS, COLLECTORS, COMMERCIAL, AND INDUSTRIAL
9. SPECIAL - "ISLENCURE A" CURING AND SEALING COMPOUND PRODUCED BY CHEMMASTERS 300 EDWARDS STREET, MADISON, OHIO WWW.CHEMMASTERS.NET

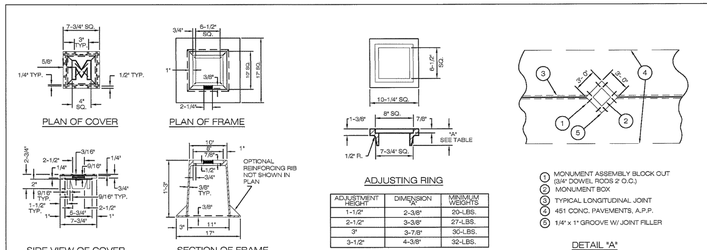
Laury Gifford
CITY OF NORTH RIDGEVILLE, ENGINEER

REV No.	DATE	BY	DESCRIPTION
2	5/14/08	CB	Revise curing Compound

CITY OF NORTH RIDGEVILLE, OHIO
DEPARTMENT OF ENGINEERING

PAVEMENT & RIGHT-OF-WAY STANDARDS

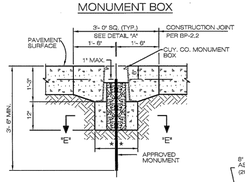
SCALE: NOT TO SCALE
DATE: 10/01/08 | DRWN BY: JAB/TEB | PAV-1

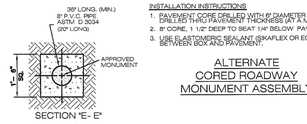


ADJUSTING RING

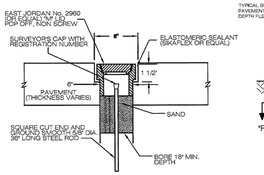
ADJUSTMENT HEIGHT	DIMENSION "A"	MINIMUM WEIGHTS
1-1/2"	2-3/8"	20-LBS.
2-1/2"	3-3/8"	27-LBS.
3"	3-7/8"	30-LBS.
3-1/2"	4-3/8"	32-LBS.

MONUMENT BOX





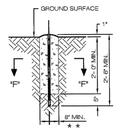
ROADWAY MONUMENT ASSEMBLY



INSTALLATION INSTRUCTIONS

1. PAVEMENT CORE DRILLED WITH 9" DIAMETER CORE DRILLED THRU PAVEMENT THICKNESS (AT A MIN. OF 18").
2. 8" CORE, 1 1/2" DEEP TO SEAT 1/4" BELOW PAVEMENT.
3. USE ELASTOMERIC SEALANT (SIKAFLEX OR EQUAL) TO FILL JOINT BETWEEN BOX AND PAVEMENT.

ALTERNATE CORED ROADWAY MONUMENT ASSEMBLY



SECTION "F- F"

RIGHT OF WAY MONUMENT

DETAIL "A"

TYPICAL BLOCK OUT IN RIGID PAVEMENT. (DMIT FOR FULL DEPTH FLEXIBLE PAVEMENT)

1. MONUMENT ASSEMBLY BLOCK OUT (3/4" DOWEL, RODS 2 O.C.)
2. MONUMENT BOX
3. TYPICAL LONGITUDINAL JOINT
4. 451 CONC. PAVEMENTS, A.P.P.
5. 1/4" x 1" GROOVE W/ JOINT FILLER

NOTES

CASTINGS

SHALL MINIMALLY MEET THE REQUIRE- MENTS OF 604.02-711.12, A.S.T.M. A 48, CLASS 35 GRAY IRON OR 711.13 DUCTILE IRON.

THE ASSEMBLY SHALL BE ESSENTIALLY THE SAME AND EQUALLY AS STRONG AS THOSE HEREON.

MINIMUM WEIGHTS:

FRAME _____ 84 LBS.
COVER _____ 16 LBS.
PROVIDED THEY COMPLY WITH THE SPECIFICATIONS, DETAILS, DIMENSIONS AND MINIMUM WEIGHTS.
NEENAH _____ NO.NF- 0000704.
EAST JORDAN _____ NO.8365 OR APPROVED EQUAL CASTINGS ARE ACCEPTABLE.

BEARING AREAS SHALL BE FINISHED AS TO PROVIDE A FIRM AND EVEN SEAT. NO PROJECTION SHALL EXIST ON THE BEARING AREAS AND THE COVER SHALL SEAT IN ITS FRAME WITHOUT ROCKING.

PRIOR TO CONSTRUCTION OF PAVEMENT, THE FRAME SHALL BE SET TO GRADE IN SUCH A MANNER THAT WILL PREVENT ANY PAVEMENT MATERIAL FROM ENTERING THE CASTING.

MONUMENT CAPS WILL BE FURNISHED BY THE CLEVELAND REGIONAL GEODETIC SURVEY (C.R.G.S.) OFFICE. CONTACT CUYAHOGA COUNTY ENGINEERS SURVEY OFFICE TWO (2) WORKING DAYS BEFORE CONSTRUCTING.

ALL MONUMENTS ARE TO BE SET AND CAPPED UNDER THE DIRECTION OF A REGISTERED SURVEYOR. (REF. O.A.C. 4733-37-03)

LEGEND

ITEM 499- CONCRETE, CLASS "C"

SAND, ITEM 703.02- COMPACTED AS REQUIRED

** UNDISTURBED BEARING AND/OR SUITABLY FIRM FOUNDATION PROVIDED IN ACCORDANCE WITH 604.04 AND TO THE SATISFACTION OF THE ENGINEER.

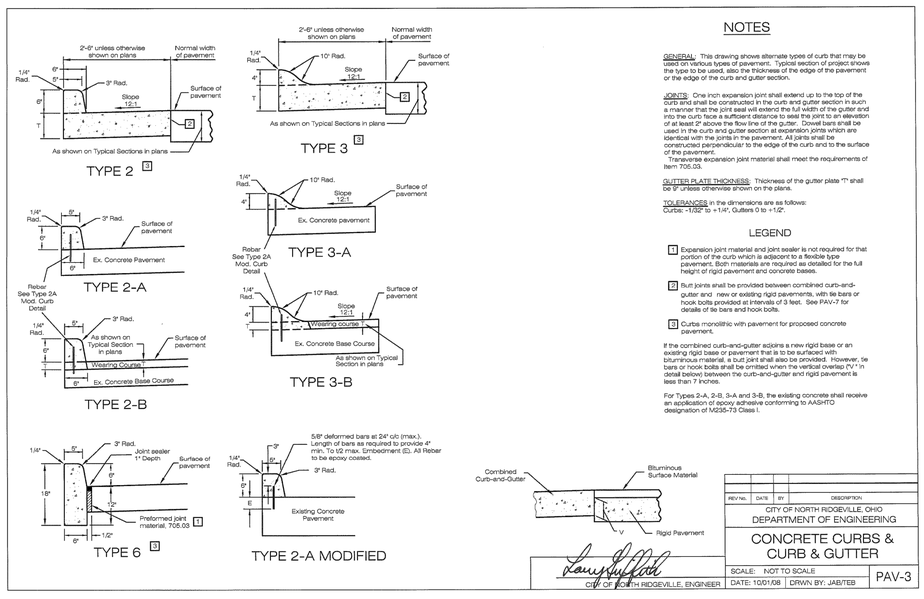
Laury Gifford
CITY OF NORTH RIDGEVILLE, ENGINEER

REV No.	DATE	BY	DESCRIPTION

CITY OF NORTH RIDGEVILLE, OHIO
DEPARTMENT OF ENGINEERING

MONUMENT BOX ASSEMBLIES

SCALE: NOT TO SCALE
DATE: 10/01/08 | DRWN BY: JAB/TEB | PAV-2



NOTES

GENERAL: This drawing shows alternate types of curb that may be used on various types of pavement. Typical section of project shows the type to be used, also the thickness of the edge of the pavement or the edge of the curb and gutter section.

JOINTS: One inch expansion joint shall extend up to the top of the curb and shall be constructed in the curb and gutter section in such a manner that the joint seal will extend the full width of the gutter and into the curb face a sufficient distance to seal the joint to an elevation of at least 2" above the flow line of the gutter. Dowel bars shall be used in the curb and gutter section at expansion joints which are identical with the joints in the pavement. All joints shall be constructed perpendicular to the edge of the curb and to the surface of the pavement.
Transverse expansion joint material shall meet the requirements of Item 705.03.

GUTTER PLATE THICKNESS: Thickness of the gutter plate "T" shall be 9" unless otherwise shown on the plans.

TOLERANCES in the dimensions are as follows:
Curbs: +1/32" to +1/4", Gutters 0 to +1/2".

LEGEND

1. Expansion joint material and joint sealer is not required for that portion of the curb which is adjacent to a flexible type pavement. Both materials are required as detailed for the full height of rigid pavement and concrete bases.
2. Butt joints shall be provided between combined curb-and-gutter and new or existing rigid pavements, with tie bars or hook bolts provided at intervals of 3 feet. See PAV-7 for details of tie bars and hook bolts.
3. Curbs monolithic with pavement for proposed concrete pavement.

If the combined curb-and-gutter adjoins a new rigid base or an existing rigid base or pavement that is to be surfaced with bituminous material, a butt joint shall also be provided. However, tie bars or hook bolts shall be omitted when the vertical overlap ("V " in detail below) between the curb-and-gutter and rigid pavement is less than 7 inches.

For Types 2-A, 2-B, 3-A and 3-B, the existing concrete shall receive an application of epoxy adhesive conforming to AASHTO designation of M235-73 Class I.

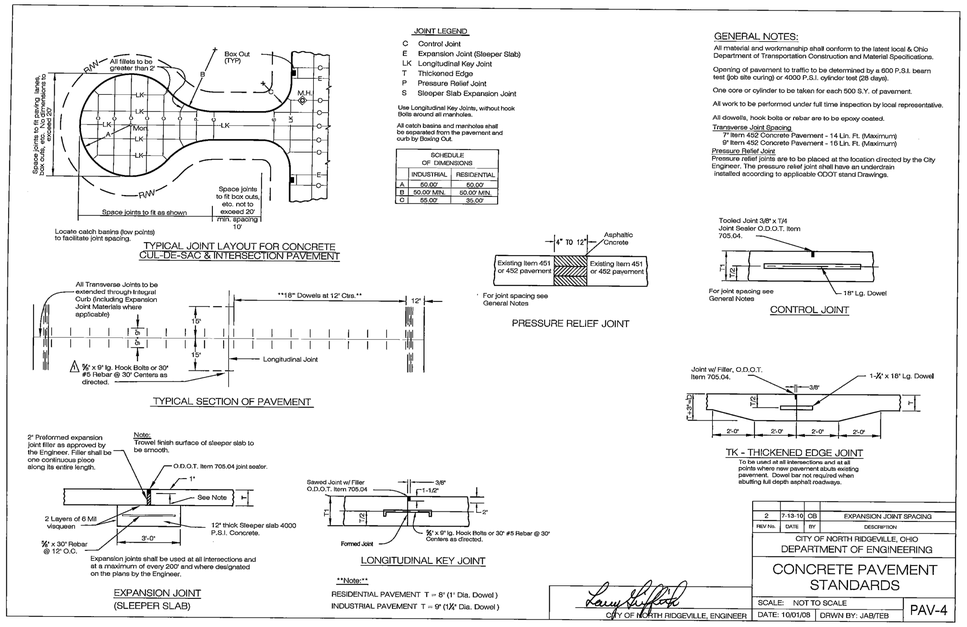
Laury Gifford
CITY OF NORTH RIDGEVILLE, ENGINEER

REV No.	DATE	BY	DESCRIPTION

CITY OF NORTH RIDGEVILLE, OHIO
DEPARTMENT OF ENGINEERING

CONCRETE CURBS & CURB & GUTTER

SCALE: NOT TO SCALE
DATE: 10/01/08 | DRWN BY: JAB/TEB | PAV-3



TYPICAL JOINT LAYOUT FOR CONCRETE CUL-DE-SAC & INTERSECTION PAVEMENT

JOINT LEGEND

C	Control Joint
E	Expansion Joint (Sleeper Slab)
LK	Longitudinal Key Joint
T	Thickened Edge
P	Pressure Relief Joint
S	Sloped Slab Expansion Joint

Use Longitudinal Key Joints, without hook Bolts around all manholes.

All catch basins and manholes shall be separated from the pavement and curb by Boxing Out.

SCHEDULE OF DIMENSIONS		
	INDUSTRIAL	RESIDENTIAL
A	50.00'	50.00'
B	50.00' MIN.	50.00' MIN.
C	55.00'	35.00'

GENERAL NOTES:

All material and workmanship shall conform to the latest local & Ohio Department of Transportation Construction and Material Specifications.

Opening of pavement to traffic to be determined by a 600 P.S.I. beam test (job site curing) or 4000 P.S.I. cylinder test (28 days).

One core or cylinder to be taken for each 500 S.Y. of pavement.

All work to be performed under full time inspection by local representative.

All dowells, hook bolts or rebar are to be epoxy coated.

Transverse Joint Spacing
7" Item 452 Concrete Pavement - 14 Lin. Ft. (Maximum)
9" Item 452 Concrete Pavement - 16 Lin. Ft. (Maximum)

Pressure Relief Joint
Pressure relief joints are to be placed at the location directed by the City Engineer. The pressure relief joint shall have an underdrain installed according to applicable ODOT stand Drawings.

For joint spacing see General Notes

PRESSURE RELIEF JOINT

TYPICAL SECTION OF PAVEMENT

CONTROL JOINT

TK - THICKENED EDGE JOINT

To be used at all intersections and at all points where new pavement abuts existing pavement. Dowel bar not required when abutting full depth asphalt roadways.

EXPANSION JOINT (SLEEPER SLAB)

Expansion joints shall be used at all intersections and at a maximum of every 200' and where designated on the plans by the Engineer.

LONGITUDINAL KEY JOINT

Note:
RESIDENTIAL PAVEMENT T = 8" (1" Dia. Dowel)
INDUSTRIAL PAVEMENT T = 9" (1⅛" Dia. Dowel)

Laury Gifford
CITY OF NORTH RIDGEVILLE, ENGINEER

2	7-13-16	CB	EXPANSION JOINT SPACING
REV No.	DATE	BY	DESCRIPTION

CITY OF NORTH RIDGEVILLE, OHIO
DEPARTMENT OF ENGINEERING

CONCRETE PAVEMENT STANDARDS

SCALE: NOT TO SCALE
DATE: 10/01/08 | DRWN BY: JAB/TEB | PAV-4

J:\20545-8 Hampton Place PH-8\DRAWINGS\Improvement Plans\(39-44) Miscellaneous Details.dwg, Plotted: May 28, 2024 - 8:36am

REVISION	DATE:	BY:	DESCRIPTION:
	11/17/2023	CLH	ISSUE TO CITY FOR ENGINEERING REVIEW
	12/19/2023	CLH	ISSUE TO OEPA FOR REVIEW
	02/27/2024	CLH	REVISED CITY COMMENTS
	04/23/2024	CLH	REVISED PER CITY COMMENTS
	05/24/2024	CLH	REVISED PER CITY COMMENTS

DRAWN BY: SJM
CHECKED BY: CLH

BRAMHALL
ENGINEERING AND SURVEYING COMPANY
801 MOORE ROAD AVON, OHIO 44011
(440) 934 - 7878 (440) 934 - 7879 FAX

PREPARED FOR:
VALORE PROPERTIES, INC.
23550 CENTER RIDGE ROAD
WESTLAKE, OH 44145

HAMPTON PLACE SUBDIVISION - PHASE 8
MISCELLANEOUS DETAILS
CITY OF NORTH RIDGEVILLE, COUNTY OF LORAIN, STATE OF OHIO

SHEET 39 OF 52
JOB NO. 20-5445-8

Notes:

Location: and elevation when given on the plans is top center of the grate. When side openings are provided, elevation shall be the flow line of the side inlet.

Casting and Frame: Casting to be East Jordan Iron Works No. 5110 w/Type M2 Flat Grate or as approved equal. A type M3 or M4 may be required in a bicycle traffic environment.

Brick: concrete block or cast-in-place walls have a nominal thickness of 8 inches. Precast walls shall have a min. thickness of 6 inches and be reinforced sufficiently to permit shipping and handling without damage.

2-2-B Grate: elevation to be placed 4 to 6 inches below normal ditch returning to normal 10 feet each side of the basin.

The following text shall be cast into the top of the grate: "DUMP NO WASTE" and "DRAINS TO WATERWAY"

Text shall be printed in bold, capital letters with a minimum height of 0.5". "WATERWAY" may be substituted with "STREAM", "RIVER", "LAKE", etc. Actual placement and logo may vary per manufacturer.

Side Inlets: shall be provided on both sides of the No. 2-2-B catch basins in sags and on upstream side only where the ditch has a continuous down grade past the catch basin.

Concrete: cast in place, to be Class C. All precast concrete shall meet the requirements of 706.13.

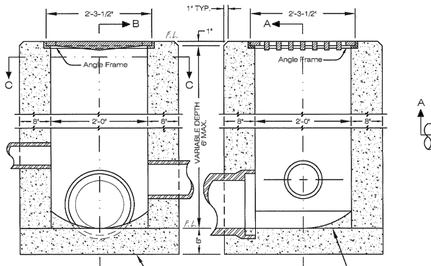
Openings: for pipes shall be O.D +2" when fabricated or field cut.

Maximum Depth: is 4'-0".

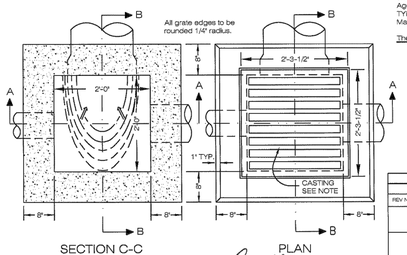
Backfill for structures within 3' of all pavement, driveways and sidewalks shall be ODOT Item 304 Aggregate Base or Low Strength Mortar Backfill, TYPE 2 per current O.D.O.T. Construction and Material Specifications, except as modified herein.

The use of Foundry Sand or Slag is strictly prohibited.

STANDARD No. 2-2-B CATCH BASIN



SECTION A-A SECTION B-B



SECTION C-C PLAN

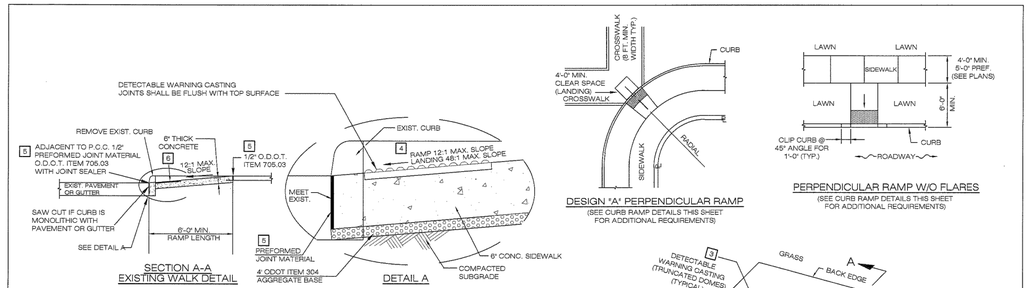
REV No.	DATE	BY	DESCRIPTION

CITY OF NORTH RIDGEVILLE, OHIO
DEPARTMENT OF ENGINEERING

CATCH BASINS
2-2-B

SCALE: NOT TO SCALE
DATE: 10/01/08 | DRWN BY: JAB/TEB | STM-6

CITY OF NORTH RIDGEVILLE, ENGINEER



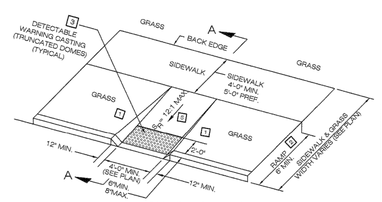
SECTION A-A
EXISTING WALK DETAIL

DESIGN "A" PERPENDICULAR RAMP
(SEE CURB RAMP DETAILS THIS SHEET FOR ADDITIONAL REQUIREMENTS)

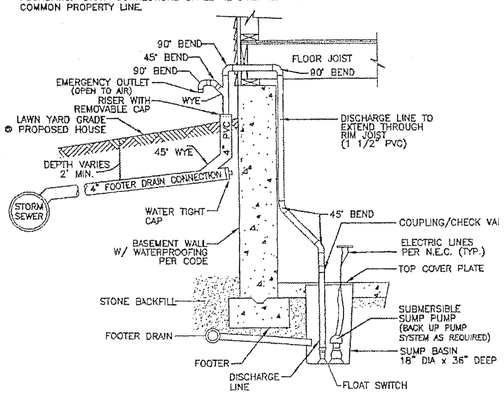
PERPENDICULAR RAMP W/O FLARES
(SEE CURB RAMP DETAILS THIS SHEET FOR ADDITIONAL REQUIREMENTS)

DETAIL NOTES

1. FLARED SIDES ARE NOT REQUIRED WHERE THE EDGES OF A CURB RAMP ARE PROTECTED BY LANDSCAPING OR OTHER BARRIERS AND WHEELCHAIR OR PEDESTRIAN TRAVEL DOES NOT OCCUR ACROSS THE EDGE OF THE CURB RAMP. HOWEVER, IF FLARED SIDES ARE USED IN AREAS OF CROSS TRAVEL, THE MINIMUM SLOPE SHALL BE 10:1 WITH A LANDING AND 12:1 WITHOUT A DEFINED LANDING.
2. THE SLOPE OF THE RAMP TOWARD THE CURB IS REQUIRED TO BE 12:1 [0.0833) OR LESS, RELATIVE TO THE HORIZONTAL, UNLESS APPROVED IN WRITING BY THE ENGINEER.
3. THE MINIMUM LENGTH OF A PERPENDICULAR RAMP IS 6' FROM THE BACK OF A 6" CURB AND MAY BE INCREASED WHERE FEASIBLE TO OBTAIN A FLATTER RAMP SLOPE OR TO BETTER BLEND WITH THE WALK CONFIGURATION
4. DETECTABLE WARNING CASTINGS SHALL CONSIST OF A SURFACE OF TRUNCATED DOMES ALIGNED ON A SQUARE GRID, IN THE PREDOMINANT DIRECTION OF TRAVEL, EXTENDING A DISTANCE OF 24" FROM THE BACK OF CURB AND SPANNING THE ENTIRE WIDTH OF THE RAMP OPENING.
5. DETECTABLE WARNING CASTING SHALL BE 48" WIDE AND 24" DEEP. (2 EA. 2' X 2' CASTINGS)
6. DETECTABLE WARNING CASTING SHALL BE EAST JORDON IRON WORKS, PRODUCT NO. 00700541, CATALOG NO. 7005PL6, HEAVY DUTY.
7. TEXTURE SHALL BE OBTAINED BY COURSE BROOMING TRANSVERSE TO THE RAMP SLOPES AND SHALL BE ROUGHER THAN THE ADJACENT WALK. (DOES NOT APPLY TO TRUNCATED DOMES)
8. JOINTS SHALL BE PROVIDED IN THE CURB RAMP AS EXTENSIONS OF THE WALK JOINTS. A 0.5" ODOT ITEM 705.03 PREFORMED JOINT MATERIAL SHALL BE PROVIDED AROUND THE EDGE OF RAMPS BUILT IN EXISTING CONCRETE WALK. LINES SHOWN IN THIS DRAWING INDICATE THE RAMP EDGE AND SLOPE CHANGES AND ARE NOT NECESSARILY JOINT LINES.


3 DETECTABLE WARNING CASTING (TRUNCATED DOMES) (TYPICAL)
GRASS
A
BACK EDGE
SIDEWALK
SIDEWALK 4'-0" MIN. 5'-0" PREF.
GRASS
5
5
5

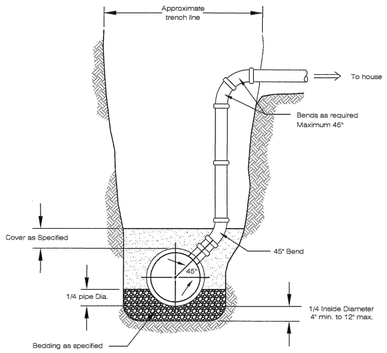
IN THE FUTURE IF A FOUNDATION DRAIN CONNECTION IS ADDED TO SUBLOT 390 THE CONNECTION SHALL DIRECTLY DISCHARGE TO TUCKER DITCH. FOR SUBLOTS 392 AND 393 ANY FUTURE FOUNDATION DRAIN CONNECTIONS SHALL TIE DIRECTLY INTO THE 24" STORM SEWER ALONG THE COMMON PROPERTY LINE.



SUMP PUMP CONNECTION DETAIL

NO SCALE

The pipe shall be plugged with approved stopper. Stopper shall be painted yellow for the sanitary sewer connection.



Note:

Bedding and Backfill shall meet the requirements of the City Standard Construction Drawing "Sanitary Service Connection Details".

When using PVC for construction, all portions of the riser shall be ASTM 3034 SDR 35 unless otherwise directed by the Engineer.

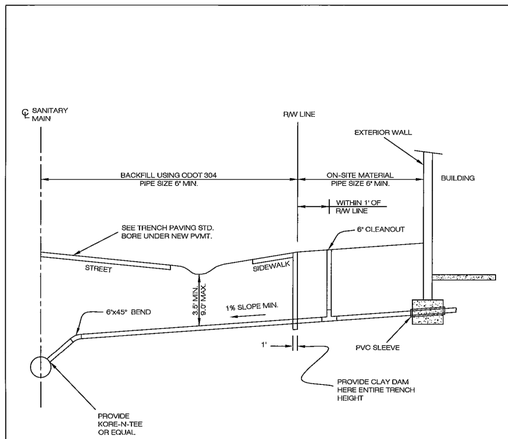
REV No.	DATE	BY	DESCRIPTION

CITY OF NORTH RIDGEVILLE, OHIO
DEPARTMENT OF ENGINEERING

STANDARD RISER DETAIL

CITY OF NORTH RIDGEVILLE, ENGINEER

SCALE: NOT TO SCALE | DATE: 10/01/08 | DRWN BY: JAB/TEB | SAN-7



NOTES:
ALL PIPE SHALL BE PVC ASTM D 3034, SDR 35 WITH 'O'-RING JOINTS PER ASTM 3212.
BELL ENDS SHALL BE FACED UPSTREAM.
PIPE EMBEDMENT: ODOT #57 4" BELOW PIPE TO 1 FOOT ABOVE TOP OF PIPE, FULL WIDTH OF TRENCH.
BACKFILL: ODOT NO. 304 (ABOVE PIPE EMBEDMENT)
PROVIDE GASKETED PLUG IN SANITARY SEWER CONNECTION AT R/W LINE IF CONNECTION IS NOT TO BE USED IMMEDIATELY.
EMPLOY PROPER TRENCH SAFETY PER LATEST OSHA STANDARDS.

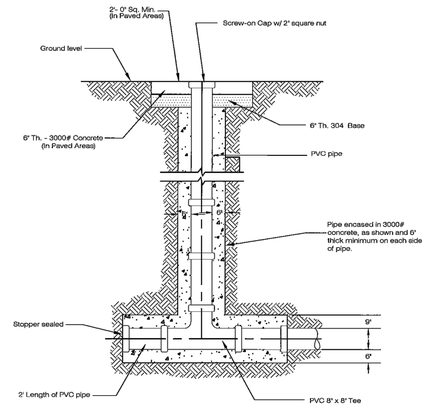
REV No.	DATE	BY	DESCRIPTION

CITY OF NORTH RIDGEVILLE, OHIO
DEPARTMENT OF ENGINEERING

SANITARY SERVICE CONNECTION

CITY OF NORTH RIDGEVILLE, ENGINEER

SCALE: NOT TO SCALE | DATE: 10/01/08 | DRWN BY: JAB/TEB | SAN-8



8" Cleanout shall be used for 8" sewers and larger. Smaller size sewers and lamp holes shall have same size pipe.

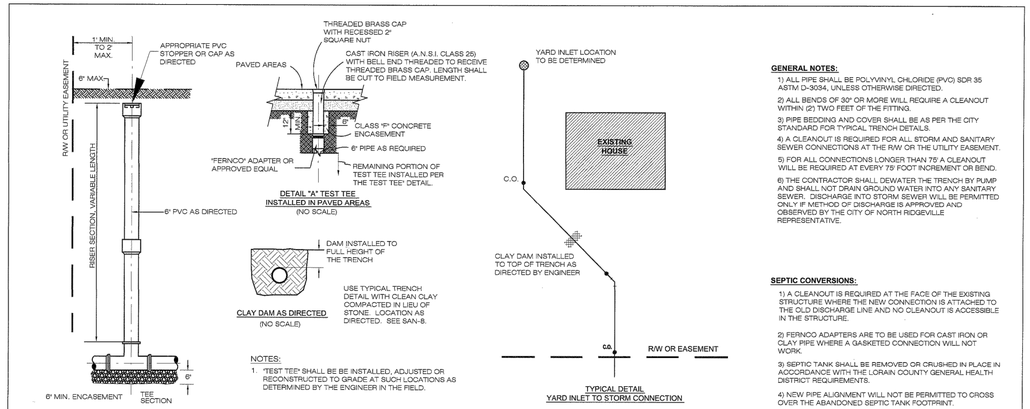
REV No.	DATE	BY	DESCRIPTION
1	8/19/08		Screw-on Cap

CITY OF NORTH RIDGEVILLE, OHIO
DEPARTMENT OF ENGINEERING

CLEANOUT DETAIL

CITY OF NORTH RIDGEVILLE, ENGINEER

SCALE: NOT TO SCALE | DATE: 10/01/08 | DRWN BY: JAB/TEB | SAN-9



GENERAL NOTES:

1) ALL PIPE SHALL BE POLYVINYL CHLORIDE (PVC) SDR 35 ASTM D-3034, UNLESS OTHERWISE DIRECTED.

2) ALL BENDS OF 30° OR MORE WILL REQUIRE A CLEANOUT WITHIN (2) TWO FEET OF THE FITTING.

3) PIPE BEDDING AND COVER SHALL BE AS PER THE CITY STANDARD FOR TYPICAL TRENCH DETAILS.

4) A CLEANOUT IS REQUIRED FOR ALL STORM AND SANITARY SEWER CONNECTIONS AT THE R/W OR THE UTILITY EASEMENT.

5) FOR ALL CONNECTIONS LONGER THAN 75' A CLEANOUT WILL BE REQUIRED AT EVERY 75' FOOT INCREMENT OR BEND.

6) THE CONTRACTOR SHALL DEWATER THE TRENCH BY PUMP AND SHALL NOT DRAIN GROUND WATER INTO ANY SANITARY SEWER. DISCHARGE INTO STORM SEWER WILL BE PERMITTED ONLY IF METHOD OF DISCHARGE IS APPROVED AND OBSERVED BY THE CITY OF NORTH RIDGEVILLE REPRESENTATIVE.

SEPTIC CONVERSIONS:

1) A CLEANOUT IS REQUIRED AT THE FACE OF THE EXISTING STRUCTURE WHERE THE NEW CONNECTION IS ATTACHED TO THE OLD DISCHARGE LINE AND NO CLEANOUT IS ACCESSIBLE IN THE STRUCTURE.

2) FERNCO ADAPTERS ARE TO BE USED FOR CAST IRON OR CLAY PIPE WHERE A GASKETED CONNECTION WILL NOT WORK.

3) SEPTIC TANK SHALL BE REMOVED OR CRUSHED IN PLACE IN ACCORDANCE WITH THE LORAIN COUNTY GENERAL HEALTH DISTRICT REQUIREMENTS.

4) NEW PIPE ALIGNMENT WILL NOT BE PERMITTED TO CROSS OVER THE ABANDONED SEPTIC TANK FOOTPRINT.

5) ALL DISCHARGE LINES FROM THE ABANDONED SEPTIC SYSTEMS ARE TO INCLUDE A CLEANOUT AS DIRECTED BY THE ENGINEER.

NOTES:
1. "TEST TEE" SHALL BE BE INSTALLED, ADJUSTED OR RECONSTRUCTED TO GRADE AT SUCH LOCATIONS AS DETERMINED BY THE ENGINEER IN THE FIELD.

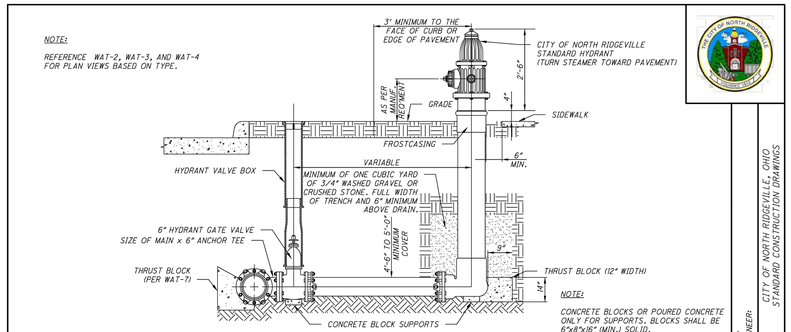
REV No.	DATE	BY	DESCRIPTION

CITY OF NORTH RIDGEVILLE, OHIO
DEPARTMENT OF ENGINEERING

6" STORM & SANITARY SERVICE DETAILS

CITY OF NORTH RIDGEVILLE, ENGINEER

SCALE: NOT TO SCALE | DATE: 10/01/08 | DRWN BY: JAB/TEB | SAN-10



NOTE:
REFERENCE WAT-2, WAT-3, AND WAT-4 FOR PLAN VIEWS BASED ON TYPE.

NOTES:

1. THE CONTRACTOR SHALL FURNISH HYDRANT BRANCHES HAVING RESTRAINED MECHANICAL JOINTS INCLUDING HYDRANT SHOE. ALL MECHANICAL JOINTS SHALL BE POLYETHYLENE WRAPPED IN ACCORDANCE WITH AWWA C-105/A21.5-88 CLASS "C", METHOD "B".
2. ALL BOLTS AND NUTS FURNISHED WITH RESTRAINED MECHANICAL JOINTS INCLUDING RETAINER OR WEDGE ACTION TYPE GLANDS SHALL BE GRADE 5 HIGH STRENGTH GALVANIZED STEEL OR EQUIVALENT.
3. ALL FIRE HYDRANTS AND VALVE BOXES SHALL BE SECURELY BRACED WHEN SET AND BACKFILLED. ALL FIRE HYDRANTS, VALVES, VALVE BOXES, AND FITTINGS SHALL MEET THE LATEST STANDARD SPECIFICATIONS FOR CONSTRUCTING WATER MAINS AND APPURTENANCES OF THE CITY OF NORTH RIDGEVILLE WATER DEPARTMENT.
4. NORTH RIDGEVILLE STANDARD HYDRANT IS A MUELLER "SUPER CENTURION". HYDRANTS SHALL OPEN IN A COUNTER-CLOCKWISE DIRECTION.
5. HYDRANT SHALL BE FACTORY PAINTED (BARREL-RED, TOP-WHITE) AND TOUCHED UP IN THE FIELD AS NECESSARY.
6. THE FIRE HYDRANTS SHALL MEET THE REQUIREMENTS OF THE AWWA SPECIFICATIONS C502, LATEST REVISION. THE HYDRANT SHALL HAVE TWO 2-1/2" NST HOSE NOZZLES AND ONE 5" MUELLER QUICK DISCONNECT STORZ NOZZLE.
7. THE 2-1/2" NOZZLE SHALL HAVE THE NATIONAL STANDARD THREADS.
8. THE HYDRANTS SHALL BE OF THE COMPRESSION TYPE WITH THE MAIN VALVE OPENING AGAINST THE PRESSURE AND CLOSING WITH THE PRESSURE.
9. THE UPPER SECTION OF THE HYDRANT WHICH HOUSES THE UPPER STEM THREADS AND BRONZE OPERATION NUT SHALL BE DESIGNED SO THAT ALL THREADED AND BEARING METAL SURFACES ARE SEALED AWAY FROM LINE PRESSURE WHEN THE HYDRANT IS IN EITHER THE OPEN OR CLOSED POSITION. THE SEAL SHALL BE MADE BY USE OF "O" RINGS. ALL THREADED AND BEARING PARTS SHALL BE IN A LUBRICATED STATE AT ALL TIMES. THE LUBRICANT MUST BE FOOD GRADE MINERAL OIL.
10. ALL FIRE HYDRANTS SHALL BE OF THE TRAFFIC MODEL TYPE. THE DESIGN SHALL BE SUCH THAT THE UPPER AND LOWER BARREL FLANGES ARE AN INTEGRAL CAST PART OF THE BARREL. THE UPPER AND LOWER BARRELS ARE TO BE JOINED AT THE GROUND LINE BY MEANS OF A BREAKABLE 2-PIECE CAST IRON SAFETY FLANGE ON THE BARREL AND A BREAKABLE STAINLESS STEEL SAFETY COUPLING ON THE STEM WHICH IS RESTRAINED BY CLEVIS AND COTTER PINS.
11. THE OPERATING STEM NUT IS TO BE BRONZE AND OF ONE PIECE CONSTRUCTION.
12. HYDRANTS SHALL BE EQUIPPED WITH A FIVE-INCH INTEGRAL STORZ QUICK DISCONNECT FITTING OF THE LOCKING-TYPE CAP. NOZZLE SHALL BE FACTORY INSTALLED AND TESTED AND MUST HAVE UL LISTING AND FM APPROVAL.

CITY OF NORTH RIDGEVILLE, OHIO
STANDARD CONSTRUCTION DRAWINGS

CITY ENGINEER:
DATE: 8/18
SCALE: N/A

GENERAL HYDRANT

DETAIL W-1.1
PHASE 1 OF 1

REVISION	BY:	DESCRIPTION:
DATE:		
11/17/2023	CLH	ISSUE TO CITY FOR ENGINEERING REVIEW
12/19/2023	CLH	ISSUE TO OEPA FOR REVIEW
02/27/2024	CLH	REVISED CITY COMMENTS
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05/24/2024	CLH	REVISED PER CITY COMMENTS

DRAWN BY: SJM

CHECKED BY: CLH

BRAMHALL
ENGINEERING AND SURVEYING COMPANY
801 MOORE ROAD AVON, OHIO 44011
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PREPARED FOR:

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23550 CENTER RIDGE ROAD
WESTLAKE, OH 44145

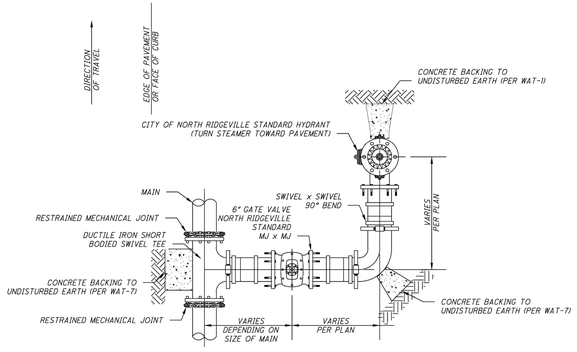
HAMPTON PLACE SUBDIVISION - PHASE 8
MISCELLANEOUS DETAILS

CITY OF NORTH RIDGEVILLE, COUNTY OF LORAIN, STATE OF OHIO

SHEET 41 OF 52

JOB NO. 20-5445-8

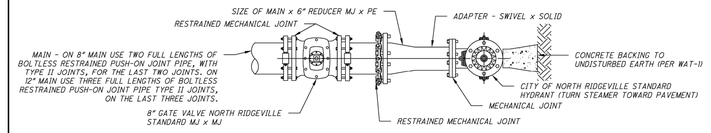
J:\20-5445-8 Hampton Place PH-8\DRAWINGS\Improvement Plans\(39-44) Miscellaneous Details.dwg, Plotted: May 28, 2024 - 8:36am



NOTES:

1. THE CONTRACTOR SHALL FURNISH HYDRANT BRANCHES HAVING RESTRAINED MECHANICAL JOINTS INCLUDING HYDRANT SHOE. ALL MECHANICAL JOINTS SHALL BE POLYETHYLENE WRAPPED IN ACCORDANCE WITH AWWA C-105/A21.5-88 CLASS "C", METHOD "B".
2. ALL BOLTS AND NUTS FURNISHED WITH RESTRAINED MECHANICAL JOINTS INCLUDING RETAINER OR WEDGE ACTION TYPE GLANDS SHALL BE GRADE 5 HIGH STRENGTH GALVANIZED STEEL OR EQUIVALENT.

CITY ENGINEER: | CITY OF NORTH RIDGEVILLE, OHIO STANDARD CONSTRUCTION DRAWINGS
DATE 12/1/08 | SCALE N/A
HYDRANT TYPE B
DETAIL WAT-3 | PAGE 1 OF 1



NOTES:

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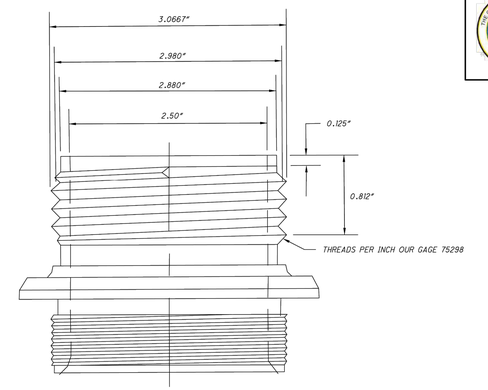
CITY ENGINEER: | CITY OF NORTH RIDGEVILLE, OHIO STANDARD CONSTRUCTION DRAWINGS
DATE 12/1/08 | SCALE N/A
END FLUSHING ASSEMBLY HYDRANT TYPE C
DETAIL WAT-4 | PAGE 1 OF 1

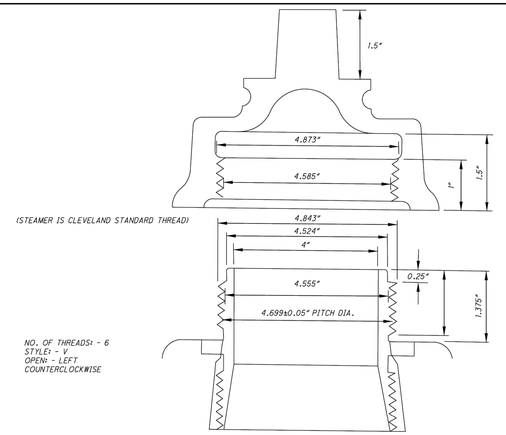


NOTE:

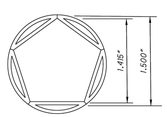
(2-1/2" IS NATIONAL STANDARD THREAD) HOSE NOZZLES 2.5" THREADS 3-1/16" O.D. 7-1/2 THREADS PER INCH

NATIONAL STANDARD PENTAGONAL OPERATING NUT

CITY ENGINEER: | CITY OF NORTH RIDGEVILLE, OHIO STANDARD CONSTRUCTION DRAWINGS
DATE 12/1/08 | SCALE N/A
2-1/2" HOSE NOZZLE HYDRANT CONNECTION
DETAIL WAT-5 | PAGE 1 OF 1

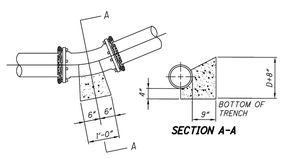


HOSE AND STEAMER NOZZLE AND CAP



NATIONAL STANDARD PENTAGONAL OPERATING NUT

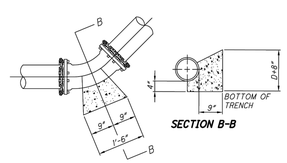
CITY ENGINEER: | CITY OF NORTH RIDGEVILLE, OHIO STANDARD CONSTRUCTION DRAWINGS
DATE 12/1/08 | SCALE N/A
4" PUMPER NOZZLE HYDRANT CONNECTION
DETAIL WAT-6 | PAGE 1 OF 1



SECTION A-A

PLAN

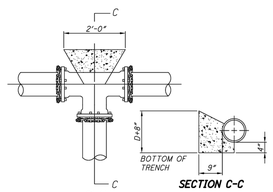
(22-1/2 DEGREE) BEND



SECTION B-B

PLAN

(45 DEGREE) BEND



SECTION C-C

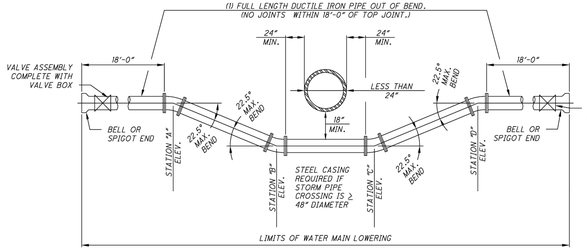
PLAN

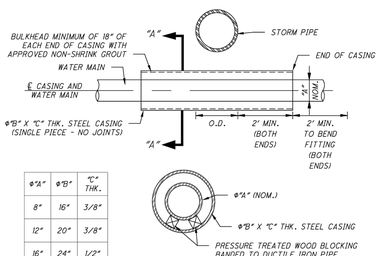
TEE AND TAPPING SLEEVES

NOTES:

1. ALL DIMENSIONS SHOWN HEREON ARE MINIMUM; THRUST BLOCK SHALL BE POURED TO UNDISTURBED EARTH.
2. ALL CONCRETE FOR THRUST BLOCKS SHALL BE CLASS "QC1" HAVING 4,000 PSI 28 DAY COMPRESSIVE STRENGTH.
3. DO NOT COVER BOLTS WITH CONCRETE ON MECHANICAL JOINTS.
4. USE FORMS WHEN POURING CONCRETE TO MAINTAIN SHAPE AND DIMENSIONS OF THRUST BLOCKS.
5. MEGA-LUGS ARE AN ACCEPTABLE OPTION.
6. MASONRY/CONCRETE BLOCKS MAY BE USED FOR WEDGING. WOOD SHALL NOT BE PERMITTED. BLOCKS SHALL BE 6"x8"x16" (MIN.) SOLID.
7. D = OUTSIDE PIPE DIAMETER.

CITY ENGINEER: | CITY OF NORTH RIDGEVILLE, OHIO STANDARD CONSTRUCTION DRAWINGS
DATE 12/1/08 | SCALE N/A
THRUST BLOCK DETAIL
DETAIL WAT-7 | PAGE 1 OF 1





"A"	"B"	"C" THK.
8"	16"	3/8"
12"	20"	3/8"
16"	24"	1/2"

SECTION A-A

STEEL CASING DETAIL

NOTES:

1. WATER MAIN SHALL BE DUCTILE IRON, MINIMUM CLASS 52, CEMENT LINED PUSH-ON JOINT PIPE WITH RESTRAINED MECHANICAL JOINT DUCTILE IRON CLASS 350, CEMENT LINED RESTRAINED MECHANICAL JOINT FITTINGS.
2. WHERE DEPTH OF LOWERING REQUIRES AN INTERMEDIATE JOINT BETWEEN STATIONS "A" & "B" AND/OR "C" & "D" THE ENTIRE LOWERING SHALL BE MADE WITH DUCTILE IRON, MINIMUM CLASS 52 CEMENT LINED PIPE AND DUCTILE IRON CLASS 350, CEMENT LINED FITTINGS ALL HAVING BOLTLESS RESTRAINED PUSH-ON JOINTS, TYPE I.
3. WHERE LENGTH OF LOWERING UNDER OBSTRUCTION(S) REQUIRE AN INTERMEDIATE JOINT ONLY BETWEEN STATIONS "B" & "C", AND PIPE JOINTS ARE AS INDICATED IN NOTE "1" ABOVE, THAT INTERMEDIATE JOINT(S) SHALL BE MADE WITH A BOLTLESS RESTRAINED PUSH-ON JOINT, TYPE II.
4. WHERE LENGTH OF LOWERING UNDER OBSTRUCTION(S) REQUIRES AN INTERMEDIATE JOINT ONLY BETWEEN "B" & "C" AND PIPE JOINTS ARE AS INDICATED IN NOTE "2" ABOVE, THAT INTERMEDIATE JOINT(S) SHALL BE MADE WITH A BOLTLESS RESTRAINED PUSH-ON JOINT, TYPE I.
5. STEEL CASING SHALL BE PER THE DETAIL FOUND ON THIS SHEET. CASING SHALL BE UNCOATED - UNPROTECTED STEEL CASING PER ASTM A-53-89A (AWWA-C-200-91)

CITY ENGINEER: | CITY OF NORTH RIDGEVILLE, OHIO STANDARD CONSTRUCTION DRAWINGS
DATE 12/1/08 | SCALE N/A
WATER MAIN LOWERING
DETAIL WAT-9 | PAGE 1 OF 1

REVISION	DATE:	BY:	DESCRIPTION:
	11/17/2023	CLH	ISSUE TO CITY FOR ENGINEERING REVIEW
	12/19/2023	CLH	ISSUE TO OEPA FOR REVIEW
	02/27/2024	CLH	REVISED CITY COMMENTS
	04/23/2024	CLH	REVISED PER CITY COMMENTS
	05/24/2024	CLH	REVISED PER CITY COMMENTS

DRAWN BY: SJM
CHECKED BY: CLH

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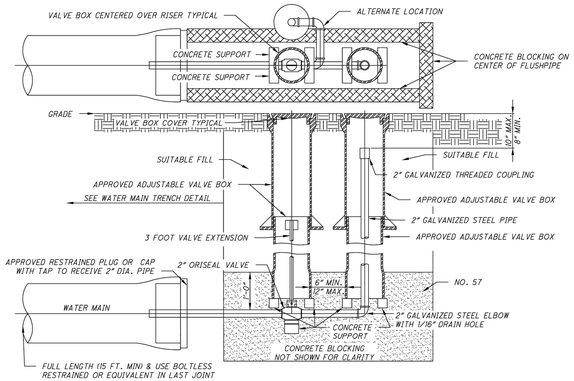
ENGINEERING AND SURVEYING COMPANY
801 MOORE ROAD AVON, OHIO 44011
(440) 934 - 7878 (440) 934 - 7879 FAX

PREPARED FOR:
VALORE PROPERTIES, INC.
23550 CENTER RIDGE ROAD
WESTLAKE, OH 44145

HAMPTON PLACE SUBDIVISION - PHASE 8
MISCELLANEOUS DETAILS
CITY OF NORTH RIDGEVILLE, COUNTY OF LORAIN, STATE OF OHIO

SHEET 42 OF 52
JOB NO. 20-5445-8

I:\2054\45-8 Hampton Place PH-8\DRAWINGS\Improvement Plans\(39-44) Miscellaneous Details.dwg, Plotted: May 28, 2024 - 8:38am

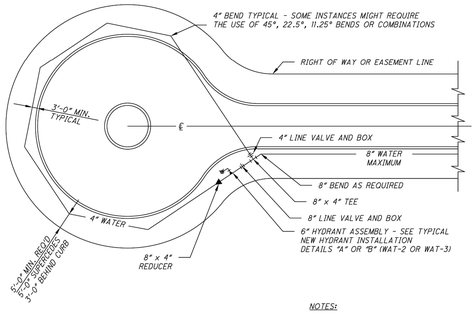


CITY ENGINEER: CITY OF NORTH RIDGEVILLE, OHIO STANDARD CONSTRUCTION DRAWINGS

DATE 12/1/08 | SCALE N/A

TYPICAL FLUSHING ASSEMBLY

DETAIL WAT-10 | PAGE 1 OF 1



NOTES:

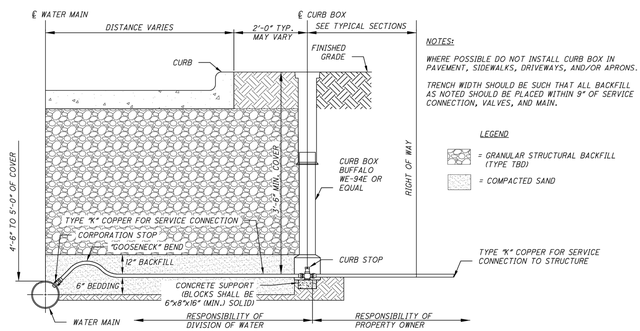
1. THRUST BLOCKS REQUIRED BEHIND ALL TEES AND BENDS (PER WAT-7).
2. LINE VALVE AND HYDRANT TO BE AS CLOSE TO THE TEE AS POSSIBLE. HYDRANT TEE TO BE WITHIN 18'-0" OF 8" x 4" TEE. IF 18'-0" LENGTH IS EXCEEDED, USE ALTERNATE CUL-DE-SAC SCHEMATIC (AS APPROVED BY THE CITY ENGINEER).
3. ALL PUSH ON JOINTS BETWEEN BENDS TO BE BOLTLESS RESTRAINED TYPE 11.

CITY ENGINEER: CITY OF NORTH RIDGEVILLE, OHIO STANDARD CONSTRUCTION DRAWINGS

DATE 12/1/08 | SCALE N/A

STANDARD CUL-DE-SAC HYDRANT LOOP SCHEMATIC

DETAIL WAT-11 | PAGE 1 OF 1



NOTES:

WHERE POSSIBLE DO NOT INSTALL CURB BOX IN PAVEMENT, SIDEWALKS, DRIVEWAYS, AND/OR APRONS.

TRENCH WIDTH SHOULD BE SUCH THAT ALL BACKFILL AS NOTED SHOULD BE PLACED WITHIN 9" OF SERVICE CONNECTION, VALVES, AND MAIN.

LEGEND

= GRANULAR STRUCTURAL BACKFILL (TYPE TBD)

= COMPACTED SAND

NOTES:

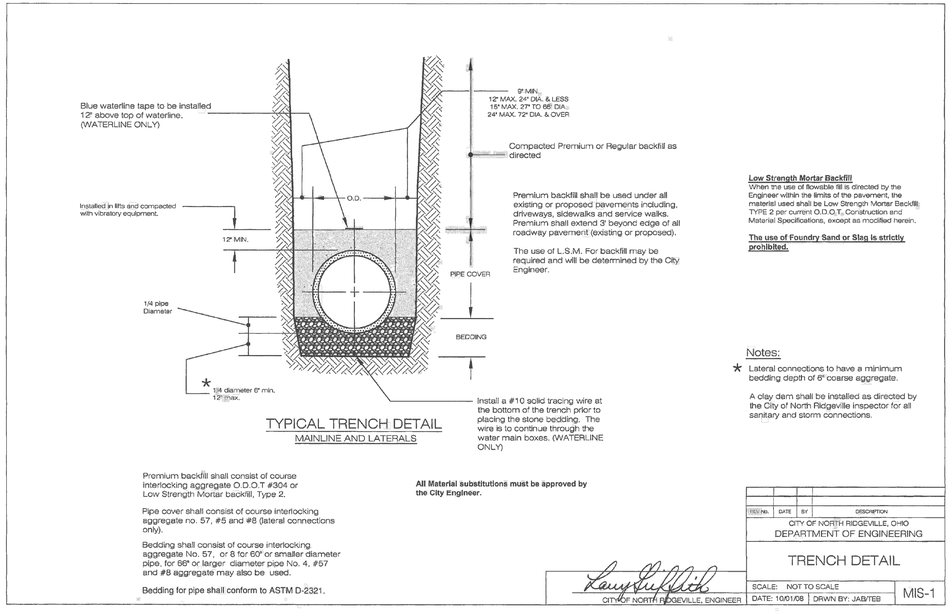
1. CONTRACTOR SHALL USE SPECIAL CARE IN PLACING THE SAND BEDDING BACKFILL, SO AS TO AVOID SCRAPING OF THE EXTERIOR COATING, INJURING THE PIPE, DISTORTING OR MOVING THE PIP WHEN COMPACTING THE SAND. THE SAND BEDDING BACKFILL SHALL BE TAMPED IN SIX (6) INCH LAYERS, SIMULTANEOUSLY ON EACH SIDE OF THE PIPE, AND THOROUGHLY COMPACTED SO AS TO PROVIDE A SOLID BACKING AGAINST THE EXTERNAL SURFACE OF THE PIPE.
2. MINIMUM COMPACTION FOR ALL SAND BEDDING BACKFILL, BACKFILL AND PREMIUM BACKFILL SHALL BE 95% STANDARD PROCTOR.

CITY ENGINEER: CITY OF NORTH RIDGEVILLE, OHIO STANDARD CONSTRUCTION DRAWINGS

DATE 12/1/08 | SCALE N/A

1" SERVICE CONNECTION

DETAIL WAT-13 | PAGE 1 OF 1



TYPICAL TRENCH DETAIL
MAINLINE AND LATERALS

Low Strength Mortar Backfill
When the use of flowable fill is directed by the Engineer within the limits of the pavement, the material used shall be Low Strength Mortar Backfill, TYPE 2 per current O.D.O.T. Construction and Material Specifications, except as modified herein.

The use of Foundry Sand or Slag is strictly prohibited.

Notes:

* Lateral connections to have a minimum bedding depth of 6" coarse aggregate.

A clay dam shall be installed as directed by the City of North Ridgeville inspector for all sanitary and storm connections.

Premium backfill shall consist of course interlocking aggregate O.D.O.T #304 or Low Strength Mortar backfill, Type 2.

Pipe cover shall consist of course interlocking aggregate no. 57, #5 and #8 (lateral connections only).

Bedding shall consist of course interlocking aggregate No. 57, or 8 for 60" or smaller diameter pipe, for 66" or larger diameter pipe No. 4, #57 and #8 aggregate may also be used.

Bedding for pipe shall conform to ASTM D-2321.

All Material substitutions must be approved by the City Engineer.

REV No.	DATE	BY	DESCRIPTION

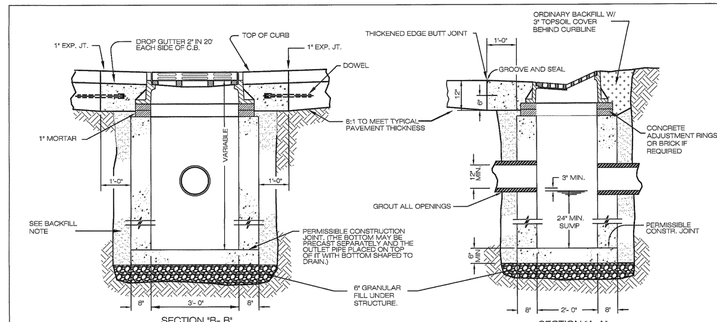
CITY OF NORTH RIDGEVILLE, OHIO
DEPARTMENT OF ENGINEERING

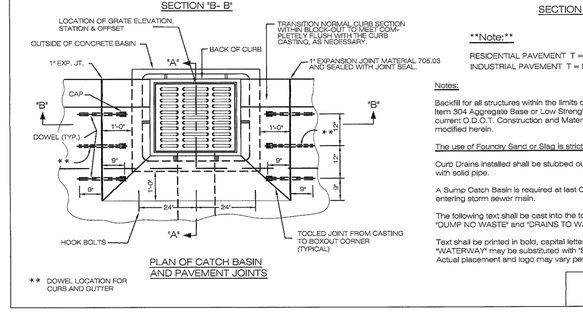
TRENCH DETAIL

SCALE: NOT TO SCALE | DATE: 10/01/08 | DRWN BY: JAB/TEB | MIS-1

CITY OF NORTH RIDGEVILLE, ENGINEER

Rev. 8/20/2014





PLAN OF CATCH BASIN AND PAVEMENT JOINTS

* * DOWEL LOCATION FOR CURB AND GUTTER

Note:

RESIDENTIAL PAVEMENT T = 8" (1% 18" Long Dia. Dowel)
INDUSTRIAL PAVEMENT T = 8" (1½" x 18" Long Dia. Dowel)

Notes:

Backfill for all structures within the limits of the pavement shall be ODOT Item 304 Aggregate Base or Low Strength Mortar Backfill, TYPE 2 per current O.D.O.T. Construction and Material Specifications, except as modified herein.

The use of Foundry Sand or Slag is strictly prohibited.

Curb Drains installed shall be stubbed out 1' past the limits of excavation with solid pipe.

A Sump Catch Basin is required at last Catch Basin location before entering storm sewer main.

The following text shall be cast into the top of the grate: "DUMP NO WASTE" and "DRAINS TO WATERWAY"

Text shall be printed in bold, capital letters with a minimum height of 0.5". "WATERWAY" may be substituted with "STREAM", "RIVER", "LAKE", etc. Actual placement and logo may vary per manufacturer.

NOTES

CASTINGS SHALL MINIMALLY MEET THE REQUIREMENTS OF 604-711.12, A.S.T.M. A 48, CLASS 35 GRAY IRON OR 711.13 DUCTILE IRON, AFTER ACCEPTANCE, EXPOSED PARTS OF CURB CASTING TO BE THOROUGHLY CLEANED AND GIVEN ONE COAT OF ASPHALT VARNISH OR COAL TAR PITCH PAINT, AT THE SITE.

TOTAL MINIMUM ASSEMBLY WEIGHT = 600 LBS. SUBJECT TO THE ABOVE, THE FOLLOWING OR APPROVED EQUAL CASTINGS ARE ACCEPTED: NEENAH No. R-3501-TR OR 3501-TL OR EAST JORDAN 7495 W/ M1, M2 OR M4 GRATE, WHICHEVER IS APPROPRIATE.

BEARING AREAS OF FRAME AND GRATE SHALL BE SO FITTED AND FINISHED AS TO PROVIDE A FIRM AND EVEN SEAT FOR ALL PORTIONS OF THE GRATE IN THE FRAME. NO PROJECTIONS SHALL EXIST ON BEARING AREAS OF EITHER CASTING AND THE GRATE SHALL SEAT IN ITS FRAME WITHOUT ROCKING. EACH FRAME AND GRATE SHALL BE FITTED, MATCHED AND MARKED BEFORE DELIVERY TO THE PROJECT.

DOWELS: FOUR (4) 1"x18" DOWELS ARE REQUIRED FOR CONCRETE PAVEMENT OR GUTTER BLOCKOUT.

BRICK OR CONCRETE BLOCK SIDE WALLS, WHEN USED IN LIEU OF PRECAST CONCRETE, SHALL BE EIGHT (8) INCHES NOMINAL THICKNESS.

PRECAST CONSTRUCTION IS PERMITTED, (EXCEPT FOR THE BLOCK-OUT PAVEMENT) AND CONCRETE SHALL MEET THE REQUIREMENTS OF 706.13 WITH SIX PLUS OR MINUS TWO PERCENT (6±2%) AIR VOID CONTENT IN THE HARDENED CONCRETE. PRECAST WALLS SHALL HAVE A MINIMUM THICKNESS OF SIX (6) INCHES AND REINFORCING SHALL BE SUFFICIENT TO PERMIT SHIPPING AND PLACEMENT WITHOUT DAMAGE.

PRECAST CATCH BASIN: A PRECAST CONCRETE CHAMBER MAY BE USED. THE WALL THICKNESS SHALL BE A MINIMUM OF 6", REINFORCING STEEL SHALL BE USED IN ALL CASES. No. 3 BARS SHALL BE USED WHERE THE WALL HEIGHT FROM THE TOP OF THE WALL TO BOTTOM OF SLAB IS 3 FEET OR LESS AND No. 4 BARS SHALL BE USED WHEN THE WALL HEIGHT EXCEEDS 3 FEET. SHOP DRAWINGS SHALL BE REQUIRED IF PRECAST CONCRETE STRUCTURE IS USED.

BLOCKOUT: WHERE ONE SIDE OF THE BLOCKOUT IS LOCATED AT A TRANSVERSE PAVEMENT JOINT THE TRANSVERSE PAVEMENT JOINT SHALL BE THICKENED AND CONTINUED IN KIND WITHIN THE LIMITS OF THE BLOCKOUT, EXCEPT AS DESCRIBED ABOVE, BLOCKOUTS SHALL BE LOCATED NO CLOSER THAN FIVE (5) FEET FROM A TRANSVERSE PAVEMENT JOINT. WHERE THE SPECIFIED CATCH BASIN WORK REQUIRES THE CONSTRUC- TION/RECONSTRUCTION OF BLOCKOUTS IN EXISTING PAVEMENT, THE BLOCKOUTS SHALL CONFORM, AS CLOSELY AS POSSIBLE, TO THE DE- TAILS SHOWN HEREON EXCEPT THAT THE DOWELS SHALL BE PLACED/ REPLACED IN ACCORDANCE WITH THE "SECTION-TYPE 'K' JOINT, PER O.D.O.T. CONSTRUCTION DRAWING BP-2.6C. (*SECTION=TYPE 'Y' JOINT WHERE BLOCKOUT JOINT IS AT A EXISTING CONTRACTION OR HINGE JOINT LOCATION.) A CLASS 'C' CONCRETE APRON, THE SIZE OF THE TWO (2) FOOT GUTTER BLOCKOUT, SHALL BE CAST IN PLACE IN FLEXIBLE PAVEMENT AND NO DOWELS ARE REQUIRED.

REV No.	DATE	BY	DESCRIPTION

CITY OF NORTH RIDGEVILLE, OHIO
DEPARTMENT OF ENGINEERING

CATCH BASIN MOUNTABLE CURB

SCALE: NOT TO SCALE | DATE: 10/01/08 | DRWN BY: JAB/TEB | STM-2

CITY OF NORTH RIDGEVILLE, ENGINEER

J:\20\5445-8 Hampton Place PH-8\DRAWINGS\Improvement Plans\(39-44) Miscellaneous Details.dwg, Plotted: May 29, 2024 - 8:36am

REVISION	DATE:	BY:	DESCRIPTION:
	11/17/2023	CLH	ISSUE TO CITY FOR ENGINEERING REVIEW
	12/19/2023	CLH	ISSUE TO OEPA FOR REVIEW
	02/27/2024	CLH	REVISED CITY COMMENTS
	04/23/2024	CLH	REVISED PER CITY COMMENTS
	05/24/2024	CLH	REVISED PER CITY COMMENTS

DRAWN BY: SJM

CHECKED BY: CLH

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801 MOORE ROAD AVON, OHIO 44011
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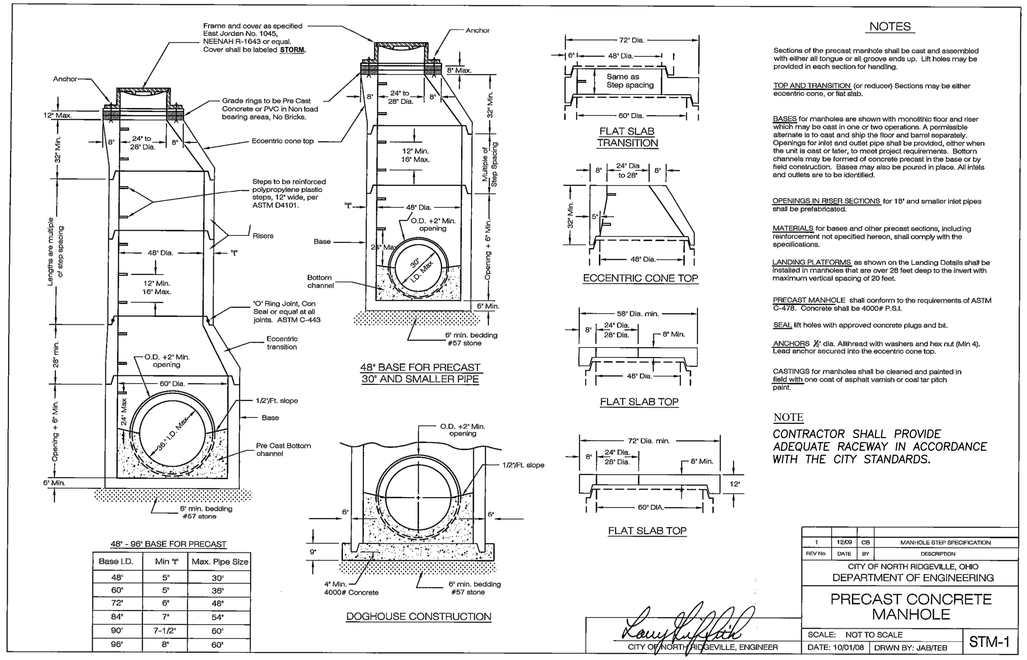
PREPARED FOR:

VALORE PROPERTIES, INC.
23550 CENTER RIDGE ROAD
WESTLAKE, OH 44145

HAMPTON PLACE SUBDIVISION - PHASE 8
MISCELLANEOUS DETAILS
CITY OF NORTH RIDGEVILLE, COUNTY OF LORAIN, STATE OF OHIO

SHEET 43 OF 52

JOB NO. 20-5445-8



NOTES

Sections of the precast manhole shall be cast and assembled with either all tongue or all groove ends up. Lift holes may be provided in each section for handling.

TOP AND TRANSITION (or reducer) Sections may be either eccentric cone, or flat slab.

BASES for manholes are shown with monolithic floor and riser which may be cast in one or two operations. A permissible alternate is to cast and ship the floor and barrel separately. Openings for inlet and outlet pipe shall be provided, either when the unit is cast or later, to meet project requirements. Bottom channels may be formed of concrete precast in the base or by field construction. Bases may also be poured in place. All inlets and outlets are to be identified.

OPENINGS IN RISER SECTIONS for 18" and smaller inlet pipes shall be prefabricated.

MATERIALS for bases and other precast sections, including reinforcement not specified hereon, shall comply with the specifications.

LANDING PLATFORMS as shown on the Landing Details shall be installed in manholes that are over 28 feet deep to the invert with maximum vertical spacing of 20 feet.

PRECAST MANHOLE shall conform to the requirements of ASTM C-478. Concrete shall be 4000# P.S.I.

SEAL lift holes with approved concrete plugs and bit.

ANCHORS ⅝" dia. Allthread with washers and hex nut (Min 4). Lead anchor secured into the eccentric cone top.

CASTINGS for manholes shall be cleaned and painted in field with one coat of asphalt varnish or coal tar pitch paint.

NOTE

CONTRACTOR SHALL PROVIDE ADEQUATE RACEWAY IN ACCORDANCE WITH THE CITY STANDARDS.

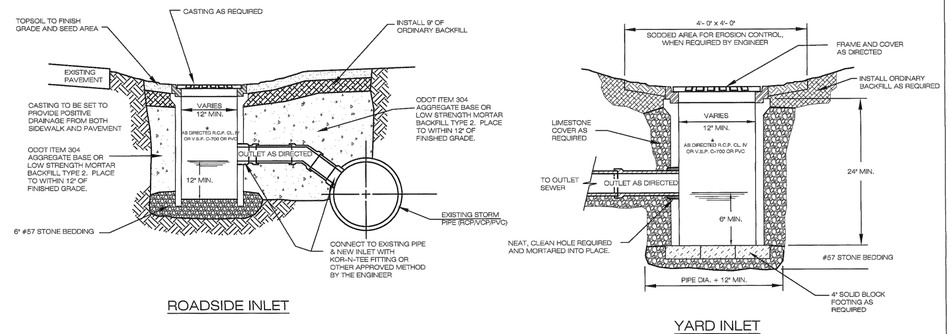
CITY OF NORTH RIDGEVILLE, ENGINEER

REV No.	DATE	BY	DESCRIPTION
1	12/09	CB	MANHOLE STEP SPECIFICATION

CITY OF NORTH RIDGEVILLE, OHIO
DEPARTMENT OF ENGINEERING

PRECAST CONCRETE MANHOLE

SCALE: NOT TO SCALE
DATE: 10/01/08 | DRWN BY: JAB/TEB | STM-1



ROADSIDE INLET

YARD INLET
GENERAL AREA

Notes:

Backfill for all structures within 5' of the pavement shall be ODOT Item 304 Aggregate Base or Low Strength Mortar Backfill, TYPE 2 per current O.D.O.T. Construction and Material Specifications, except as modified herein.

The use of Foundry Sand or Slag is strictly prohibited.

* PIPE SIZE AS DIRECTED BY THE ENGINEER (MINIMUM 12")

CATALOG No.				
*	**	*	**	
EAST JORDAN	EAST JORDAN	NEENAH	NEENAH	PIPE SIZE
6632	6012	R-4340-H	R-4030-12	12"
6633	6015	R-4340-G	R-4030-15	15"
6534	6018	R-4340-F1	R-4030-18	18"
6536	6024M1	R-4340-F	R-4030-24	24"

OTHER CASTINGS ACCEPTED UPON APPROVAL OF THE CITY ENGINEER
* INDICATES DOMED OR BEEHIVE GRATE CATALOG No.
** INDICATES FLAT GRATE CATALOG No.

IF NECESSARY, BICYCLE SAFE GRATE SHALL BE SPECIFIED IN THE PLANS.

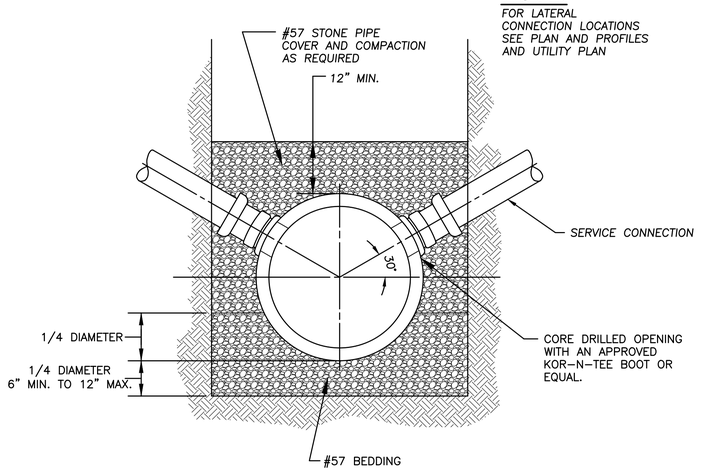
CITY OF NORTH RIDGEVILLE, ENGINEER

REV No.	DATE	BY	DESCRIPTION

CITY OF NORTH RIDGEVILLE, OHIO
DEPARTMENT OF ENGINEERING

ROADSIDE & YARD INLET DETAILS

SCALE: NOT TO SCALE
DATE: 10/01/08 | DRWN BY: JAB/TEB | STM-8

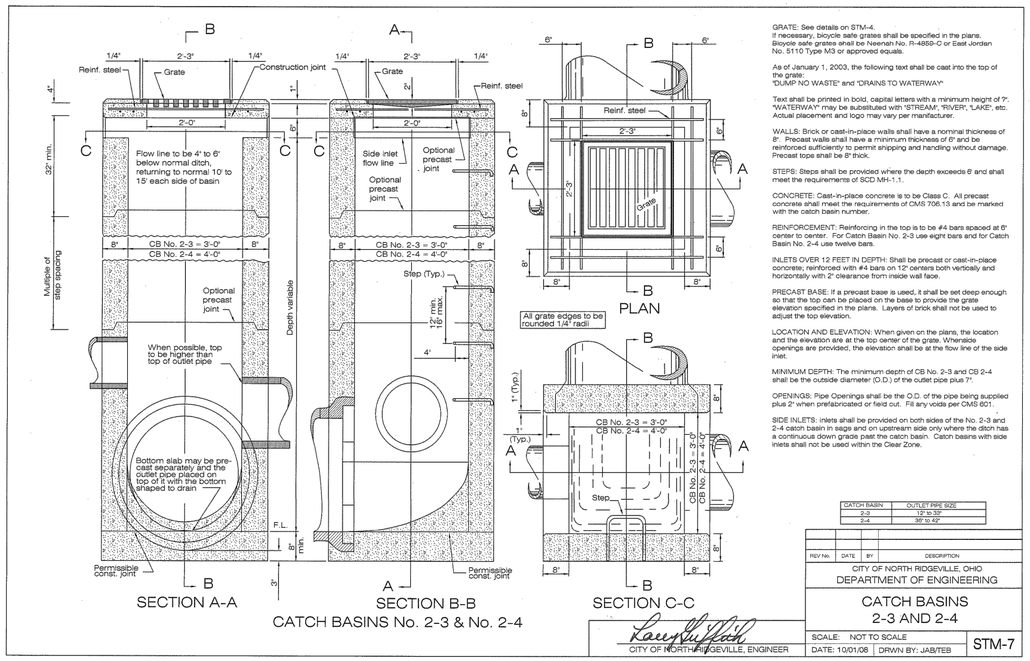


NOTE:

FOR LATERAL CONNECTION LOCATIONS SEE PLAN AND PROFILES AND UTILITY PLAN

SPECIAL STORM SEWER LATERAL CONNECTION DETAIL

NTS



GRATE: See details on STM-4.
If necessary, bicycle safe grates shall be specified in the plans. Bicycle safe grates shall be Neenah No. R-4869-C or East Jordan No. 5110 Type M3 or approved equals.

As of January 1, 2003, the following text shall be cast into the top of the grate:
"DUMP NO WASTE" and "DRAINS TO WATERWAY"

Text shall be printed in bold, capital letters with a minimum height of ?". "WATERWAY" may be substituted with "STREAM", "RIVER", "LAKE", etc. Actual placement and logo may vary per manifacturer.

WALLS: Brick or cast-in-place walls shall have a nominal thickness of 8". Precast walls shall have a minimum thickness of 6" and be reinforced sufficiently to permit shipping and handling without damage. Precast tops shall be 8" thick.

STEPS: Steps shall be provided where the depth exceeds 6' and shall meet the requirements of SCD MH-1.1.

CONCRETE: Cast-in-place concrete is to be Class C. All precast concrete shall meet the requirements of CMS 706.13 and be marked with the catch basin number.

REINFORCEMENT: Reinforcing in the top is to be #4 bars spaced at 6" center to center. For Catch Basin No. 2-3 use eight bars and for Catch Basin No. 2-4 use twelve bars.

INLETS OVER 12 FEET IN DEPTH: Shall be precast or cast-in-place concrete; reinforced with #4 bars on 12" centers both vertically and horizontally with 2" clearance from inside wall face.

PRECAST BASE: If a precast base is used, it shall be set deep enough so that the top can be placed on the base to provide the grate elevation specified in the plans. Layers of brick shall not be used to adjust the top elevation.

LOCATION AND ELEVATION: When given on the plans, the location and the elevation are at the top center of the grate. Wherside openings are provided, the elevation shall be at the flow line of the side inlet.

MINIMUM DEPTH: The minimum depth of CB No. 2-3 and CB 2-4 shall be the outside diameter (O.D.) of the outlet pipe plus 7".

OPENINGS: Pipe Openings shall be the O.D. of the pipe being supplied plus 2" when prefabricated or field cut. Fill any voids per CMS 601.

SIDE INLETS: Inlets shall be provided on both sides of the No. 2-3 and 2-4 catch basin in sags and on upstream side only where the ditch has a continuous down grade past the catch basin. Catch basins with side inlets shall not be used within the Clear Zone.

CATCH BASIN	OUTLET PIPE SIZE
2-3	12" to 30"
2-4	36" to 42"

REV No.	DATE	BY	DESCRIPTION

CITY OF NORTH RIDGEVILLE, OHIO
DEPARTMENT OF ENGINEERING

CATCH BASINS 2-3 AND 2-4

SCALE: NOT TO SCALE
DATE: 10/01/08 | DRWN BY: JAB/TEB | STM-7

CITY OF NORTH RIDGEVILLE, ENGINEER

REVISION	DATE:	BY:	DESCRIPTION:
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DRAWN BY: SJM
CHECKED BY: CLH

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PREPARED FOR:

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23550 CENTER RIDGE ROAD
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HAMPTON PLACE SUBDIVISION - PHASE 8
MISCELLANEOUS DETAILS
CITY OF NORTH RIDGEVILLE, COUNTY OF LORAIN, STATE OF OHIO

SHEET 44 OF 52
JOB NO. 20-5445-8

I:\20544\5-8 Hampton Place PH-8\DRAWINGS\Improvement Plans\(09-44) Miscellaneous Details.dwg, Plotted: May 28, 2024 - 8:36am

SWP3 LEGEND OF SYMBOLS AND LINETYPES

- MgA — SOIL TYPE
- IP — INLET PROTECTION
- TS — TEMPORARY SEEDING & MULCHING
- PS — PERMANENT SEEDING & MULCHING
- CE — CONSTRUCTION ENTRANCE
- WO — WASHOUT PIT
- SA — STAGING AREA (SEE NOTE 6)

- 604 / 605 — EXISTING CONTOURS (PER FIELD TOPO GATHERED IN DECEMBER OF 2022)
- 604 / 605 — PROPOSED CONTOURS (PHASE 8 IMPROVEMENTS)
- 604 / 605 — PHASE 7 IMPROVEMENTS CONTOURS
- SF — FILTER FABRIC FENCE
- W/L — WORK LIMITS
- SOIL BOUNDARY LIMITS
- PROPOSED DIVERSION SWALE

CONTRACTOR SHALL INSTALL ALL SEDIMENT CONTROL MEASURES WITHIN 7 DAYS OF CLEARING AND GRUBBING.

PRIOR TO CONSTRUCTION STARTING THE CONTRACTOR AND SUBCONTRACTOR SHALL COMPLETE THE SIGNATURE LIST FOUND ON SHEET 47 OF 51 AND SUBMIT IT TO THE CITY OF NORTH RIDGEVILLE ENGINEERING DEPARTMENT

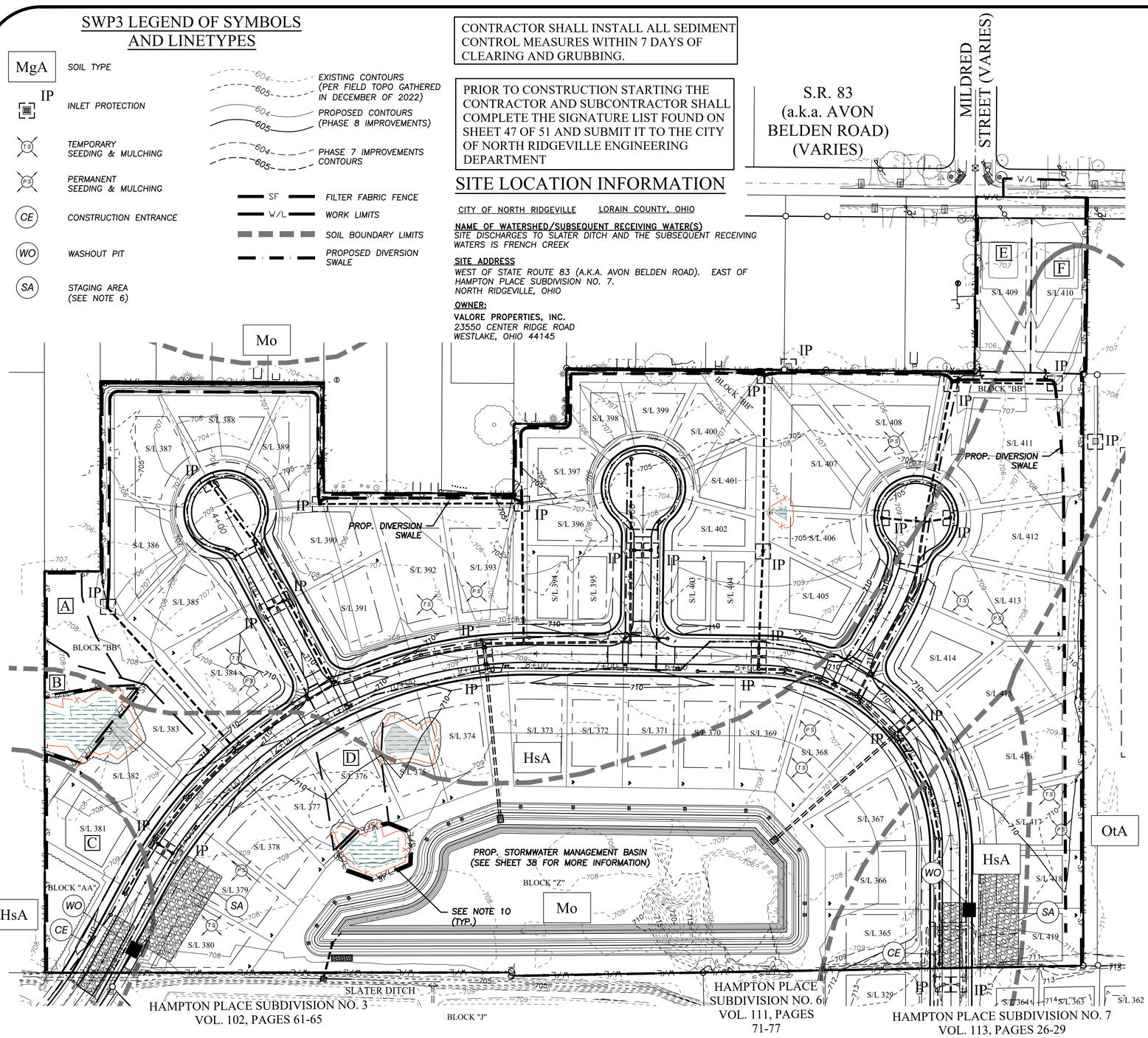
SITE LOCATION INFORMATION

CITY OF NORTH RIDGEVILLE LORAIN COUNTY, OHIO

NAME OF WATERSHED/SUBSEQUENT RECEIVING WATER(S)
SITE DISCHARGES TO SLATER DITCH AND THE SUBSEQUENT RECEIVING WATERS IS FRENCH CREEK

SITE ADDRESS
WEST OF STATE ROUTE 83 (A.K.A. AVON BELDEN ROAD). EAST OF HAMPTON PLACE SUBDIVISION NO. 7.
NORTH RIDGEVILLE, OHIO

OWNER:
VALORE PROPERTIES, INC.
23550 CENTER RIDGE ROAD
WESTLAKE, OHIO 44145



SILT FENCE DRAINAGE AREAS

	DRAINAGE AREA		SILT FENCE LENGTH	DRAINAGE AREA PER 100 L.F. SILT FENCE
A	7,496 S.F.	0.17 OF AN ACRE	146 L.F.	0.12 OF AN ACRE
B	4,162 S.F.	0.10 OF AN ACRE	222 L.F.	0.05 OF AN ACRE
C	43,663 S.F.	1.00 ACRE	510 L.F.	0.20 OF AN ACRE
D	13,501 S.F.	0.31 OF AN ACRE	92 L.F.	0.31 OF AN ACRE
E	16,988 S.F.	0.39 OF AN ACRE	220 L.F.	0.18 OF AN ACRE
F	17,052 S.F.	0.39 OF AN ACRE	220 L.F.	0.18 OF AN ACRE

PROJECT DESCRIPTION

1. THE PROJECT INCLUDES THE CONSTRUCTION OF A SUBDIVISION OF SINGLE-FAMILY HOMES AND CLUSTER HOMES IN A RESIDENTIAL AREA. THE PROJECT INCLUDES THE CONSTRUCTION OF A CURBED CONCRETE ROAD, DRAINAGE IMPROVEMENTS, WATERLINE AND SANITARY SERVICE.
2. PRIOR LAND USE WAS FARM FIELD & WOODS.
3. THE ESTIMATED START DATE OF CONSTRUCTION IS JUNE 3, 2024 AND THE ESTIMATED COMPLETION DATE IS JANUARY 31, 2025.

SITE/ OPERATOR CONTACT INFORMATION:

COMPANY: VALORE PROPERTIES, INC.
CONTACT: ANTHONY VALORE
ADDRESS: 23550 CENTER RIDGE ROAD
WESTLAKE, OHIO 44145

SWP3 AUTHORIZATION AGENT CONTACT INFORMATION:

CHRISTOPHER L. HOWARD, P.E., CPESC No. 5294
BRAMHALL ENGINEERING AND SURVEYING COMPANY
801 MOORE ROAD
AVON, OHIO 44011
(440) 934-7878

CERTIFIED PROFESSIONAL IN EROSION AND SEDIMENT CONTROL — CPESC — Christopher L. Howard, No. 5294

NOTES

1. THE FOLLOWING SOIL TYPES ARE FOUND WITHIN THE PROJECT LIMITS

   HsA — HASKINS LOAM, 0 TO 2 PERCENT SLOPES
   Mo — MERMILL LOAM
   OtA — OSHTEMO SANDY LOAM, 0 TO 2 PERCENT SLOPES

   SOIL DATA REFERENCED FROM WEB SOIL SURVEY LORAIN COUNTY, OHIO (OH093) SOILS MAPS VERSION 21, SEPTEMBER 7TH, 2023.

2. WASHOUT PIT LOCATION TO BE CONFIRMED WITH SITE SUPERINTENDENT. LOCATION SHOWN FOR INTENT ONLY AND IS APPROXIMATE.
3. ALL STORM SEWER SHALL BE JETTED AND CLEANED PRIOR TO OCCUPANCY.
4. DURING CONSTRUCTION CONTRACTOR SHALL PROVIDE ACCESS TO ALL RESIDENTS.
5. CONTRACTOR SHALL INSTALL DIVERSIONS SWALES AS SHOWN ON PLANS PRIOR OF ANY EARTH MOVING OPERATIONS AND CONSTRUCTION.
6. ALL FUEL TANKS & DRUMS, DUMPSTER FOR CONSTRUCTION DEBRIS, AND DISPOSAL/STORAGE OF SOLID, SANITARY AND OR TOXIC WASTES SHALL BE WITHIN THE STAGING AREA LIMITS, IF NEEDED.
7. ALL EROSION CONTROL MEASURES SHALL FOLLOW THE MOST CURRENT ODNR RAINWATER AND LAND DEVELOPMENT MANUAL.
8. CONTRACTOR SHALL MAINTAIN THE PROPOSED STORMWATER MANAGEMENT FACILITY DURING CONSTRUCTION IN ACCORDANCE WITH THE LATEST EDITION OF THE RAINWATER AND LAND DEVELOPMENT MANUAL. AFTER CONSTRUCTION IS COMPLETE CONTRACTOR SHALL CLEANOUT SEDIMENT OF THE BASIN AND RETURN TO DESIGN VOLUMES.
9. CONTRACTOR SHALL INSTALL EROSION CONTROL BLANKETS IN AREAS THAT ARE GREATER THAN 3:1 SLOPES.
10. CONTRACTOR SHALL INSTALL ORANGE CONSTRUCTION FENCE WITH A 10 FOOT BUFFER AROUND DELINEATED WETLANDS.

GRAPHIC SCALE
0 — 40 — 80 — 160
(IN FEET)
SCALE: 1" = 80'

REVISION	DATE:	BY:	DESCRIPTION:
	11/17/2023	CLH	ISSUE TO CITY FOR ENGINEERING REVIEW
	12/19/2023	CLH	ISSUE TO OEPA FOR REVIEW
	02/27/2024	CLH	REVISED CITY COMMENTS
	04/23/2024	CLH	REVISED PER CITY COMMENTS
	05/24/2024	CLH	REVISED PER CITY COMMENTS

DRAWN BY: SJM
CHECKED BY: CLH

BRAMHALL
ENGINEERING AND SURVEYING COMPANY
801 MOORE ROAD AVON, OHIO 44011
(440) 934 - 7878 (440) 934 - 7879 FAX

PREPARED FOR:
VALORE PROPERTIES, INC.
23550 CENTER RIDGE ROAD
WESTLAKE, OH 44145

HAMPTON PLACE SUBDIVISION - PHASE 8 INTERIM SWP3 PLAN

CITY OF NORTH RIDGEVILLE, COUNTY OF LORAIN, STATE OF OHIO

SHEET 45 OF 52
JOB NO. 20-5445-8

J:\20544S-8 Hampton Place PH-8\DRAWINGS\Improvement Plans\(45) Interim SWP3 Plan.dwg, Plotted: May 28, 2024 - 8:51am

SWP3 LEGEND OF SYMBOLS AND LINETYPES

- MgA — SOIL TYPE
- IP — INLET PROTECTION
- TS — TEMPORARY SEEDING & MULCHING
- PS — PERMANENT SEEDING & MULCHING
- CE — CONSTRUCTION ENTRANCE
- WO — WASHOUT PIT
- SA — STAGING AREA (SEE NOTE 6)

- 604 / 605 — EXISTING CONTOURS (PER FIELD TOPO GATHERED IN DECEMBER OF 2022)
- 604 / 605 — PROPOSED CONTOURS (PHASE 8 IMPROVEMENTS)
- 604 / 605 — PHASE 7 IMPROVEMENTS CONTOURS
- SF — FILTER FABRIC FENCE
- W/L — WORK LIMITS
- SOIL BOUNDARY LIMITS
- PROPOSED DIVERSION SWALE

CONTRACTOR SHALL INSTALL ALL SEDIMENT CONTROL MEASURES WITHIN 7 DAYS OF CLEARING AND GRUBBING.

PRIOR TO CONSTRUCTION STARTING THE CONTRACTOR AND SUBCONTRACTOR SHALL COMPLETE THE SIGNATURE LIST FOUND ON SHEET 47 OF 51 AND SUBMIT IT TO THE CITY OF NORTH RIDGEVILLE ENGINEERING DEPARTMENT

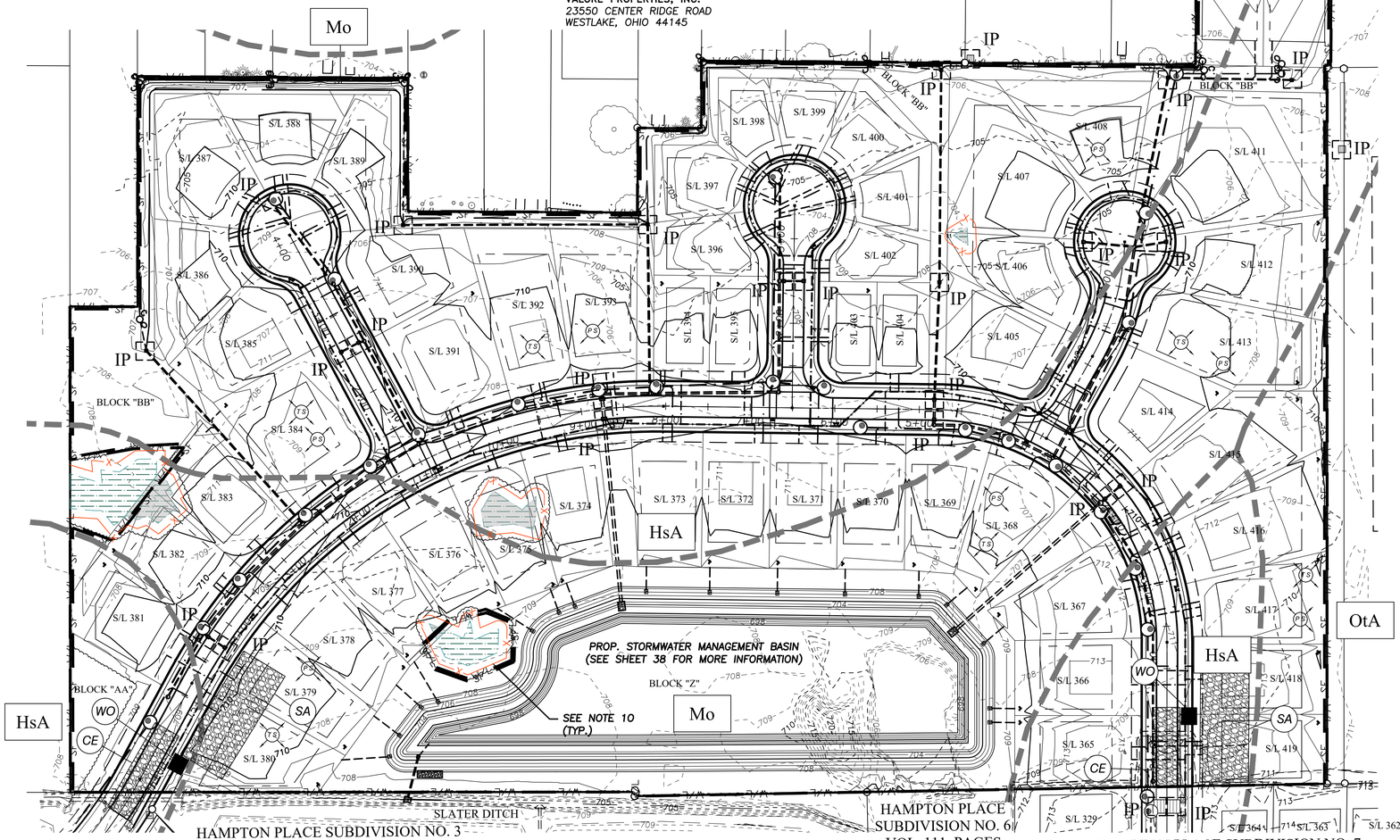
SITE LOCATION INFORMATION

CITY OF NORTH RIDGEVILLE LORAIN COUNTY, OHIO

NAME OF WATERSHED/SUBSEQUENT RECEIVING WATER(S)
SITE DISCHARGES TO SLATER DITCH AND THE SUBSEQUENT RECEIVING WATERS IS FRENCH CREEK

SITE ADDRESS
WEST OF STATE ROUTE 83 (A.K.A. AVON BELDEN ROAD). EAST OF HAMPTON PLACE SUBDIVISION NO. 7.
NORTH RIDGEVILLE, OHIO

OWNER:
VALORE PROPERTIES, INC.
23550 CENTER RIDGE ROAD
WESTLAKE, OHIO 44145



HAMPTON PLACE SUBDIVISION NO. 3
VOL. 102, PAGES 61-65

HAMPTON PLACE SUBDIVISION NO. 6
VOL. 111, PAGES 71-77

HAMPTON PLACE SUBDIVISION NO. 7
VOL. 113, PAGES 26-29

SITE INFORMATION

LIMITS OF DISTURBED AREA = 28.47 ACRES

PRE-CONSTRUCTION
AREA OF PAVEMENT/ROOFTOP = 0.13 OF AN ACRE
AREA OF WOODS/GRASS/FARM FIELD = 28.34 ACRES

POST-CONSTRUCTION
AREA OF PAVEMENT/ROOFTOP = 2.52 ACRES
AREA OF GRASS/LANDSCAPE = 25.95 ACRES

RUNOFF COEFFICIENT PRE-CONSTRUCTION SITE:
*((0.13 AC) * (0.95) + (28.34 AC) * (0.50))/28.47 = 0.50*

RUNOFF COEFFICIENT POST-CONSTRUCTION SITE:
*((2.52 AC) * (0.95) + (25.95 AC) * (0.50))/28.47 = 0.54*

*IMPERVIOUSNESS FOR PRE-CONSTRUCTION = (0.50) * 28.47 AC = 14.24*
*IMPERVIOUSNESS FOR POST-CONSTRUCTION = (0.58) * 28.47 AC = 15.37*
PERCENT IMPERVIOUSNESS CREATED BY CONSTRUCTION = 8%

GRAPHIC SCALE
0 — 80
40 — 160
(IN FEET)
SCALE: 1" = 80'

NOTES

1. *THE FOLLOWING SOIL TYPES ARE FOUND WITHIN THE PROJECT LIMITS*
   HsA – HASKINS LOAM, 0 TO 2 PERCENT SLOPES
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9. *CONTRACTOR SHALL INSTALL EROSION CONTROL BLANKETS IN AREAS THAT ARE GREATER THAN 3:1 SLOPES.*
10. *CONTRACTOR SHALL INSTALL ORANGE CONSTRUCTION FENCE WITH A 10 FOOT BUFFER AROUND DELINEATED WETLANDS.*
11. *SEE SHEET 45 FOR SILT FENCE DRAINAGE CALCULATIONS.*

PROJECT DESCRIPTION

1. *THE PROJECT INCLUDES THE CONSTRUCTION OF A SUBDIVISION OF SINGLE-FAMILY HOMES AND CLUSTER HOMES IN A RESIDENTIAL AREA. THE PROJECT INCLUDES THE CONSTRUCTION OF A CURBED CONCRETE ROAD, DRAINAGE IMPROVEMENTS, WATERLINE AND SANITARY SERVICE.*
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ADDRESS: 23550 CENTER RIDGE ROAD
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DRAWN BY: SJM
CHECKED BY: CLH

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PREPARED FOR:
VALORE PROPERTIES, INC.
23550 CENTER RIDGE ROAD
WESTLAKE, OH 44145

HAMPTON PLACE SUBDIVISION - PHASE 8
SWP3 PLAN
CITY OF NORTH RIDGEVILLE, COUNTY OF LORAIN, STATE OF OHIO

SHEET 46 OF 52
JOB NO. 20-5445-8

J:\20-5445-8 Hampton Place PH-8\DRAWINGS\Improvement Plans\(46) SWP3 Plan.dwg, Plotted: May 28, 2024, 8:37am

CITY OF NORTH RIDGEVILLE
SWP3 STANDARD GENERAL NOTES

GENERAL EROSION AND SEDIMENT CONTROL NOTES:
EROSION CONTROL SHALL CONSIST OF TEMPORARY CONTROL MEASURES AS DETAILED ON THE PLANS OR ORDERED BY THE GOVERNING AGENCY DURING THE LIFE OF THE CONTRACT TO CONTROL SOIL EROSION AND SEDIMENTATION THROUGH USE OF EROSION CONTROL BEST MANAGEMENT PRACTICES (BMP'S).

TEMPORARY EROSION AND SEDIMENT CONTROL ITEMS, THE LOCATION AND SIZE OF WHICH ARE DETAILED ON THE PLANS, SHALL BE INSTALLED BY THE CONTRACTOR PRIOR TO COMMENCEMENT OF ANY CLEARING OR EARTHWORK OPERATIONS. CONDITIONS THAT DEVELOP DURING CONSTRUCTION THAT WERE NOT FORESEEN DURING DESIGN STAGE; THAT REQUIRE ADDITIONAL OR MODIFIED TEMPORARY OR PERMANENT BMP'S SHALL BE APPROVED BY THE CITY ENGINEER AND REFLECTED ON THE REVISED SWP3.

SEDIMENT PONDS, SEDIMENT TRAPS, AND PERIMETER SEDIMENT CONTROLS, SHALL BE IMPLEMENTED AS THE FIRST STEP OF GRADING AND WITHIN 7 DAYS FROM THE START OF GRUBBING. THEY SHALL CONTINUE TO FUNCTION UNTIL DISTURBED AREAS ARE RE-ESTABLISHED WITH TEMPORARY VEGETATION. NO SEDIMENT CONTROLS SHALL BE PLACED IN A STREAM.

TRENCH DEWATERING OR GROUND WATER, WHICH CONTAINS SEDIMENT SHALL PASS THROUGH A SEDIMENT SETTLING POND OR EQUALLY EFFECTIVE SEDIMENT CONTROL DEVICE. ALTERNATIVES MAY INCLUDE DEWATERING INTO SUMP PIT, FILTER BAG OR EXISTING VEGETATED UPSLOPE AREA. SEDIMENT LADEN WATER SHALL NOT BE DISCHARGED TO STREAMS OR THE STORM SEWER SYSTEM.

THE SWP3, NOTES AND DETAILED DRAWINGS ARE INTENDED TO SERVE AS BASIC GUIDELINES. ALL EROSION CONTROL PRACTICES SHALL MEET THE STANDARDS AND SPECIFICATIONS OF THE ODNR RAINWATER AND LAND DEVELOPMENT MANUAL.

ADDITIONAL EROSION CONTROL BMP'S MAY BE MANDATED BY THE GOVERNING AGENCY AT ANY TIME DURING THIS PROJECT AS UNFORSEEN SITUATIONS MAY ARISE THAT WARRANT FURTHER EROSION AND SEDIMENT CONTROL PRACTICES.

CLEARING AND GRUBBING
LIMITS OF CLEARING AND GRADING SHALL BE CLEARLY MARKED ON THE SITE WITH SIGNAGE, FLAGGING AND/OR ORANGE CONSTRUCTION FENCING.

THE CONTRACTOR SHALL LIMIT THE SURFACE AREA OF ERODIBLE EARTH MATERIAL EXPOSED BY EXCAVATION, BORROW, AND FILL OPERATIONS AND PROVIDE IMMEDIATE PERMANENT OR TEMPORARY CONTROL MEASURES TO PREVENT CONTAMINATION OF ADJACENT STREAMS OR OTHER WATER COURSES, LAKES, PONDS, WETLANDS OR OTHER AREAS OF WATER IMPOUNDMENT.

CONSTRUCTION ENTRANCE
A STONED CONSTRUCTION ENTRANCE SHALL BE INSTALLED FOR ALL INGRESS & EGRESS TO THE SITE. THE MINIMUM DIMENSIONS OF THE DRIVE SHALL BE 20 FT. WIDE AND 50 FT. LONG. THE STONE SHALL BE 6 INCHES DEEP WITH AN UNDERLAIN GEOTEXTILE FABRIC. THE DRIVE SHALL BE INSTALLED PRIOR TO ANY CLEARING AND GRUBBING. SEDIMENTS SHALL BE REMOVED FROM THE ROADWAYS DAILY.

STABILIZATION

PERMANENT AND TEMPORARY STABILIZATION ARE DEFINED IN PART VII OF THE OEPA AUTHORIZATION FOR FOR STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
OHIO EPA PERMIT NO. OHOOOOD3 EFFECTIVE DATE 4/21/08 – EXPIRATION DATE 4/20/13 DISTURBED AREAS MUST BE STABILIZED AS SPECIFIED IN THE FOLLOWING TABLES BELOW:

TABLE 1: PERMANENT STABILIZATION

AREA REQUIRING PERMANENT STABILIZATION	TIME FRAME TO APPLY EROSION CONTROL
ANY AREA THAT WILL LIE DORMANT FOR ONE YEAR OR MORE	WITHIN SEVEN DAYS OF THE MOST RECENT DISTURBANCE
ANY AREA WITHIN 50 FT. OF A STREAM AND AT FINAL GRADE	WITHIN TWO DAYS OF REACHING FINAL GRADE
ANY OTHER AREAS AT FINAL GRADE	WITHIN SEVEN DAYS OF REACHING FINAL GRADE WITHIN THAT AREA

TEMPORARY SEEDING
SEEDING AREAS SHALL BE INSPECTED AND WHERE THE SEED HAS NOT PRODUCED 80% COVER SHALL BE RESEEDED AS NECESSARY BY THE CONTRACTOR. AREAS SHALL BE STABILIZED WITH STRAW MULCH WHEN CONDITIONS PROHIBIT SEEDING.

STRAW MULCHING SHALL BE APPLIED AT A RATE 2-3 STANDARD 45 LB. BALES PER 1000 SQ.FT. OF DISTURBED AREA OR 2 TONS PER ACRE. ALL HYDROSEEDING MUST BE STRAW MULCHED ACCORDING TO THE ABOVE SPECIFICATIONS UNLESS IT IS WATERED WEEKLY.

ALL DETENTION PONDS, RETENTION PONDS, WATER QUALITY STRUCTURES, SEDIMENT PONDS, SEDIMENT TRAPS, EARTHEN DIVERSIONS OR EMBANKMENTS SHALL BE SEEDED AND STRAW MULCHED WITHIN 7 DAYS OF COMPLETED CONSTRUCTION.

TABLE 2: TEMPORARY STABILIZATION

AREA REQUIRING TEMPORARY STABILIZATION	TIME FRAME TO APPLY EROSION CONTROL
ANY DISTURBED AREAS WITHIN 50 FT. OF A STREAM AND NOT AT FINAL GRADE	WITHIN TWO DAYS OF THE MOST RECENT DISTURBANCE IF THE AREA WILL REMAIN IDLE FOR MORE THAN 14 DAYS
FOR ALL CONSTRUCTION ACTIVITIES, ANY DISTURBED AREAS THAT WILL BE DORMANT FOR MORE THAN 21 DAYS BUT LESS THAN ONE YEAR, AND NOT WITHIN 50 FT. OF STREAM	WITHIN SEVEN DAYS OF THE MOST RECENT DISTURBANCE WITHIN THE AREA FOR RESIDENTIAL SUBDIVISIONS, DISTURBED AREAS MUST BE STABILIZED AT LEAST SEVEN DAYS PRIOR TO TRANSFER OF PERMIT COVERAGE FOR THE INDIVIDUAL LOT(S)
DISTURBED AREAS THAT WILL BE IDLE OVER WINTER	PRIOR TO ONSET OF WINTER WEATHER (NOV.1) STRAW MULCH 2 TO 3 BALES PER 1000 SQ.FT. AND OR 2 TONS PER ACRE.

PERMANENT STABILIZATION OF CONVEYANCE CHANNELS
OPERATORS SHALL UNDERTAKE SPECIAL MEASURES TO STABILIZE CHANNELS AND OUTFALLS AND PREVENT EROSIVE FLOWS. MEASURES MAY INCLUDE SEEDING, DORMANT SEEDING (AS DEFINED IN THE LATEST EDITION OF "ODNR RAINWATER AND LAND DEVELOPMENT MANUAL"), MULCHING, EROSION CONTROL MATTING, SODDING, RIPRAP NATURAL CHANNEL DESIGN WITH BIO ENGINEERING TECHNIQUES OR ROCK CHECK DAMS.

SOIL TRANSPORT ONTO PUBLIC ROADS
WHERE SOIL IS TRANSPORTED ONTO PUBLIC ROAD SURFACES, THE ROADS SHALL BE CLEANED THOROUGHLY BY EITHER SWEEPING OR SCRAPING AT THE END OF EACH WORK DAY OR MORE FREQUENTLY, IN ORDER TO ENSURE PUBLIC SAFETY. STREET WASHING SHALL NOT BE PERMITTED.

ERODIBLE MATERIAL RAMPS IN STREETS TO ENABLE EQUIPMENT TO CROSS CURBS SHALL BE PROPERLY REMOVED IMMEDIATELY AFTER USE.

SILT FENCE & DIVERSIONS
SHEET FLOW RUNOFF FROM DENUDED AREAS SHALL BE INTERCEPTED BY SILT FENCE OR DIVERSIONS TO PROTECT ADJACENT PROPERTIES AND WATER RESOURCES FROM SEDIMENT TRANSPORTED VIA SHEET FLOW. WHERE INTENDED TO PROVIDE SEDIMENT CONTROL, SILT FENCES SHALL BE PLACED ON A LEVEL CONTOUR. THE EPA PERMIT No. OHOOOOD03 DOES NOT PRECLUDE THE USE OF OTHER SEDIMENT BARRIERS DESIGNED TO CONTROL SHEET FLOW RUNOFF. SILT FENCE IS NOT PERMITTED TO BE USED FOR CONTROLLING CONCENTRATED SURFACEWATER FLOW (ONLY SHEET FLOW). STORMWATER DIVERSION PRACTICES SHALL BE USED TO KEEP RUNOFF AWAY FROM DISTURBED AREAS AND STEEP SLOPES WHERE PRACTICAL. SUCH DEVICES, WHICH INCLUDE SWALES, DIKES OR BERMS, MAY RECEIVE FROM AREAS UP TO 10 ACRES.

INLET PROTECTION
INLET PROTECTION IS MANDATORY.

NON-SEDIMENT POLLUTANTS CONTROLS
NO SOLID (OTHER THAN SEDIMENT) OR LIQUID WASTE, INCLUDING BUILDING MATERIALS, SHALL BE DISCHARGED IN STORMWATER RUNOFF. ALL NECESSARY BMP'S MUST BE IMPLEMENTED TO PREVENT THE DISCHARGE OF NON-SEDIMENT POLLUTANTS TO THE DRAINAGE SYSTEM OF THE SITE OR SURFACE WATERS OF THE STATE. UNDER NO CIRCUMSTANCE SHALL CONCRETE TRUCKS WASH OUT DIRECTLY INTO A DRAINAGE CHANNEL, STORM SEWER OR SURFACE WATERS OF THE STATE. NO EXPOSURE OF STORMWATER TO WASTE MATERIALS IS RECOMMENDED.

TRENCH AND GROUND WATER CONTROL
THERE SHALL BE NO TURBID DISCHARGES TO SURFACE WATERS OF THE STATE RESULTING FROM DEWATERING ACTIVITIES. IF TRENCH OR GROUND WATERS CONTAIN SEDIMENT, IT MUST PASS THROUGH A SEDIMENT SETTLING POND OR OTHER EQUALLY EFFECTIVE SEDIMENT CONTROL DEVICE, PRIOR TO BEING DISCHARGED FROM THE CONSTRUCTION SITE. ALTERNATIVELY, SEDIMENT MAY BE REMOVED BY SETTLING IN PLACE OR DEWATERING INTO A SUMP PIT, FILTER BAG OR COMPARABLE PRACTICE. GROUND WATER DEWATERING WHICH DOES NOT CONTAIN SEDIMENT OR OTHER POLLUTANTS ARE NOT REQUIRED TO BE TREATED PRIOR TO DISCHARGE, HOWEVER, CARE MUST BE TAKEN WHEN DISCHARGING GROUND WATER TO ENSURE THAT IT DOES NOT BECOME POLLUTANT-LADEN BY TRAVERSING OVER DISTURBED SOILS OR OTHER POLLUTANT SOURCES.

MAINTENANCE
ALL TEMPORARY AND PERMANENT CONTROL PRACTICES SHALL BE MAINTAINED AND REPAIRED AS NEEDED TO ENSURE CONTINUED PERFORMANCE OF THEIR INTENDED FUNCTION. ALL SEDIMENT CONTROL PRACTICES MUST BE MAINTAINED IN A FUNCTIONAL CONDITION UNTIL ALL UP SLOPE AREAS THEY CONTROL ARE PERMANENTLY STABILIZED. THE CONTRACTOR SHALL COMPLY WITH THE MAINTENANCE SCHEDULE INCLUDED IN THE APPROVED PLANS FOR THE PROPOSED EROSION CONTROLS. A WRITTEN DOCUMENT CONTAINING THE SIGNATURES OF ALL CONTRACTORS AND SUB-CONTRACTORS INVOLVED IN THE IMPLEMENTATION OF THE BMPS MUST BE MAINTAINED AS PROOF ACKNOWLEDGING THAT THEY REVIEWED AND UNDERSTAND THE CONDITIONS AND RESPONSIBILITIES OF THE SWP3.

INSPECTION
ALL STORMWATER CONTROLS ON THE SITE ARE INSPECTED AT LEAST ONCE EVERY SEVEN CALANDAR DAYS AND WITHIN 24 HOURS AFTER ANY STORM EVENT GREATER THAN ONE-HALF INCH OF RAIN PER 24 HOUR PERIOD. A WRITTEN RECORD DOCUMENTATING THE RESULTS OF THESE INSPECTIONS MUST BE CREATED AND MAINTAINED WITH THE SWP3. DISTURBED AREAS AND AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION SHALL BE INSPECTED FOR EVIDENCE OF OR THE POTENTIAL FOR, POLLUTANTS ENTERING THE EROSION AND SEDIMENT CONTROL MEASURES IDENTIFIED IN THE SWP3 SHALL BE OBSERVED TO ENSURE THAT THOSE ARE OPERATING CORRECTLY. DISCHARGE LOCATIONS SHALL BE INSPECTED TO ASCERTAIN WHETHER EROSION AND SEDIMENT CONTROL MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT IMPACTS TO THE RECEIVING WATERS. LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE SHALL BE INSPECTED FOR EVIDENCE OF OFF-SITE VEHICLE TRACKING.

WASTE DISPOSAL
CONTAINERS (e.g., DUMPSTERS, DRUMS) SHALL BE AVAILABLE FOR DISPOSAL OF DEBRIS, TRASH, HAZARDOUS OR PETROLEUM WASTES. ALL CONTAINERS MUST BE COVERED AND LEAK-PROOF. ALL WASTE MATERIAL SHALL BE DISPOSED OF AT FACILITIES APPROVED FOR THE PERTINENT MATERIAL.

CLEAN HARD FILL
BRICKS, HARDENING CONCRETE, AND SOIL WASTE SHALL BE FREE FROM CONTAMINATION WHICH MAY LEACH CONSTITUENTS TO WATERS OF THE STATE. CLEAN CONSTRUCTION WASTES THAT WILL BE DISPOSED INTO THE PROPERTY, SHALL BE SUBJECT TO ANY LOCAL PROHIBITIONS FROM THIS TYPE OF DISPOSAL.

CONSTRUCTION & DEMOLITION DEBRIS
ALL CONSTRUCTION & DEMOLITION DEBRIS (C&DD) WASTE SHALL BE DISPOSED OF IN AN OHIO EPA APPROVED C&DD LANDFILL AS REQUIRED BY OHIO REVISED CODE (ORC) 3714. CONSTRUCTION DEBRIS MAY BE DISPOSED OF ON-SITE, BUT DEMOLITION DEBRIS MUST BE DISPOSED IN A OHIO EPA APPROVED LANDFILL. ALSO, MATERIALS WHICH CONTAIN ASBESTOS MUST COMPLY WITH AIR POLLUTION REGULATIONS (SEE OHIO ADMINISTRATIVE CODE (OAC) 3745-20).

CONSTRUCTION CHEMICAL COMPOUNDS
AREA SHALL BE DESIGNATED FOR MIXING OR STORAGE OF COMPOUNDS SUCH AS FERTILIZERS, LIME ASPHALT, OR CONCRETE, THESE DESIGNATED AREAS SHALL BE LOCATED AWAY FROM WATERCOURSES, DRAINAGE DITCHES, FIELD DRAINS, OR OTHER STORMWATER DRAINAGE AREA.

EQUIPMENT FUELING & MAINTENANCE
EQUIPMENT FUELING & MAINTENANCE SHALL BE IN DESIGNATED AREAS ONLY.

A SPILL PREVENTION CONTROL AND COUNTERMEASURES
A SPILL PREVENTION CONTROL AND COUNTERMEASURES (SPCC) PLAN MUST BE DEVELOPED FOR SITES WITH ONE ABOVE-GROUND STORAGE TANK OF 880 GALLONS OR MORE, TOTAL ABOVE-GROUND STORAGE OF 1,330 GALLONS, OR BELOW-GROUND STORAGE OF 4,200 GALLONS OF FUEL.

CONCRETE WASH WATER
ALL DESIGNATED CONCRETE WASHOUT AREAS SHALL BE LOCATED AWAY FROM WATERCOURSES, DRAINAGE DITCHES, FIELD DRAINS, OR OTHER STORMWATER DRAINAGE AREAS.

CONTAMINATED SOILS
ALL CONTAMINATED SOIL MUST BE TREATED AND/OR DISPOSED IN OHIO EPA APPROVED SOLID WASTE MANAGEMENT FACILITIES OR HAZARDOUS WASTE TREATMENT, STORAGE OR DISPOSAL FACILITIES (TSDFs).

SPILL REPORTING REQUIREMENTS
THE CONTRACTOR SHALL CONTACT THE OHIO EPA AT 800-282-9378 AND THE LOCAL FIRE DEPARTMENT IN THE EVENT OF A PETROLEUM SPILL (>25 GALLONS) OR THE PRESENCE OF SHEEN.

OPEN BURNING
OPEN BURNING IS NOT PERMITTED.

DUST CONTROLS/SUPPRESSANTS
USED OIL MAY NOT BE USED AS A DUST SUPPRESSANT. NO DUST SUPPRESSANT SHALL BE APPLIED NEAR CATCH BASINS, STORM SEWERS OR OTHER DRAINAGE WAYS.

STREAM CROSSINGS
STREAM CROSSINGS SHALL BE CONSTRUCTED ENTIRELY OF STONE, ROCK, OR CLEAN RECYCLED CONCRETE. SOIL OR EARTHEN MATERIAL MAY NOT BE USED. A 20 FT. STONE APRON ON EITHER SIDE OF THE STREAM SHALL BE CONSTRUCTED TO PREVENT LOCALIZED SEDIMENTATION. THE CHANNELBED AND BANKS SHALL BE RESTORED, AND ALL DISTURBED AREAS OF THE BANK WITHIN 50 FT. OF THE STREAM SHALL BE STABILIZED WITH SEED AND STRAW MULCH WITHIN 2 DAYS OF THE DISTURBANCE.

PERMITS

THIS SITE IS COVERED UNDER OHIO EPA CONSTRUCTION GENERAL PERMIT # 3GC14764*AG

THIS SITE IS COVERED UNDER OPEA / ARMY 401 /404 PERMIT # LRB-2020-01322

STRUCTURAL BMP'S
PERMANENT BMP'S FOR POST CONSTRUCTION TREATMENT OF STORMWATER (CONVERSION OF SEDIMENT LAND TO STORMWATER POND) SHALL NOT BE INSTALLED UNTIL 80% OF THE DISTURBED AREA IS STABILIZED.

SEEDING AND MULCHING
SEDIMENT CONTROL SHALL BE ACCOMPLISHED BY SEEDING AND MULCHING IMMEDIATELY UPON COMPLETION OF EXCAVATION OR FILL AND FINISHED GRADING IN ACCORDANCE WITH ITEM 659 OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS OR AS DIRECTED BY THE ENGINEER. THE FOLLOWING PRO-MIXTURE SHALL BE USED FOR SEEDING: S-21 CERTIFIED KENTUCKY BLUE GRASS – 35% PENNLAWN FESCUE – 25% MANHATTEN II RYEGRASS – 40% FERTILIZER – 10#/1000 S.F. (12-12-12) MULCH – STRAW – 2 TONS/ACRE RESTORATION OF ALL DISTURBED AREAS SHALL IMMEDIATELY FOLLOW EXCAVATION AND GRADING OPERATIONS. DELAY IN RESTORATION SHALL NECESSITATE TEMPORARY EROSION CONTROL MEASURES APPROVED BY THE ENGINEER AND AT THE CONTRACTOR'S COST.

RIPARIAN BUFFERS

THE RIPARIAN BUFFER (SETBACK) FOR ALL MAJOR AND MINOR DITCHES SHALL BE MARKED IN THE FIELD WITH ORANGE CONSTRUCTION FENCING BY THE CONSTRUCTION SITE OPERATOR PRIOR TO ANY EARTH DISTURBING ACTIVITIES.

ENFORCEMENT

ALL DEVELOPMENT SITES ARE SUBJECT TO INSPECTIONS BY THE CITY OF NORTH RIDGEVILLE AUTHORIZED AGENT(S) UNDER THE DIRECTION OF THE A LICENSED PROFESSIONAL ENGINEER TO ENSURE COMPLIANCE WITH THE APPROVED SITE DEVELOPMENT PLAN OR SWM PLAN.

IF IT IS FOUND THAT THE OPERATIONS ARE BEING CONDUCTED IN VIOLATION OF THE APPROVED SITE DEVELOPMENT PLAN AND SWM PLAN, A STOP-WORK ORDER MY BE ISSUED BY THE CITY OF NORTH RIDGEVILLE UNTIL THE IDENTIFIED VIOLATIONS CEASE.

AFTER ISSUANCE OF A STOP-WORK ORDER PROVIDED IN THE PARAGRAPH ABOVE, BUT BEFORE THE IMPOSITION OF ANY FINES, THE APPLICANT SHALL HAVE TWO (2) BUSINESS DAYS TO REQUEST A MEETING WITH THE CITY LAW DIRECTOR AND THE CITY ENGINEER TO SHOW CAUSE WHY THE WORK SHOULD NOT BE STOPPED.

FOLLOWING THE ISSUANCE OF A STOP-WORK ORDER, THE CITY OF NORTH RIDGEVILLE SHALL DETERMINE IF AND WHEN THE DEVELOPMENT MAY PROCEED. ANY DETERMINATION BY THE CITY OF NORTH RIDGEVILLE PURSUANT TO THIS SECTION IS A FINAL ORDER FOR THE PURPOSE OF JUDICIAL REVIEW.

VIOLATIONS

THE CITY OF NORTH RIDGEVILLE SHALL NOTIFY THE STORM WATER PERMITTEE OF ANY VIOLATIONS OBSERVED IN WRITING. SAID NOTICE SHALL INDICATE THE EXACT NATURE OF THE VIOLATIONS AND OTHER SPECIFIC CORRECTIONS WHICH ARE REQUIRED.

THE PERMITTEE SHALL COMPLY WITH THE TIMELINE FOR CORRECTIONS SPECIFIED BELOW. TIMELINE EXTENSIONS FOR ADVERSE WEATHER CONDITIONS MAY BE GRANTED UPON APPROVAL OF THE CITY ENGINEER.

NATURE OF VIOLATION:	NUMBER OF DAYS FROM INSPECTION TO CORRECT FUNCTIONING OF CONTROL PRACTICE:
SILT FENCE	WITHIN THREE (3) DAYS
OUTLET CONTROL STRUCTURE	WITHIN THREE (3) DAYS
TEMPORARY OR PERMANENT STABILIZATION WITHIN 50' OF DRAINAGE CHANNELS	WITHIN THREE (3) DAYS
TEMPORARY OR PERMANENT STABILIZATION FOR ALL OTHER DISTURBED AREAS	WITHIN THREE (3) DAYS
STABILIZED CONSTRUCTION ENTRANCE	WITHIN THREE (3) DAYS
PUMPING SEDIMENT-LADEN DISCHARGE INTO DRAINAGE CHANNEL	IMMEDIATELY UPON NOTICE
SEDIMENT SETTLING POND	WITHIN TEN (10) DAYS
ANY OTHER CONTROL PRACTICE NOT ADDRESSED IN THIS TABLE	WITHIN THREE (3) DAYS

PENALTIES SUBSEQUENT TO ISSUANCE OF STOP-WORK ORDER

SUBSEQUENT TO ISSUANCE OF A STOP-WORK ORDER, PENALTIES MAY BE IMPOSED ACCORDING TO THE CITY OF NORTH RIDGEVILLE CODIFIED ORDINANCE 1056.08(G)(1)(A), 1056.08(G)(1)(B) OR 1056.08(G)(1)(C).

REV. 11/22/16 OCTOBER 1, 2008

REVISION	DATE:	BY:	DESCRIPTION:
	11/17/2023	CLH	ISSUE TO CITY FOR ENGINEERING REVIEW
	12/19/2023	CLH	ISSUE TO OEPA FOR REVIEW
	02/27/2024	CLH	REVISED CITY COMMENTS
	04/23/2024	CLH	REVISED PER CITY COMMENTS
	05/24/2024	CLH	REVISED PER CITY COMMENTS

DRAWN BY: SJM
CHECKED BY: CLH

BRAMHALL
ENGINEERING AND SURVEYING COMPANY
801 MOORE ROAD AVON, OHIO 44011
(440) 934 - 7878 (440) 934 - 7879 FAX

PREPARED FOR:
VALORE PROPERTIES, INC.
23550 CENTER RIDGE ROAD
WESTLAKE, OH 44145

HAMPTON PLACE SUBDIVISION - PHASE 8
SWP3 NOTES & DETAILS
CITY OF NORTH RIDGEVILLE, COUNTY OF LORAIN, STATE OF OHIO

SHEET 47 OF 52
JOB NO. 20-5445-8

J:\2054\5-8 Hampton Place PH-8\DRAWINGS\Improvement Plans\(47-51) SWP3 Notes & Details.dwg, Plotted: May 28, 2024 - 8:37am

SWP3 Amendment Log

Project Name:

Amendment No.	Description of the Amendment	Date of Amendment	Amendment Prepared By

SWP3 Corrective Action Log

Project Name:

Inspection Date	Inspector Name	Description of Correctiove Action Needed (From Inspection Report)	Corrective Action Taken	Date Action Taken

SWP3 Grading and Stabilization Activities Log

Project Name:

Date Grading Activity Initiated	Description of Grading Activity	Date Grading Activity Ceased (Indicate Temporary or Permanent)	Date When Stabilization Measures are Initiated	Description of Stabilization Measure and Location

SIGNATURE LIST

PROIR TO STARTING CONSTRUCTION THE SWP3 SHALL BE SIGNED BY ALL CONTRACTORS AND SUBCONTRACTORS SHALL BE SUBMITTED TO THE CITY OF NORTH RIDGEVILLE ENGINEERING DEPARTMENT.

THE UNDERSIGNED HAS BEEN INFORMED AND UNDERSTANDS THEIR ROLE AND RESPONSIBILITY IN COMPLYING WITH THIS STORMWATER POLLUTION PREVENTION PLAN:

SIGNATURE	PRINTED NAME	TITLE	COMPANY	DATE

ACCEPTABLE EROSION CONTROL TIMETABLE

	J	F	M	A	M	J	J	A	S	O	N	D
TEMP. SEEDING				X	X	X	X	X	X	X		
PERM. SEEDING				X	X	X	X	X	X			
LANDSCAPING			X	X	X	X			X	X	X	
MULCHING	X	X	X	X	X	X	X	X	X	X	X	X
MAINTENANCE	X	X	X	X	X	X	X	X	X	X	X	X

2024/2025 SCHEDULE OF MAJOR CONSTRUCTION OPERATIONS

YEAR	2024							
MONTH	J	J	A	S	O	N	D	J
TEMP. EROSION CONTROL	X	X	X	X	X	X	X	X
CLEARING AND GRUBBING	X	X						
ROUGH GRADING		X	X	X				
UTILITIES			X	X	X			
FINE GRADING				X	X	X		
PAVING					X	X	X	
TOPSOIL & SEEDING							X	X
LANDSCAPE							X	X
TEMP. EROSION CONTROL MAINTENANCE	X	X	X	X	X	X	X	X

Detention Basin Maintenance Tasks and Schedule

Tasks	Basin Side-Slopes	Basin Bottom	Basin Inlets	Basin Outlet	Catch Basin Inlets	Catch Basin Sumps	Storm Sewer System	Schedule
Inspect for sediment accumulation		o	o	o	o	o	o	Annually
Remove sediment accumulation		o	o	o	o	o	o	Every 5-10 years as needed
Inspect for debris (dead vegetation and trash)	o	o	o	o	o	o	o	Early spring, fall and after major storms
Clean debris	o	o	o	o	o	o	o	As needed
Inspect for erosion on banks and bottom	o	o	o	o				Early spring, fall and after major storms
Re-establish permanent vegetation on eroded slopes	o	o						As needed
Rake out dead vegetation			o	o				Annually – early spring
Replace stone rip-rap	o	o	o	o				Every 3-5 years as needed
Mowing	o	o						0 to 2 times per year
Inspect structural elements during rainfall event			o	o			o	Annually

J:\20\5445-8 Hampton Place PH-8\DRAWINGS\Improvement Plans\(47-51) SWP3 Notes & Details.dwg, Plotted: May 28, 2024 - 8:38am

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PREPARED FOR:

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WESTLAKE, OH 44145

HAMPTON PLACE SUBDIVISION - PHASE 8
SWP3 NOTES & DETAILS

CITY OF NORTH RIDGEVILLE, COUNTY OF LORAIN, STATE OF OHIO

SHEET 48 OF 52

JOB NO. 20-5445-8

Specifications
for

De-Watering

1. A de-watering plan shall be developed prior to the commencement of any pumping activities.
2. The de-watering plan shall include all pumps and related equipment necessary for the dewatering activities and designate areas for placement of practices. Outlets where practices shall be protected from scour either by riprap protection, fabric liner, or other acceptable method of outlet protection.
3. Water that is not discharged into a settling/treatment basin but directly into waters of the state shall be monitored hourly. Discharged water shall be within +/- 5° F of the receiving waters.
4. Settling basins shall not be greater than four (4) feet in depth. The basin shall be constructed for sediment storage as outlined in Chapter 6, SEDIMENT BASIN OR SEDIMENT TRAP. The inlet and outlet for the basin shall be located at the furthest points of the storage. A floating outlet shall be used to ensure that settled solids do not re-suspend during the discharge process. The settling basin shall be cleaned out when the storage has been reduced by 50% of its original capacity.
5. All necessary National, State and Local permits shall be secured prior to discharging into waters of the state

INFORMATION OBTAINED FROM THE 2006 EDITION OF THE STATE OF OHIO'S "RAINWATER AND LAND DEVELOPMENT MANUAL".

REV No.	DATE	BY	DESCRIPTION

CITY OF NORTH RIDGEVILLE, OHIO
DEPARTMENT OF ENGINEERING

DE-WATERING

CITY OF NORTH RIDGEVILLE, ENGINEER

SCALE: NOT TO SCALE | DATE: 10/01/08 | DRWN BY: JAB/TEB | SWP-15

Specifications
for

Topsoiling

Salvaging and Stockpiling

1. Determine the depth and suitability of topsoil at the site. (For help, contact your local SWCD office to obtain a county soil survey report).
2. Prior to stripping topsoil, install appropriate downslope erosion and sedimentation controls such as sediment traps and basins.
3. Remove the soil material no deeper than what the county soil survey describes as "surface soil" (ie. A or Ap horizon).
4. Construct stockpiles in accessible locations that do not interfere with natural drainage. Install appropriate sediment controls to trap sediment such as silt fence immediately adjacent to the stockpile or sediment traps or basins downstream of the stockpile. Stockpile side slopes shall not exceed a ratio of 2:1.
5. If topsoil is stored for more than 21days, it should be temporary seeded, or covered with a tarp.

Spreading the Topsoil

1. Prior to applying topsoil, the topsoil should be pulverized.
2. To ensure bonding, grade the subsoil and roughen the top 3-4 in. by disking.
3. Do not apply when site is wet, muddy, or frozen, because it makes spreading difficult, causes compaction problems, and inhibits bonding with subsoil.
4. Apply topsoil evenly to a depth of at least 4 inches and compact slightly to improve contact with subsoil.
5. After speading, grade and stabilize with seeding or appropriate vegetation.

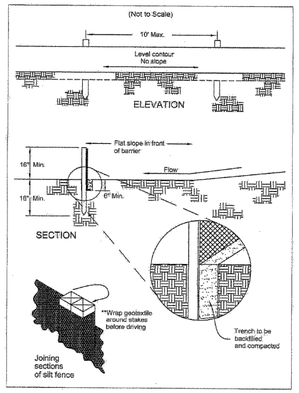
Specifications
for

Mulching

1. Mulch and other appropriate vegetative practices shall be applied to disturbed areas within 7 days of grading if the area is to remain dormant (undisturbed) for more than 21 days or on areas and portions of the site which can be brought to final grade.
2. Mulch shall consist of one of the following:
   - Straw - Straw shall be unrotted small grain straw applied at the rate of 2 tons/ac. or 90 lb./1,000 sq. ft. (two to three bales). The straw mulch shall be spread uniformly by hand or mechanically so the soil surface is covered. For uniform distribution of hand-spread mulch, divide area into approximately 1,000 sq.ft. sections and place two 45-lb. bales of straw in each section.
   - Hydroseeders - Wood cellulose fiber should be used at 2,000 lb./ac. or 46 lb./1,000 sq. ft.
   - Other - Acceptable mulches include mulch mattings and rolled erosion control products applied according to manufacturer's recommendations or wood mulch/chips applied at 10-20 tons/ac.
3. Mulch Anchoring - Mulch shall be anchored immediately to minimize loss by wind or runoff. The following are acceptable methods for anchoring mulch.
   - Mechanical - Use a disk, crimper, or similar type tool set straight to punch or anchor the mulch material into the soil. Straw mechanically anchored shall not be finely chopped but be left generally longer than 6 inches.
   - Mulch Nettings - Use according to the manufacturer's recommendations, following all placement and anchoring requirements. Use in areas of water concentration and steep slopes to hold mulch in place.
   - Synthetic Binders - For straw mulch, synthetic binders such as Acrylic DLR (Agri-Tac), DCA-70, Petroset, Terra Tack or equal may be used at rates recommended by the manufacturer. All applications of Sythetic Binders must be conducted in such a manner where there is no contact with waters of the state.
   - Wood Cellulose Fiber - Wood cellulose fiber may be used for anchoring straw. The fiber binder shall be applied at a net dry weight of 750 lb./acre. The wood cellulose fiber shall be mixed with water and the mixture shall contain a maximum of 50 lb./100 gal. of wood cellulose fiber.

Specifications
for

Silt Fence



INFORMATION OBTAINED FROM THE 2006 EDITION OF THE STATE OF OHIO'S "RAINWATER AND LAND DEVELOPMENT MANUAL".

Specifications
for

Silt Fence

1. Silt fence shall be constructed before upslope land disturbance begins.
2. All silt fence shall be placed as close to the contour as possible so that water will not concentrate at low points in the fence and so that small swales or depressions that may carry small concentrated flows to the silt fence are disrupted along its length.
3. Ends of the silt fences shall be brought upslope slightly so that water ponded by the silt fence will be prevented from flowing around the ends.
4. Silt fence shall be placed on the flattest area available.
5. Where possible, vegetation shall be preserved for 5 feet (or as much as possible) upslope from the silt fence. If vegetation is removed, it shall be reestablished within 7 days from the installation of the silt fence.
6. The height of the silt fence shall be a minimum of 16 inches above the original ground surface.
7. The silt fence shall be placed in an excavated or sliced trench cut a minimum of 8 inches deep. The trench shall be made with a trencher, cable laying machine, slicing machine, or other suitable device that will ensure an adequately uniform trench depth.
8. The silt fence shall be placed with the stakes on the downslope side of the geotextile. A minimum of 8 inches of geotextile must be below the ground surface. Excess material shall lay on the bottom of the 8-inch deep trench. The trench shall be backfilled and compacted on both sides of the fabric.
9. Seams between sections of silt fence shall be spliced together only at a support post with a minimum 6-in. overlap prior to driving into the ground, (see details).
10. Maintenance—Silt fence shall allow runoff to pass only as diffuse flow through the geotextile. If runoff overtops the silt fence, flows under the fabric or around the fence ends, or in any other way allows a concentrated flow discharge, one of the following shall be performed, as appropriate: 1) the layout of the silt fence shall be changed, 2) accumulated sediment shall be removed, or 3) other practices shall be installed.

   Sediment deposits shall be routinely removed when the deposit reaches approximately one-half of the height of the silt fence.

   Silt fences shall be inspected after each rainfall and at least daily during prolonged rainfall. The location of existing silt fence shall be reviewed daily to ensure its proper location and effectiveness. If damaged, the silt fence shall be repaired immediately.

Criteria for silt fence materials

1. Fence post – The length shall be a minimum of 32 inches. Wood posts will be 2-by-2-in. nominal dimensioned hardwood of sound quality. They shall be free of knots, splits and other visible imperfections, that will weaken the posts. The maximum spacing between posts shall be 10 ft. Posts shall be driven a minimum 16 inches into the ground, where possible. If not possible, the posts shall be adequately secured to prevent overturning of the fence due to sediment/water loading.
2. Silt fence fabric – See chart below.

Table 6.3.2 Minimum criteria for Silt Fence Fabric (ODOT, 2002).

FABRIC PROPERTIES	VALUES	TEST METHOD
Minimum Tensile Strength	120 lbs. (535 N)	ASTM D 4632
Maximum Elongation at 60 lbs	50%	ASTM D 4632
Minimum Puncture Strength	50 lbs (220 N)	ASTM D 4833
Minimum Tear Strength	40 lbs (180 N)	ASTM D 4533
Apparent Opening Size	≤ 0.84 mm	ASTM D 4751
Minimum Permittivity	1X10-2 sec.-1	ASTM D 4491
UV Exposure Strength Retention	70%	ASTM D 4355

REV No.	DATE	BY	DESCRIPTION

CITY OF NORTH RIDGEVILLE, OHIO
DEPARTMENT OF ENGINEERING

SILT FENCE

CITY OF NORTH RIDGEVILLE, ENGINEER

SCALE: NOT TO SCALE | DATE: 10/01/08 | DRWN BY: JAB/TEB | SWP-18

J:\2005445-8 Hampton Place PH-8\DRAWINGS\Improvement Plans\(47-51) SWP3 Notes & Details.dwg, Plotted: May 28, 2024 - 8:38am

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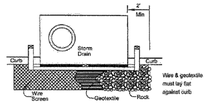
HAMPTON PLACE SUBDIVISION - PHASE 8
SWP3 NOTES & DETAILS
CITY OF NORTH RIDGEVILLE, COUNTY OF LORAIN, STATE OF OHIO

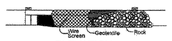
SHEET 49 OF 52
JOB NO. 20-5445-8

Specifications
for

Geotextile - Stone Inlet Protection

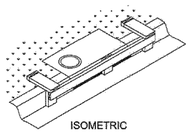


PLAN VIEW



ELEVATION

CROSS SECTION



ISOMETRIC

1. Inlet protection shall be constructed either before upslope land disturbance begins or before the inlet becomes functional.
2. The earth around the inlet shall be excavated completely to a depth at least 18 inches.
3. The wooden frame shall be constructed of 2-inch by 4-inch construction grade lumber. The 2-inch by 4-inch posts shall be driven one (1) ft. into the ground at four corners of the inlet and the top portion of 2-inch by 4-inch frame assembled using the overlap joint shown. The top of the frame shall be at least 6 inches below adjacent roads if ponded water will pose a safety hazard to traffic.
4. Wire mesh shall be of sufficient strength to support fabric with water fully impounded against it. It shall be stretched tightly around the frame and fastened securely to the frame.
5. Geotextile material shall have an equivalent opening size of 20-40 sieve and be resistant to sunlight. It shall be stretched tightly around the frame and fastened securely. It shall extend from the top of the frame to 18 inches below the inlet notch elevation. The geotextile shall overlap across one side of the inlet so the ends of the cloth are not fastened to the same post.
6. Backfill shall be placed around the inlet in compacted 6-inch layers until the earth is even with notch elevation on ends and top elevation on sides.
7. A compacted earth dike or check dam shall be constructed in the ditch line below the inlet if the inlet is not in a depression. The top of the dike shall be at least 6 inches higher than the top of the frame.

INFORMATION OBTAINED FROM THE 2006 EDITION OF THE STATE OF OHIO'S "RAINWATER AND LAND DEVELOPMENT MANUAL".

REV No.	DATE	BY	DESCRIPTION

CITY OF NORTH RIDGEVILLE, OHIO
DEPARTMENT OF ENGINEERING

GEOTEXTILE-STONE INLET PROTECTION

SCALE: NOT TO SCALE | DATE: 10/01/08 | DRWN BY: JAB/TEB | SWP-21

CITY OF NORTH RIDGEVILLE, ENGINEER

Specifications
for

Geotextile-Stone Inlet Protection for Curb Inlets

1. Inlet protection shall be constructed either before upslope land disturbance begins or before the inlet becomes functional.
2. Construct a wooden frame of 2-by-4-in. construction-grade lumber. The end spacers shall be a minimum of 1 ft. beyond both ends of the throat opening. The spacers shall be nailed to 2-by-4-in. stakes driven on the opposite side of the curb.
3. The wire mesh shall be of sufficient strength to support fabric and stone. It shall be a continuous piece with a minimum width of 30 in. and 4 ft. longer than the throat length of the inlet, 2 ft. on each side.
4. Geotextile cloth shall have an equivalent opening size (E-:;S) of 20-40 sieve and be resistant to sunlight. It shall be at least the same size as the wire mesh.
5. The wire mesh and geotextile cloth shall be formed to the concrete gutter and against the face of the curb on both sides of the inlet and securely fastened to the 2-by-4-in. frame.
6. Two-inch stone shall be placed over the wire mesh and geotextile in such a manner as to prevent water from entering the inlet under or around the geotextile cloth.
7. This type of protection must be inspected frequently and the stone and/or geotextile replaced when clogged with sediment.

NOTE:
NOT TO BE USED DURING SNOW PLOWING SEASON.

INFORMATION OBTAINED FROM THE 2006 EDITION OF THE STATE OF OHIO'S "RAINWATER AND LAND DEVELOPMENT MANUAL".

REV No.	DATE	BY	DESCRIPTION

CITY OF NORTH RIDGEVILLE, OHIO
DEPARTMENT OF ENGINEERING

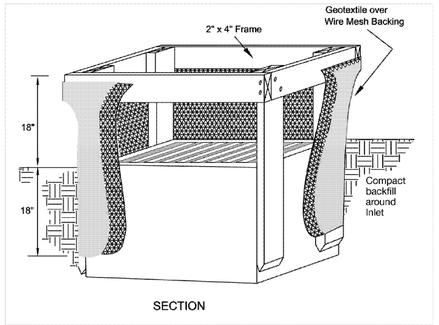
GEOTEXTILE-STONE INLET PROTECTION FOR CURB INLETS

SCALE: NOT TO SCALE | DATE: 10/01/08 | DRWN BY: JAB/TEB | SWP-22

CITY OF NORTH RIDGEVILLE, ENGINEER

Specifications
for

Geotextile Inlet Protection



SECTION

1. Inlet protection shall be constructed either before upslope land disturbance begins or before the inlet becomes functional.
2. The earth around the inlet shall be excavated completely to a depth at least 18 inches.
3. The wooden frame shall be constructed of 2-inch by 4-inch construction grade lumber. The 2-inch by 4-inch posts shall be driven one (1) ft. into the ground at four corners of the inlet and the top portion of 2-inch by 4-inch frame assembled using the overlap joint shown. The top of the frame shall be at least 6 inches below adjacent roads if ponded water will pose a safety hazard to traffic.
4. Wire mesh shall be of sufficient strength to support fabric with water fully impounded against it. It shall be stretched tightly around the frame and fastened securely to the frame.
5. Geotextile material shall have an equivalent opening size of 20-40 sieve and be resistant to sunlight. It shall be stretched tightly around the frame and fastened securely. It shall extend from the top of the frame to 18 inches below the inlet notch elevation. The geotextile shall overlap across one side of the inlet so the ends of the cloth are not fastened to the same post.
6. Backfill shall be placed around the inlet in compacted 6-inch layers until the earth is even with notch elevation on ends and top elevation on sides.
7. A compacted earth dike or check dam shall be constructed in the ditch line below the inlet if the inlet is not in a depression. The top of the dike shall be at least 6 inches higher than the top of the frame.

Specifications
for

Dust Control

1. Vegetative Cover and/mulch – Apply temporary or permanent seeding and mulch to areas that will remain idle for over 21 days. Saving existing trees and large shrubs will also reduce soil and air movement across disturbed areas. See Temporary Seeding; Permanent Seeding; Mulching Practices; and Tree and Natural Area Protection practices.
2. Watering – Spray site with water until the surface is wet before and during grading and repeat as needed, especially on haul roads and other heavy traffic routes. Watering shall be done at a rate that prevents dust but does not cause soil erosion. Wetting agents shall be utilized according to manufacturers instructions.
3. Spray-On Adhesives – Apply adhesive according to the following table or manufacturers' instructions.

Table 7.5.1: Adhesives for Dust Control

Adhesive	Water Dilution (Adhesive: Water)	Residue Type	Application Rate Gal./Ac.
Latex Emulsion	12.5:1	Fine	235
Resin in Water Acrylic Emulsion (No-traffic)	4:1	Fine	300
Acrylic Emulsion (No-traffic)	7:1	Coarse	465
Acrylic Emulsion (Traffic)	3.5:1	Coarse	350

4. Stone – Graded roadways and other suitable areas will be stabilized using crushed stone or coarse gravel as soon as practicable after reaching as interim or final grade. Crushed stone or coarse gravel can be used as a permanent cover to provide control of soil emissions.
5. Barriers – Existing windbreak vegetation shall be marked and preserved. Snow fencing or other suitable barrier may be placed perpendicular to prevailing air currents at intervals of about 15 times the barrier height to control air currents and blowing soil.
6. Calcium Chloride – This chemical may be applied by mechanical spreader as loose, dry granules or flakes at a rate that keeps the surface moist but not as high as to cause water pollution or plant damage. Application rates should be strictly in accordance with suppliers' specified rates.
7. Operation and Maintenance - When Temporary Dust Control measures are used, repetitive treatment should be applied as needed to accomplish control.

   Street Cleaning - Paved areas that have accumulated sediment from construction should be cleaned daily, or as needed, utilizing a street sweeper or bucket -type endloader or scraper.

INFORMATION OBTAINED FROM THE 2006 EDITION OF THE STATE OF OHIO'S "RAINWATER AND LAND DEVELOPMENT MANUAL".

REV No.	DATE	BY	DESCRIPTION

CITY OF NORTH RIDGEVILLE, OHIO
DEPARTMENT OF ENGINEERING

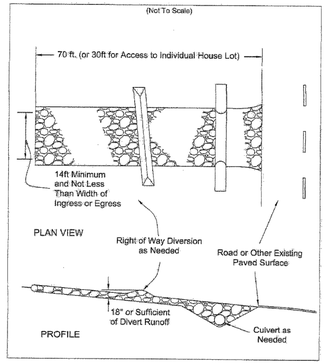
DUST CONTROL

SCALE: NOT TO SCALE | DATE: 10/01/08 | DRWN BY: JAB/TEB | SWP-29

CITY OF NORTH RIDGEVILLE, ENGINEER

Specifications
for

Construction Entrance



Specifications
for

Construction Entrance

1. Stone Size—ODOT # 2 (1.5-2.5 inch) stone shall be used, or recycled concrete equivalent.
2. Length—The Construction entrance shall be as long as required to stabilize high traffic areas but not less than 70 ft. (exception: apply 30 ft. minimum to single residence lots).
3. Thickness -The stone layer shall be at least 6 inches thick for light duty entrances or at least 10 inches for heavy duty use.
4. Width -The entrance shall be at least 14 feet wide, but not less than the full width at points where ingress or egress occurs.
5. Geotextile -A pietrovitile shall be laid over the entire area prior to placing stone. It shall be composed of strong rot-proof polymeric fibers and meet the following specifications:

Figure 7.4.1

Geotextile Specification for Construction Entrance	
Minimum Tensile Strength	200 lbs.
Minimum Puncture Strength	80 psi.
Minimum Tear Strength	50 lbs.
Minimum Burst Strength	320 psi.
Minimum Elongation	20%
Equivalent Opening Size	EOS < 0.6 mm.
Permittivity	1x10-3 cm/sec.

6. Timing—The construction entrance shall be installed as soon as is practicable before major grading activities.
7. Culvert -A pipe or culvert shall be constructed under the entrance if needed to prevent surface water from flowing across the entrance or to prevent runoff from being directed out onto paved surfaces.
8. Water Bar -A water bar shall be constructed as part of the construction entrance if needed to prevent surface runoff from flowing the length of the construction entrance and out onto paved surfaces.
9. Maintenance -Top dressing of additional stone shall be applied as conditions demand. Mud spilled, dropped, washed or tracked onto public roads, or any surface where runoff is not checked by sediment controls, shall be removed immediately. Removal shall be accomplished by scraping or sweeping.
10. Construction entrances shall not be relied upon to remove mud from vehicles and prevent off-site tracking. Vehicles that enter and leave the construction-site shall be restricted from muddy areas.
11. Removal—the entrance shall remain in place until the disturbed area is stabilized or replaced with a permanent roadway or entrance.

INFORMATION OBTAINED FROM THE 2006 EDITION OF THE STATE OF OHIO'S "RAINWATER AND LAND DEVELOPMENT MANUAL".

REV No.	DATE	BY	DESCRIPTION

CITY OF NORTH RIDGEVILLE, OHIO
DEPARTMENT OF ENGINEERING

CONSTRUCTION ENTRANCE

SCALE: NOT TO SCALE | DATE: 10/01/08 | DRWN BY: JAB/TEB | SWP-27

CITY OF NORTH RIDGEVILLE, ENGINEER

Concrete Washout Areas

Installation:

1. Concrete wash water shall not be allowed to flow to streams, ditches, storm drains, or any other water conveyance and washout pits shall be situated a minimum of fifty (50) feet from them.
2. Field tile or other subsurface drainage structures within 10 ft. of the sump shall be cut and plugged.
3. Ensure a stable path is provided for concrete trucks to reach the washout area.
4. A highly visible sign that reads "Concrete Washout Area" shall be erected adjacent to the washout pit.
5. Surface runoff generated from upslope areas shall be diverted away from below-grade washout pits so as not to flow into them.
6. A single centralized washout area may be utilized for multiple sublots.

Maintenance:

7. The washout pit must be inspected frequently to ensure the liner is intact.
8. Once 75% of the original volume of the washout pit is filled or if the liner is torn, the material must be removed and properly disposed of once it is completely hardened. Once the hardened concrete is removed, the liner must be replaced (if torn). A new pit must be constructed if the original structure is no longer suitable.

Removal:

9. Once the washout pit is no longer needed, ensure all washout material has completely hardened, then remove and properly dispose of all materials. If straw bales were used, they can be spread as mulch.
10. Prefabricated containers specifically designed for concrete washout collection may be used subject to prior approval by the Community Engineer. Follow the manufacturer's suggestions for installation, maintenance and removal procedures.

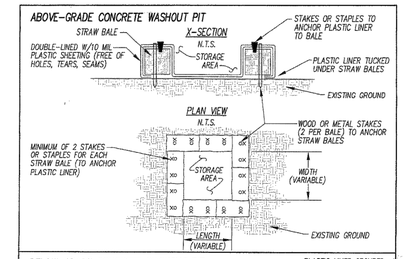
Sizing of Concrete Washout Pits

Below-grade (3-ft depth)		
# of concrete trucks expected to be washed out on site*	Width (ft)	Length (ft)
2-3	3	3
4-5	4	4
6-7	5	5
8-10	6	6
11-14	7	7

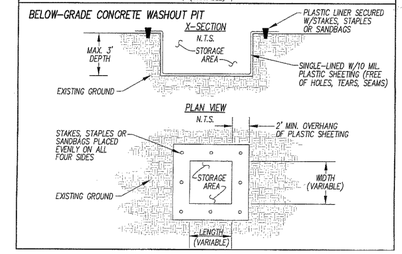
Above-grade (2-ft depth)		
# of concrete trucks expected to be washed out on site*	Width (ft)	Length (ft)
2	3	3
3-4	4	4
5-6	5	5
7-8	6	6
9-11	7	7
12-15	8	8

*For small projects using a maximum of only one truckload of concrete or utilizing on-site mixing, rinsing of equipment may take place on the lot without a pit, provided it can be done a minimum of fifty (50) feet away from any water conveyances.

ABOVE-GRADE CONCRETE WASHOUT PIT



BELOW-GRADE CONCRETE WASHOUT PIT



REV No.	DATE	BY	DESCRIPTION

CITY OF NORTH RIDGEVILLE, OHIO
DEPARTMENT OF ENGINEERING

CONCRETE WASHOUT

SCALE: NOT TO SCALE | DATE: 10/01/08 | DRWN BY: JAB/TEB | SWP-33

CITY OF NORTH RIDGEVILLE, ENGINEER

REVISION	DATE:	BY:	DESCRIPTION:
	11/17/2023	CLH	ISSUE TO CITY FOR ENGINEERING REVIEW
	12/19/2023	CLH	ISSUE TO OEPA FOR REVIEW
	02/27/2024	CLH	REVISED CITY COMMENTS
	04/23/2024	CLH	REVISED PER CITY COMMENTS
	05/24/2024	CLH	REVISED PER CITY COMMENTS

DRAWN BY: SJM

CHECKED BY: CLH

BRAMHALL
ENGINEERING AND SURVEYING COMPANY
801 MOORE ROAD AVON, OHIO 44011
(440) 934 - 7878 (440) 934 - 7879 FAX

PREPARED FOR:

VALORE PROPERTIES, INC.
23550 CENTER RIDGE ROAD
WESTLAKE, OH 44145

HAMPTON PLACE SUBDIVISION - PHASE 8
SWP3 NOTES & DETAILS
CITY OF NORTH RIDGEVILLE, COUNTY OF LORAIN, STATE OF OHIO

SHEET 50 OF 52

JOB NO. 20-5445-8

I:\20544S-8 Hampton Place PH-8\DRAWINGS\Improvement Plans\(47-51) SWP3 Notes & Details.dwg, Plotted: May 29, 2024 - 8:38am

Specifications
for

Small Construction Site Controls

1. Preexisting vegetation shall be retained on idle portions of the building lot for as long as construction operations allow. Clearing shall be done so only active working areas are bare.

2. Temporary seed and/or mulch shall be applied to areas, such as stockpiles and rough graded areas, that are bare and not actively being worked. This shall apply to areas that will not be reworked for 21 days or more.

3. Stockpiles created from basement excavation and grading shall be situated away from streets, swales, or other waterways and shall be seeded and/or mulched immediately.

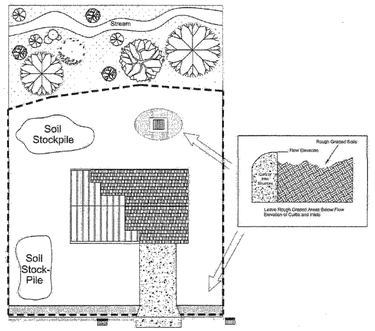
4. Silt fence or other sediment barriers shall control sheet flow runoff from the building lot. These shall not be constructed in channels or areas of concentrated flow. Other sediment controls such as sediment traps and inlet protection shall also be used as needed to control sediment runoff. Sediment control practices shall be inspected weekly after storm events, and maintained in good working condition.

5. Construction vehicle access shall be limited to one route, to the greatest extent practical. This access shall be gravel or crushed rock underlain with geotextile.

6. Mud tracked onto streets or sediment settled around curb inlet protection shall be removed daily or as needed to prevent it from accumulating. It shall be removed by shoveling and scraping and shall NOT be washed off paved surfaces or into storm drains. Sediment removed shall be placed where it will not be subject to erosion or concentrated runoff.

Specifications
for

Small Construction Site Controls



PLAN VIEW

- Temporary seeding and/or mulch applied to rough graded areas
- Construction Entrance gravel
- Rough grade areas to allow settling below grade elevation
- Storm Drain w/inlet protection
- Storm Drain without inlet protection
- Yard Drain w/ inlet protection
- Silt Fence
- Curb

INFORMATION OBTAINED FROM THE 2006 EDITION OF THE STATE OF OHIO'S "RAINWATER AND LAND DEVELOPMENT MANUAL".

REV No.	DATE	BY	DESCRIPTION

CITY OF NORTH RIDGEVILLE, OHIO
DEPARTMENT OF ENGINEERING

SMALL CONSTRUCTION SITE CONTROLS

SCALE: NOT TO SCALE
DATE: 10/01/08 | DRWN BY: JAB/TEB

SWP-32

CITY OF NORTH RIDGEVILLE, ENGINEER

J:\2054\5-8 Hampton Place PH-8\DRAWINGS\Improvement Plans\(47-51) SWP3 Notes & Details.dwg, Plotted: May 28, 2024 - 8:38am

REVISION	DATE:	BY:	DESCRIPTION:
	11/17/2023	CLH	ISSUE TO CITY FOR ENGINEERING REVIEW
	12/19/2023	CLH	ISSUE TO OEPA FOR REVIEW
	02/27/2024	CLH	REVISED CITY COMMENTS
	04/23/2024	CLH	REVISED PER CITY COMMENTS
	05/24/2024	CLH	REVISED PER CITY COMMENTS

DRAWN BY: SJM

CHECKED BY: CLH

BRAMHALL
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801 MOORE ROAD AVON, OHIO 44011
(440) 934 - 7878 (440) 934 - 7879 FAX

PREPARED FOR:

VALORE PROPERTIES, INC.
23550 CENTER RIDGE ROAD
WESTLAKE, OH 44145

HAMPTON PLACE SUBDIVISION - PHASE 8
SWP3 NOTES & DETAILS

CITY OF NORTH RIDGEVILLE, COUNTY OF LORAIN, STATE OF OHIO

SHEET 51 OF 52

JOB NO. 20-5445-8

NOTES

1. A MINIMUM OF 1 TREE SHALL BE INCLUDED ON THE INDIVIDUAL SITE PLAN. THE PROPOSED TREE SHALL BE POSITIONED SO THAT IT WILL BE OUTSIDE OF THE CITY RIGHT–OF–WAY.

2. PER CITY OF NORTH RIDGEVILLE ORDINANCE 1032.09(d)(3) DEVELOPERS SHALL USE A MINIMUM OF THREE DIFFERENT TYPES OF TREES WITHIN THE DEVELOPMENT. THE DEVELOPER SHALL PICK THREE OF THE FOLLOWING VARIETIES:

CRABAPPLE:
- MALUS SUTZARN AKA 'SUGAR TYME'
- MALUS PRAIRIFIRE'
- MALUS PROFESSOR SPRENGER
- MALUS CENTZAM AKA 'CENTURION'
- MALUS SPRING SNOW (NO FRUIT)

DOGWOOD:
- COMUS KOUSA 'KOUSA'
- CUYAHOGA GREY

HAWTHORN:
- CRATAEGUS CMS–GALLI VAR. INERMIS 'THOMLESS COCKSPUR' 'CRUSADER' IS A CULTIVAR OF THIS TREE

JAPANESE TREE LILACI:
- SYRINGA RETICULATA 'IVORY SILK'
- SYRINGA RETICULATA 'SUMMER SNOW'

MAPLE:
- ACER TATARICUM SSP. 'GINNAJA' AKA 'AMUR MAPLE' VARIETIES
- BETZAM AKA 'BEETHOVEN'
- EMBERS
- FLAME
- MOZAZAM AKA 'MOZART'
- CELEBRATION
- ARMSTRONG MAPLE
- ACER TATARICUM 'TATARIAN', VAR. 'RUBRMN'
- ACER BUERGERANUM ' TRIDENT', ›AR. 'STREET WISE'
- ACER CAMPESTIE 'HEDGE MAPLE' VARIETIES:
- QUEEN ELIZABETH'
- SCHICLITEL' S UPRIGHT' 'ST. GREGORY'

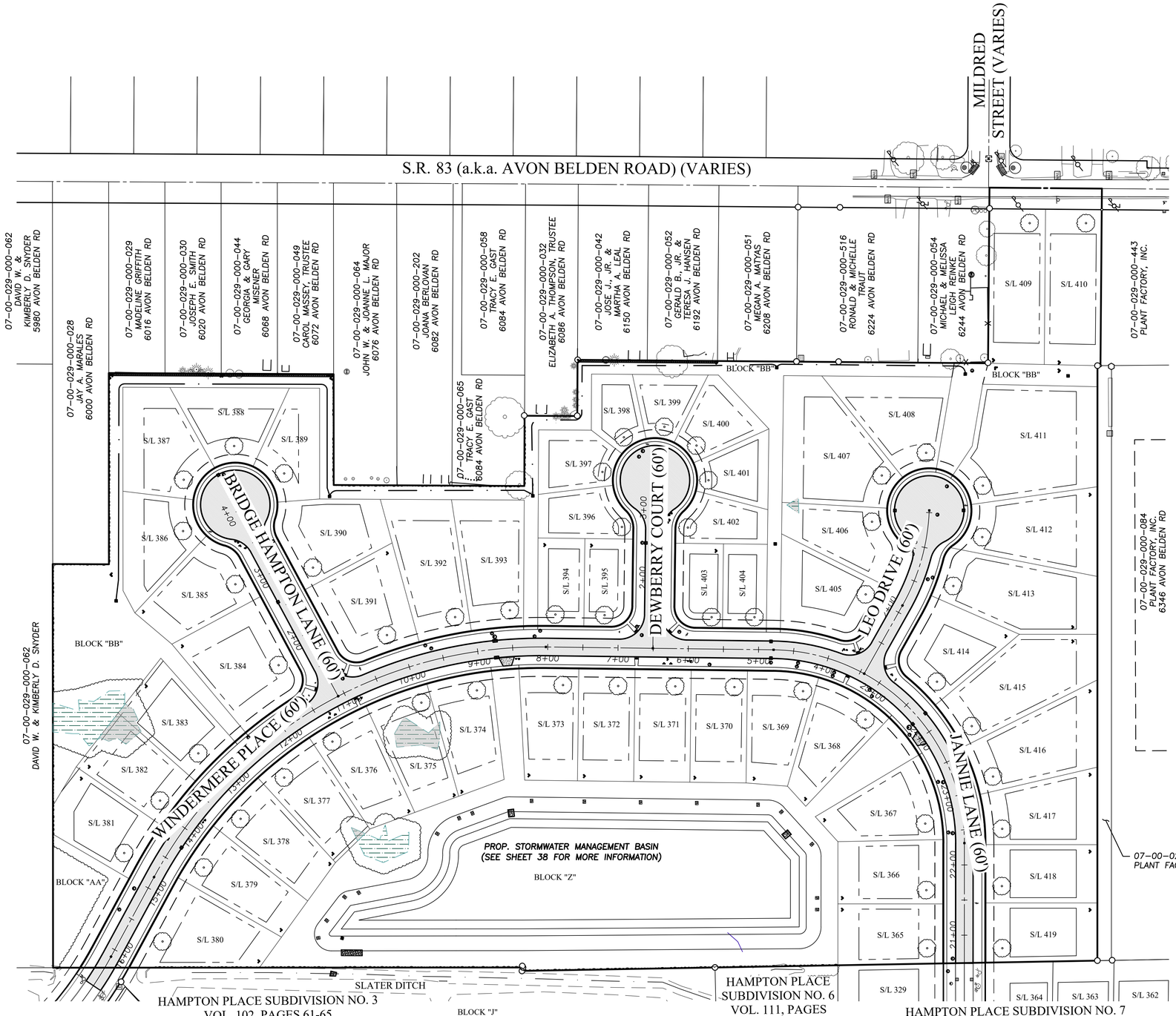
PEAR:
- PYRUS CALLERYANA VARIETIES:
- CLEVELAND SELECT OR 'CHANTICLEER' OR STONCHILL

REDBUD:
- CERCIS CANADENSIS VARIETIES:
- EASTERN RCDBUD' 'ALBA'
- FOREST PANSY'
- NORTHERN OR MINNESOTA STRAIN'
- WHITEBUD'

SERVICCBERRY: (MAXIMUM 5 FOOT HEIGHT AT PLANTLNG.) AINELANCLFIER X GRANDIFLORA VARIETIES:
- AUTUMN BRILLIANCE
- COLE'S SELECT'
- PRINCESS DIANA'
- REFZAM' AKA 'REFLECTIONS'
- ROBIN HILL'
- SNOWCLOUD'
- SPIRZANI' AKA 'SPRING GLORY'
- TRAZAM' AKA 'TRADITION'

LEGEND OF SYMBOLS

PROPOSED TREE LOCATION
FOR INTENT ONLY
FINAL LOCATION
TO BE DETERMINED
BY CITY.



REVISION	DATE:	BY:	DESCRIPTION:
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DRAWN BY: SJM

CHECKED BY: CLH

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801 MOORE ROAD AVON, OHIO 44011
(440) 934 - 7878 (440) 934 - 7879 FAX

PREPARED FOR:

VALORE PROPERTIES, INC.
23550 CENTER RIDGE ROAD
WESTLAKE, OH 44145

HAMPTON PLACE SUBDIVISION - PHASE 8
TREE PLANTING PLAN
CITY OF NORTH RIDGEVILLE, COUNTY OF LORAIN, STATE OF OHIO

SHEET 52 OF 52

JOB NO. 20-5445-8

J:\2054\5445-8 Hampton Place PH-8\DRAWINGS\Improvement Plans\(52) Tree Planting Plan.dwg, Plotted: May 28, 2024 - 8:38am

QUIT CLAIM DEED

Common Elements

VALORE PROPERTIES INC., an Ohio corporation ("Grantor"), for valuable consideration paid, grants, to **THE HAMPTON PLACE HOME OWNERS ASSOCIATION, INC.**, a Ohio nonprofit corporation, ("Grantee"), whose tax mailing address is c/o Titan Management, 34760 Center Ridge Road, PO Box 39531, North Ridgeville, OH 44039, the following real property:

Situate in the County of Lorain, State of Ohio, City of North Ridgeville and being part of O.L. 29, Block Z, Block AA and Block BB and Drainage, Utility and Landscape Easements as shown on the record plat for Hampton Place Subdivision No. 8, Document No. _____ of the Lorain County, Ohio Plat Records.

Parcel Nos:

Block Z:
Block AA:
Block BB:

Prior Deed References: Instrument Nos. 2016-0573410 and 2022-0883265

Said property shall be deemed to be "Common Elements" as the same is set forth in the Declaration of Covenants, Conditions and Restrictions and Reservation of Easements for The Hampton Place Homeowners Association as recorded in Instrument No. 2008-0252058 of the Official Records of Lorain County, Ohio, as amended and supplemented (the "Declaration") and as the Declaration may be subsequently amended. Said property may not be subdivided without approval of the planning commission having authority.

Said property is conveyed together with and subject to all sanitary sewer easements, storm water easements and utility easements as shown on the Record Plan for Hampton Place Subdivision No. 8 and being part of Original Lot No. 29 as recorded in Instrument No. _____of Lorain County Records, and as set forth in the Declaration.

Grantor hereby reserves for itself, its successors and assigns, all easements as shown on the Record Plan and as set forth in the Declaration.

Executed this _____ day of _____, 2024.

VALORE PROPERTIES, INC., an Ohio corporation

By:_____
Anthony Valore
President

STATE OF OHIO)
) SS:
COUNTY OF _____)

The foregoing instrument was acknowledged before me this ____ day of _____, 2024 by **Anthony Valore**, President of Valore Properties, Inc., an Ohio corporation, as his/her/their free act and deed.

_____
Notary Public
My Commission Expires: _____

This instrument was prepared by: Stephen J. Crawford, Esq., Crawford Law LLC, 2825 Key Tower, 127 Public Square, Cleveland, OH 44114-1257, scrawford@crawfordlawllc.com, Phone: (216) 750-6155

Disclaimer & Limitation of Liability: This instrument has been prepared as an accommodation only. Preparer does not represent any party hereto and has not provided any party hereto legal advice or a legal opinion with respect to the subject transaction. The information necessary to prepare this instrument (A) has been provided by the parties, and (B) is deemed reviewed, approved, accurate and complete by reason of the parties' execution and/or acceptance hereof. The parties represent and warrant to preparer that the foregoing instrument accurately reflects the terms and conditions of the subject transaction. Preparer has made no examination of the status of title nor made any representation as to the use or zoning of the property nor any other matter except the validity of the form of this instrument. Under no circumstances shall Stephen J. Crawford, Esq. or Crawford Law LLC be liable for any amount in excess of the consideration actually paid for this instrument. The parties hereby expressly waive any conflict of interest that may exist by virtue of preparer's representation of any title agent, settlement agent, title underwriter, or any participant to the transaction and agree that preparer may be compensated by any party hereto or any transaction participant for preparation of this instrument without nullifying the foregoing acknowledgements and waivers.

Planning Commission Application

RECEIVED
OCT 18 2024

CITY OF NORTH Ridgeville EST 1810

SUBMITTAL INSTRUCTIONS AND PROCEDURES

Plan reviews will be carried out according to the processes described in the City's Zoning Code.

- Pre-Application. Prior to making application, applicants are recommended to contact the city to discuss their development project. City staff will outline the review process and provide a checklist of required submittals.
- Application Submittal. Following the pre-application meeting, the applicant shall submit this completed application, fee and ten (10) sets of all required exhibits. All submissions shall be made in hard copy to the Building Division. Plans shall be collated, folded and easily legible.
- Staff Review. The applicant shall attend a staff review meeting and may be required to submit additional information and/or revised plans based on staff input.
- Variances. Where zoning variances are sought by the applicant, review by the Board of Zoning and Building Appeals will be necessary prior to consideration by the Planning Commission, requiring a separate application.
- Decision or Referral. Following staff review, complete submittals for Administrative Review projects may be considered for approval. For Council Review projects, complete submittals shall be referred to the next available Planning Commission meeting, which are held the second Tuesday of each month.

PROJECT INFORMATION

34273 ~~34275~~ Lorain Road
Location address

0700014106012
Parcel number(s)

Project type: ☒ Commercial/Industrial/Multi-Fam ☐ Prelim Major Subdivision ☐ Final Major Subdivision ☐ Lot Split

Project elements: ☒ New Construction ☐ Building Addition/Alteration ☐ Site Improvements ☐ Plat

New Circle K convenience store and fueling canopy with 6 fuel dispenser island with 2 access drives
Project description

APPLICANT/AGENT INFORMATION

Bret Lamb / Circle K Stores Great Lakes Region
Name/Company

935 E. Tallmadge Ave Akron, Ohio 44310
Applicant address

330-630-6300
Applicant phone

blamb@circlek.com
Applicant email

PROPERTY OWNER INFORMATION

AGLR Investments, LLC
Name/Company

36097 Westminister Ave North Ridgeville, OH 44039
Property owner address

513-535-1849
Property owner phone

Ryan@greenquestgroup.com
Property owner email

AUTHORIZATION AND ACKNOWLEDGEMENT

Bret Lamb — Digitally signed by Bret Lamb Date: 2024.10.14 10:35:05 -04'00'
Applicant signature

Ryan Schultheiss — Digitally signed by Ryan Schultheiss Date: 2024.10.14 08:27:03 -04'00'
Property owner signature

I hereby authorize the City of North Ridgeville, including Planning Commission members, to view the premises and consent to their entry onto the property for the purpose of observing site conditions related to review of my application.

OFFICE	PPZ No.	Planning Fee Paid	ACTION
	PPZ2024-0308	$150.00 ✓ #16970	

Planning Review

April 28, 2025

Project:	Circle K
Location:	34273 Lorain Road
PPNs:	07-00-014-106-012
District:	B-3 Highway Commercial District

Project Summary:

This proposal consists of a new Circle K gas station and retail store at the southeast corner of Lorain Road and Root Roads. The 4.384-acre property is zoned B-3 Highway Commercial District. Surrounding property has variety of zoning designations. To the east, north and northwest, property is also zoned B-3; to the south, property is zoned R-1 Residence District; to the west, property is zoned a combination of I-2 Limited Industry and B-1 Neighborhood Business District.

An automobile service station is a permitted use in the B-3 District. Proposed structures include a new 3,963 square foot store with 12 fueling stations covered by a canopy. The existing house, garage and any other accessory structures will be demolished. The project is zoning compliant in terms of building height, lot and yard requirements and lot coverage requirements.

The building is comprised mainly of various textures and colors of a Nichiha product, which is a fiber cement panel. A propane tank, ice chest and seasonal display areas are shown located on the sidewalk outside the main entrance. The canopy will be comprised of aluminum composite panels with steel supports. A trash enclosure is provided which will be constructed of a Nichiha brick to match the building. The gates will be urethane, which is a hard rubber product.

Based on the retail use and size of the store, 23 parking spaces are required. Plans show 17 striped parking spaces plus 12 spaces at the fueling stations. Planning Commission can determine if fueling station spaces can be counted to meet the demand for the store. Curbing is provided around the paved areas of the site. Bollards are shown along the front of the building to protect the structure from the head in parking.

Two curb cuts are shown, one on each frontage. The Lorain Road curb cut is a three-lane full access curb cut. The Root Road curb cut is a right-in, right out curb cut. A truck turn exhibit was provided. Sidewalks are provided along both frontages. A bike rack is required for this use.

The landscaping plan shows plantings along the frontages in beds and around the proposed ground signs. Arborvitae screening is provided along the east property line, wrapping the area where the dumpster enclosure is located. It is recommended that the arborvitae not be planted within 20 feet of the sidewalk to ensure driver visibility of pedestrians. Some additional trees are located along the Root Road driveway. Landscape irrigation is provided. Existing natural vegetation and the required riparian setback provides significant existing buffering for the vacant residential lot to the south.

Lighting consists of a combination of building mounted light fixtures, pole lighting and canopy lighting. Fixture types and site lighting levels meet code requirements. Mounting heights of pole lights are 18 feet, also well within requirements.

French Creek runs through the southern corner of the site which requires a riparian setback. Two wetland areas have also been identified in the rear portion of the site. Wetland A will be preserved and Wetland B will be removed. Stormwater will be collected in a basin to the rear of the property. The applicant has added a maintenance access route as recommended by staff from the parking lot to the stormwater basin along the north/east side of the building.

An exterior sign package has been provided. Four ground signs are shown: two "main ID" signs and two "fuel directional" sign. Building signage is shown, both on the main structure and on the fuel canopy. Variances will be required.

Traffic and access have been the key concerns of the city for this project. A Traffic Impact Study (TIS) was provided by the applicant which has been reviewed by the city's traffic engineering consultant as well as city staff. Significant discussions have taken place between all parties about existing and future traffic conditions and the need to anticipate road widening or other safety and efficiency improvements at the Root Road-Lorain Road intersection.

Based on these discussions, updates to the traffic study were made and the applicant has agreed to significant modifications from their original proposed plan, as well as conditions of approval. These include:

- Dedication of right-of-way to the city for potential future roadway widening and other improvements, including a future potential roundabout at Root and Lorain Roads.
    - The property owner will dedicate a 20-foot-deep strip of property along both Root and Lorain Roads.
    - The property owner will dedicate property at the intersection to accommodate a 160 ft ICD multi-lane roundabout with sidewalks (200-foot diameter).
    - The property owner will provide a larger easement area for the culvert at French Creek.
- Root Road curb cut shall be right in, right out only and be located as far south from the Lorain Road intersection as possible.
- Lorain Road curb cut may be full access with conditions.
    - At such future time a roundabout is constructed at Root and Lorain Roads, the full access Lorain Road curb cut for Circle K will be converted to a right in, right out curb cut.
    - If after the opening of the Circle K, significant traffic crashes result at the Lorain Road curb cut, the applicant agrees to convert the full access curb cut into a right in, right out curb cut, regardless of the existence of a roundabout. "Significant crashes" will be defined using MUTCD Signal Warrant #7 "Crash Experience" for guidance. MUTCD Warrant #7 would be triggered by four angle/pedestrian crashes in one year (Table 4C-2), or five angle/pedestrian crashes in a three-year period (Table 4C-3).
- Modifications to pavement markings will be made on both Root Road and Lorain Road per city requirements as part of the project. The NB left turn lane on Root will be extended.
- Agreement that any permanent signs located within future right-of-way would be relocated at the property owner's expense.

Planning Commission Comment Sheet

PROJECT INFORMATION

Circle K Convenience Store, fueling canopy & fuel dispenser island	
Proposed project	
34273 Lorain Rd	07-00-014-106-012
Location	Parcel number
November 12, 2024	October 31, 2024
Meeting date	Comments due

RECOMMENDATIONS

- Line of sights from the driveways need to be kept clear, because of the fire station and emergency vehicles, being located so close to the intersection. (May need to increase for safety)
- Water quantity and quality treatment is required.
- The HGL needs to modeled using the 100 yr flood elevation.
- Will need a private fire hydrant on site so that all points of the building are within 300 ft of a fire hydrant.
- A diagram showing the movement of emergency vehicles on site.
- Extend pipe under Root Rd.
- Make sure that any improvements do not affect the water surface elevation of the creek
- Wetland delineation report.
- EPA Permits.
- Parking space requirements, along with ADA stall requirements.
- Look at sidewalks along Lorain Rd., Root Rd. and at intersection.
- Accessible route from building to sidewalk.
- Access path to Pond for maintenance and repairs, with curb cut.
- Should have a 10ft path around the pond so the back side can be accessed.
- Check locations of Tanks and grease trap, in regards to wetlands and flood plain.
- Make sure any existing storm system and discharge routes are maintained or rerouted, including field drains. (Including offsite flow running thru the property)
- Can the storm sewer be re-routed so it does not go thru the wetland?
- Address comments to the Traffic Study recommendations.

SUBMITTED BY

Lori Birschbach-Tober	Assistance Engineer
Administrative officer signature	Title

Planning Commission Bylaws Article V Section 2 – Administrative Review. All applications including those plans and maps submitted to the Commission shall be referred to Administrative Officers. Comments and recommendations by Administrative Officers, if any, shall be forwarded to the Secretary not later than ten (10) calendar days after receipt. Administrative Officers who have not acted within the allotted time shall be deemed to have concurred with plans as submitted.

Planning Commission Comment Sheet

PROJECT INFORMATION

Circle K Convenience Store, fueling canopy & fuel dispenser island	
Proposed project	
34273 Lorain Rd	07-00-014-106-012
Location	Parcel number
November 12, 2024	October 31, 2024
Meeting date	Comments due

RECOMMENDATIONS

Please contact Asst. Chief Mike Uhnak with the North Ridgeville Fire Department. To discuss the following code requirements:

1: OFCRule5 Fire Service Feature-
Section 506: Fire Department Lock Box
Section 503: Fire Access Roads
Section 507: Fire Protection Water Supply

2: OFC Rule 33 Fire Safety During Construction.

3: NFPA 241 Standard for Safeguarding Construction Operations.

4: Chapter 16 Fire Prevention North Ridgeville City Ordinance.
1640.01: Fire Hydrants: All portions of the building must be within 300ft of a hydrant.

5: State Fire Marshal will permit all fuel dispensing installation.

6: LPG Cages and Carbon Dioxide Tanks will be protected with Bollards.

7: Carbon Dioxide Detection System will be installed in building near all beverage dispensing appliances.

Respectfully:

Asst. Chief Mike Uhnak
North Ridgeville Fire Department
Muhnak@nridgeville.org
(440)653-6362

SUBMITTED BY

Mike Uhnak	Asst. Chief
Administrative officer signature	Title

Planning Commission Bylaws Article V Section 2 – Administrative Review. All applications including those plans and maps submitted to the Commission shall be referred to Administrative Officers. Comments and recommendations by Administrative Officers, if any, shall be forwarded to the Secretary not later than ten (10) calendar days after receipt. Administrative Officers who have not acted within the allotted time shall be deemed to have concurred with plans as submitted.

WOOLPERT

Memo

To:	Kim Lieber, AICP; Director of Planning & Development – City of North Ridgeville, OH
From:	Woolpert, Inc.
Date:	December 2, 2024
Subject:	North Ridgeville Traffic GES - Circle-K TIS Review

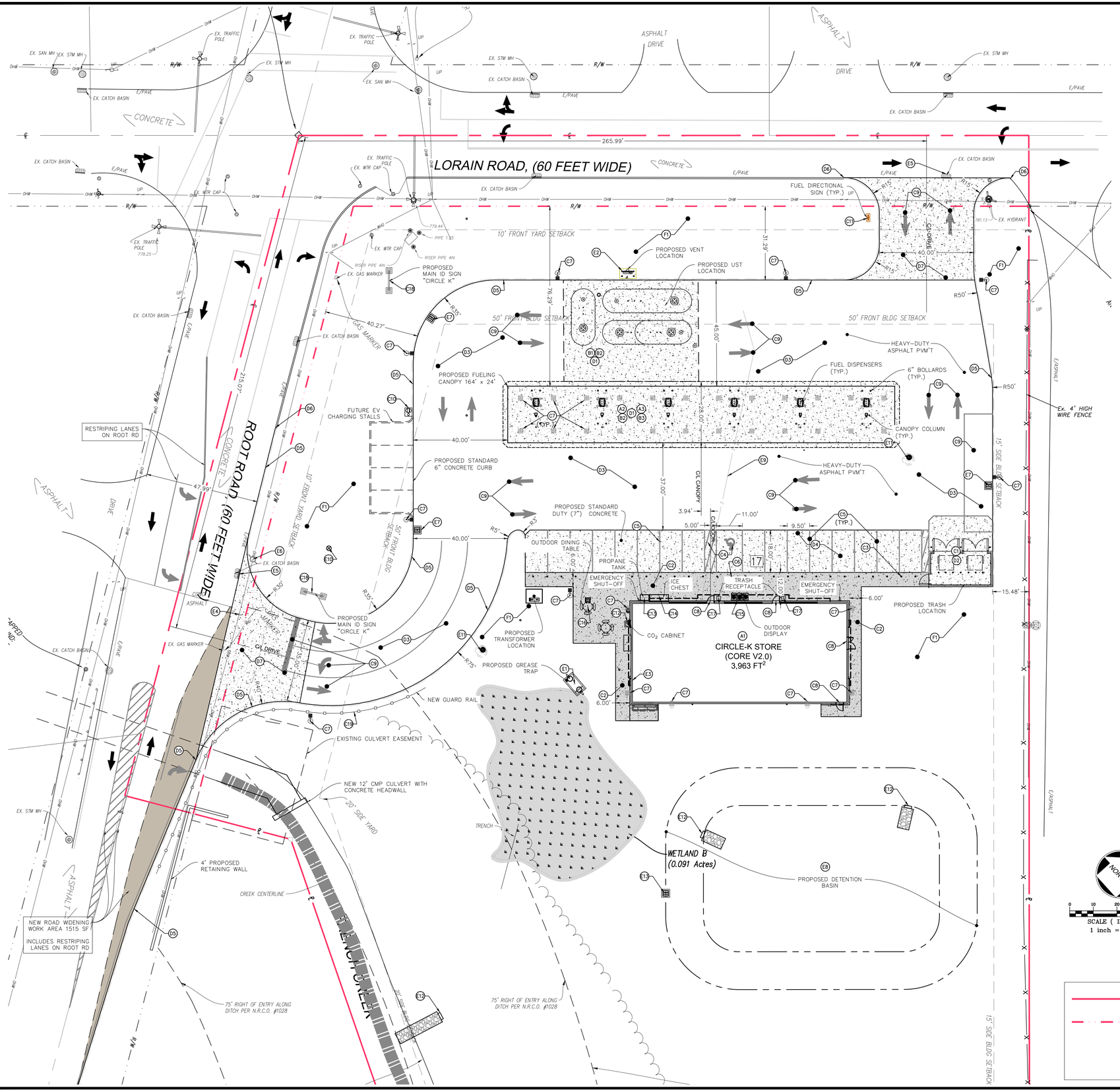
Background

The City of North Ridgeville, OH retained Woolpert to conduct a review of the *Proposed Circle K Gas Station / Convenience Store Traffic Impact Study* (TIS) dated August 2024 produced by GPD Group on behalf of Circle K Stores, Inc. and Colliers Engineering and Design. The subject TIS and associated site plan is part of an application submitted for approval on October 18, 2024 by Circle K Stores Great Lakes Region to the City of North Ridgeville Planning Commission.

Woolpert reviewed the TIS and planning application package in the context of continued local and regional growth, impacts the development may have on existing and future traffic flow, and potential on- and off-site improvements that may be necessary to ensure the proposed development does not negatively impact the adjacent roadway network or local/regional traffic movements.

Project Area

Figure 1 - Project Location and Approximate Property Area



SITE PLAN ITEMIZED NOTES

A. BUILDING AND CANOPY ITEMIZED NOTES:

1. CONSTRUCT CONVENIENCE STORE PER ARCHITECTURAL PLANS AND SPECIFICATIONS.
2. CONSTRUCT NEW CANOPY PER CANOPY CONSTRUCTION PLANS.
3. THE LIGHTING ON THE UNDERSIDE OF THE CANOPY MUST BE FLUSH MOUNTED.

B. TANK/FUEL SYSTEM ITEMIZED NOTES:

1. INSTALL (1) 20,000 GALLON (REG), (1) 20,000 GALLON SPLIT (12K+8K), AND (1) 12,000 GALLON (DIESEL) DOUBLE-WALL FIBERGLASS UNDERGROUND STORAGE TANKS. SEE TANK AND FUEL SYSTEM DRAWINGS (FE AND FG SERIES SHEETS) FOR DETAILS. (BY FUEL CONTRACTOR)
2. THE FOLLOWING CONCRETE WORK TO BE CONSTRUCTED BY THE FUEL CONTRACTOR:
   2.1. CONCRETE PAD UNDER CANOPY
   2.2. CONCRETE PAD ABOVE UNDERGROUND FUEL STORAGE TANKS
3. INSTALL DISPENSER ISLANDS, BOLLARDS, (6) GASOLINE DISPENSERS, E-STOP AND ALL ASSOCIATED PIPING PER FUEL SYSTEM DRAWINGS. (BY FUEL CONTRACTOR).

C. YARD AREA ITEMIZED NOTES:

1. CONSTRUCT MASONRY TRASH ENCLOSURE. SEE SHEET C6.5.
2. CONSTRUCT CONCRETE WALK PER SITE PLAN AND BUILDING DRAWINGS. SEE SHEET C6.1, DETAIL 5.
3. INSTALL 4" DIAMETER BOLLARD POST. SEE SHEET C6.1, DETAIL 6
4. PAINT HANDICAPPED SYMBOL AND ACCESS AISLE STRIPING PER APPLICABLE CODES. SEE SHEET C6.1, DETAIL 7.
5. PAINT 4" WIDE STRIPES FOR PARKING SPACES, ADA WALK WAYS AND NO PARKING SPACES. SEE SHEET C6.1, DETAIL 8.
6. INSTALL ACCESSIBILITY SIGNAGE ON BOLLARD. SEE SHEET C6.1, DETAIL 1.
7. CONSTRUCT ALL SITE LIGHTING PER SITE PHOTOMETRIC PLAN PREPARED BY RED LEONARD.
8. CONSTRUCT FROST ENTRY SLAB PER ARCHITECTURAL PLANS.
9. PAINT DIRECTIONAL TRAFFIC ARROWS, LANE DIVIDERS, STOP BAR STRIPING, TRANSVERSE PAVEMENT MARKING, AND "STOP" PAVEMENT MARKINGS.
10. INSTALL AIR UNIT. SEE SHEET C6.4, DETAIL 1.
11. INSTALL DIRECTIONAL SIGN. SEE APPROVED SIGN PACKAGE.
12. OUTSIDE STORAGE: CO2 CABINET
13. OUTSIDE STORAGE: PROPANE TANKS
14. OUTSIDE STORAGE: ICE MERCHANDISER
15. OUTSIDE STORAGE: SEASONAL SALES DISPLAY STANDS.
16. INSTALL OUTDOOR DINING TABLES SUPPLIED BY CIRCLE K.
17. INSTALL TRASH RECEPTACLE SUPPLIED BY CIRCLE K.
18. INSTALL MAIN IDENTIFICATION SIGN PER SIGN SUBMITTAL PACKAGE. REFERENCE SIGN MANUFACTURER'S DRAWINGS.
19. INSTALL GUARDRAIL. SEE SHEET 6.6, DETAIL XX.

D. PAVING ITEMIZED NOTES:

1. CANOPY APRON TO BE 6" THICK CONCRETE PAVEMENT AND TANK APRON TO BE 8" THICK CONCRETE WITH MAT REINFORCEMENT. SEE FUEL SYSTEM DRAWINGS.
2. INSTALL DUMPSTER PAD PER CONCRETE PAVING SECTION FOR TRUCK AREAS. SEE SHEET C6.0, DETAIL 2.
3. INSTALL HEAVY-DUTY ASPHALT PAVEMENT. SEE SHEET C6.0, DETAIL 8.
4. INSTALL STANDARD DUTY (6") CONCRETE PAVEMENT IN CAR PARKING/SPACES. SEE SHEET C6.0, DETAIL 2.
5. INSTALL 6" ODOT TYPE 6 CONCRETE CURB FOR ON-SITE WORK. SEE SHEET C6.1, DETAIL 2.
6. TRANSITION/TAPER NEW CONCRETE CURB OR PAVEMENT TO MEET EXISTING CURB OR EDGE OF PAVEMENT ELEVATION AND LOCATION. NEW CURB HEIGHT SHALL TRANSITION/TAPER INTO EXISTING CURB HEIGHT OVER A LENGTH 18"-24".
7. INSTALL DRIVE APRON (8") CONCRETE PAVEMENT.SEE SHEET C6.0, DETAIL 2.

E. UTILITIES ITEMIZED NOTES:

1. INSTALL GREASE TRAP. SEE SHEET C6.4, DETAIL 2.
2. INSTALL FUEL VENT RISERS. COORDINATE LOCATION WITH FUEL SYSTEM PLANS.
3. INSTALL GREASE TRAP VENT. COORDINATE WITH BUILDING PLUMBING PLANS.
4. EXISTING UTILITY POLE AND OVERHEAD WIRES TO BE RELOCATED. CONTRACTOR SHALL COORDINATE FINAL LOCATION OF UTILITY POLE WITH THE UTILITY PROVIDER.
5. EXISTING CATCH BASIN TO BE REPLACE/ADJUSTED TO GRADE PER CITY REQUIREMENTS.
6. APPROXIMATE LOCATION OF RELOCATED UTILITY POLE AND OVERHEAD WIRES. CONTRACTOR SHALL COORDINATE FINAL LOCATION OF UTILITY POLE WITH THE UTILITY PROVIDER.
7. INSTALL ODOT CB#2-3 PER DETAIL 2, SHEET C6.2.
8. INSTALL ABOVE-GROUND STORMWATER DETENTION BASIN.
9. EXISTING OVERHEAD WIRES TO BE REMOVED.
10. INSTALL ODOT CB32-2B PER DETAIL 3, SHEET C6.2.
11. INSTALL ODOT MH#3. SEE DETAIL 1, SHEET C6.2.
12. INSTALL ODOT HALF-HEADWALL. SEE DETAIL 1, SHEET C6.4.
13. OUTLET CONTROL STRUCTURE.

F. LANDSCAPING ITEMIZED NOTES:

1. INSTALL LANDSCAPING OR SEED.

PROPERTY LINES
RIGHT OF WAY LINES
CONCRETE PER DETAILS
PROPOSED CONCRETE WALK
EXISTING WETLAND AREA
DESIGNATES # OF PARKING SPACES PER ROW

OHIO811.org Before You Dig

CLIENT:
CIRCLE K
GREAT LAKE REGION
935 E. TALLMADGE AVE.
AKRON, OH 44130
(330) 630-6300

CONSULTANT:
Wellert ENGINEERS • SURVEYORS
5136 Beach Road • Medina, Ohio 44256
t: 330.239.2699

NO.	DATE	REVISION DESCRIPTION
A	10/18/24	ISSUED FOR PLANNING COMMISSION APPROVAL

STATE OF OHIO · DAVID A. WELLERT · 92316 · REGISTERED PROFESSIONAL ENGINEER

PROJECT TITLE
PROPOSED NEW CIRCLE K STORE

SITE ADDRESS:
34275 LORAIN RD
N. RIDGEVILLE, OHIO
44039
LORAIN COUNTY

SCALE:	1" = 20'
DATE:	09/05/2024
DESIGNED BY:	RWW
DRAWN BY:	YO
CHECKED BY:	ID
FILE NAME:	230907-C1.1 (Detailed).dwg
JOB NUMBER:	230907

DRAWING TITLE:
DETAILED SITE LAYOUT PLAN

SHEET NO:
C1.1

File: p:\230907\production\dwg\230907-C1.1 (detailed).dwg Saved: 10/18/2024 1:54 PM (yo) Last Plotted: 10/18/2024 1:58 PM (yo) Plotted By: ID Page Size: (---)

The project site occupies the corner of Lorain Rd (TR 12) and Root Rd (CR 24) as shown in **Figure 1**. As submitted to the Planning Commission, the proposed Circle K Gas Station would have two full access drives, one on the southern edge of the property adjoining Root Rd and a second full access drive on the eastern edge of the property to Lorain Rd (reference **9/5/2024 Site Plan** on previous page).

The site plan submitted to the City and reviewed by Woolpert indicates the following modifications are proposed for the full access drive at Root Rd:

- Widen northbound Root Rd south of the project site to accommodate northbound access into Circle K
- Install pocket northbound right turn lane from Root Rd to the Circle K drive
- Install pocket southbound left turn lane from Root Rd to the Circle K drive using existing pavement for the Lorain Rd/Root Rd northbound left turn lane.

No improvements are proposed at the full access drive with Lorain Rd. The Lorain Rd access drive is proposed as one lane in, one lane out; the Root Rd access drive is proposed as one lane in, two lanes out (one for each right and left turns). The site plan does not show any proposed sidewalk or bike/ped accommodations. Per North Ridgeville's Codified Ordinances, sidewalk is required along the boundary of all developments which border a public street.

TIS Traffic Analysis Review

Woolpert finds the methodologies and standards used in the provided traffic impact study to be acceptable. The study area, turning movement counts, trip generation, traffic volume calculations, and traffic analyses are all in accordance with accepted industry standards, including relevant ITE and ODOT standards. Woolpert identified the following safety and traffic points that warrant further consideration in the context of their impacts to the existing roadway network:

Safety

The safety analysis within the traffic impact study documents the crash history within the last three years in proximity of the site. While the study concludes that there are no existing crash trends of note, **Woolpert believes that the safety analysis does not account for future crash patterns that may develop following the opening of Circle K, especially at the proposed full access point on Root Rd**. The presence of two full access driveways near a signalized intersection will create additional conflict points that will likely result in an increase of crashes, particularly rear end and angle crashes. The proposed southbound left turn lane into the full access driveway on Root Rd backs up to the existing northbound left turn lane at the signalized intersection of Lorain Rd and Root Rd. The queuing analysis within the report shows queues are expected to exceed the available storage of these turn lanes which could lead to spillback into the adjacent through lanes, creating additional potential for rear end and other congestion related crashes.

Traffic

From a capacity analysis perspective, the traffic impact study acknowledges that the existing signal and intersection geometry at Lorain Rd and Root Rd will operate deficiently by the design year before the addition of the Circle K development traffic is accounted for. It is important to note that growth factors were applied to the analysis, but these were not specific future commercial or residential development in the area. The isolated analysis of the signal following the additional Circle K traffic shows that operations will be minimally impacted. **This analysis does not account for the potential for through traffic spilling back into the intersection as a result of the left turn lane conflicts at the full access entrance to Circle K on Root Rd**, as discussed previously. If southbound left traffic spills back upstream into the signal, the efficiency of the signal will be significantly impacted, and vehicles will experience more delay and the potential for grid-lock conditions.

At the full access driveway on Lorain Rd, the study does not make a recommendation to extend the existing westbound left turn lane for the signal at Root Rd. However, the queues in the study show that the westbound left turn lane queue in the 2045 PM Peak hour will extend 263', beyond the proposed access driveway. Westbound left turning traffic will likely spill back upstream and interact with westbound through vehicles. This may create confusion between thru vehicles and those wanting to turn left into the Circle K versus vehicles wanting to turn left at the signal.

Impacts to Existing Conditions

Woolpert finds that the proposed site plan does not prevent the City of North Ridgeville from exploring future improvements to the Lorain Rd Corridor such as widening to a four-, or five-lane section, the widening of the intersection to include additional turn lanes, or the conversion of the intersection to a single-, or multi-lane roundabout. Given the analysis indicating future capacity constraints, and continuing regional commercial and residential development growth, further study of the Lorain Rd/Root Rd intersection may be warranted to address failing LOS in the design year period.

Woolpert evaluated the footprint of a potential 160 ft inscribed circle diameter (ICD) multi-lane roundabout at the Lorain Rd/Root Rd intersection to determine what impacts it may have on the proposed site plan. A single-lane roundabout may be sufficient, but a multi-lane roundabout was used as a conservative measure to determine the maximum level of potential impact. A single- or multi-lane roundabout would likely also require some right of way acquisition, which was not evaluated as part of this analysis.

Woolpert determined that the site plan as reviewed would not be impacted by a roundabout of this size, but that it would not be possible to install walk around the NE quadrant of the roundabout without impacting internal pavement area of the proposed Circle K development (**Figure 2**). In the existing condition, there is no walk in this quadrant, and no walk is proposed by the site plan, so the lack of walk in a roundabout scenario would not be a net negative, but either way is a less desirable condition per current ODOT roundabout design standards.

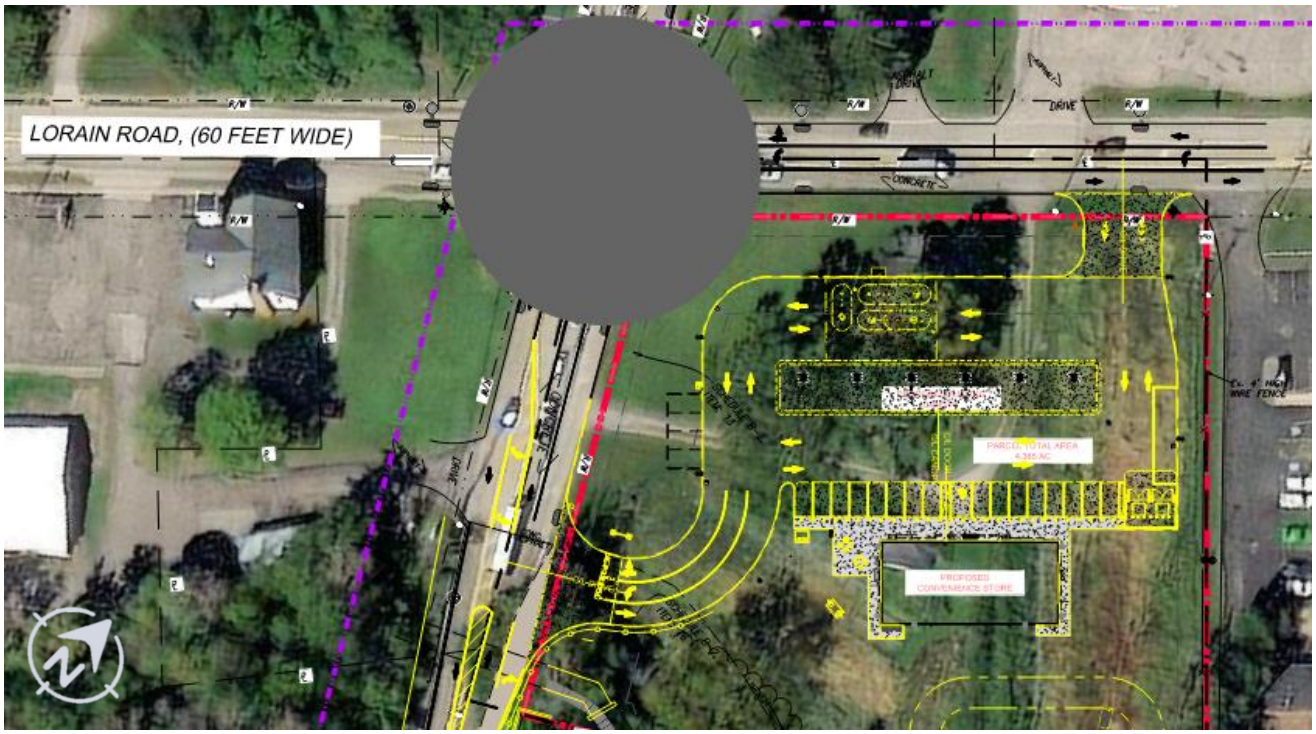


Figure 2 - 160 ICD Roundabout Footprint (Gray) Overlaid on Circle K Site Plan (To-Scale)

Woolpert finds that the proposed retaining wall on Root Rd (Figure 3), adjacent to the French Creek and south of the Root Rd access drive may inhibit future capacity improvements on Root Rd, including the potential extension of either the northbound left or right turn lanes. As the TIS analysis indicated both movements will experience queue storage ratios (QSR) beyond 1.0, Woolpert finds that adjusting the location of this retaining wall is warranted to allow for intersection approach widening at a future date.

The City of North Ridgeville Active Transportation Plan (published November 2024) Identifies Root Rd as a high priority corridor for bicycle and pedestrian facility improvements. Based on its position in the site plan, the proposed retaining wall on the eastern side of Root Rd would restrict any future sidewalk or multi-use path from being built without first removing and reconstructing the retaining wall. To facilitate both traffic and ped/bike connectivity in

the project area, the retaining wall should be redesigned such that it can accommodate a minimum three-lane (preferably four-lane) section on Root Rd, along with a tree lawn and minimum 5 ft walk on both sides of Root Rd.

Favorable placement of the retaining wall would require relocating it north and east, off of public right of way and into the adjacent parcel (#0700014106013) that is currently owned by the developer pursing the Circle-K development.

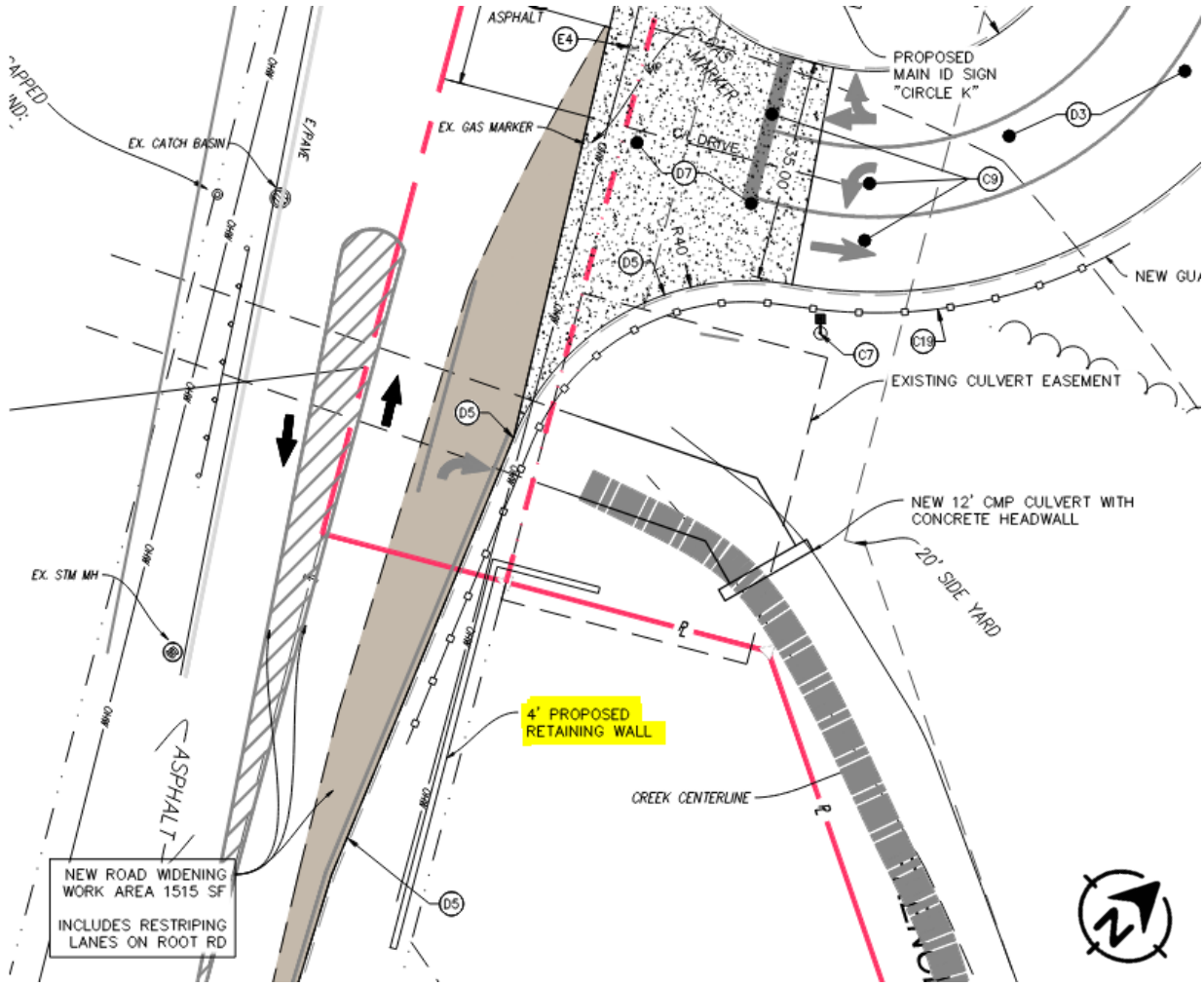


Figure 3 - Location of Proposed Retaining Wall (from Pg. 10 of 9/5/2024 Site Plan)

Recommendations

Following evaluation of the *Proposed Circle K Gas Station / Convenience Store Traffic Impact Study*, Woolpert makes the following recommendations to address safe access into/out of the subject property, and safe movement of traffic approaching the project site and through the adjacent City maintained signalized intersection.

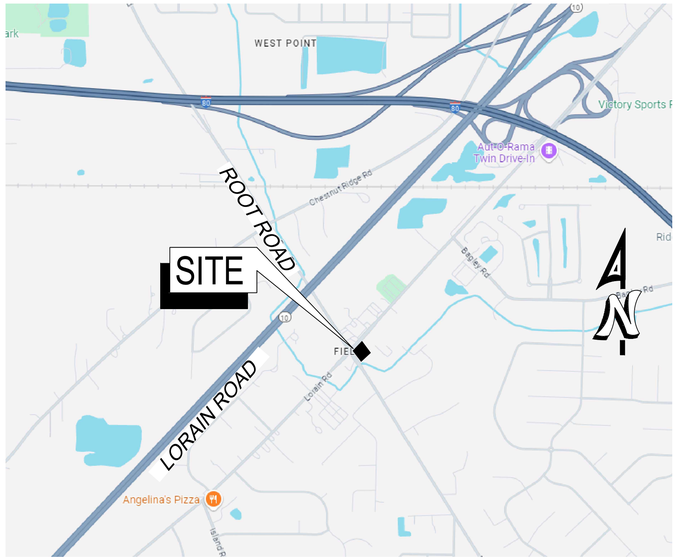
Recommendations for Circle-K Project

- Maintain setback from Lorain and Root Rd sufficient to allow for a 160 ft ICD multi-lane roundabout as measured from the center of the existing intersection (reference **Figure 2**)
- Convert the proposed full access drive on Root Rd to Right In, Right Out Only (RIRO)
- Design RIRO access onto Root Rd such that it does not prevent widening Root Rd from a two-lane section to a three- or four-lane section in the future condition

- Extend northbound left turn lane approximately 50 ft south, using pavement originally intended for southbound left turn access
- Relocate proposed retaining wall further east (on developer owned property south of project site) to facilitate potential future widening of Root Rd from two-lane section to three- or four-lane section and inclusion of future sidewalk (reference **Figure 3**)
- Revise site plan to show proposed sidewalk, located such that it does not inhibit future widening of Root Rd from two-lane section to three- or four-lane section or extension of existing turn lanes further south along Root Rd

Recommendations for the City of North Ridgeville

- Install five-section (right arrow) signal head on northbound mast arm and operate northbound right turn overlap phase concurrent with westbound protected left phase



VICINITY MAP

NOT TO SCALE

GREAT LAKES REGION
SITE IMPROVEMENT PLANS
FOR
NTI CIRCLE K STORE

34273 LORAIN ROAD
NORTH RIDGEVILLE, OH 44039
LORAIN COUNTY

UTILITY CONTACTS

SERVICE DEPARTMENT (STORM, SANITARY AND WATER SYSTEMS)
35010 BAINBRIDGE ROAD
NORTH RIDGEVILLE, OH 44039
PHONE: (440) 490-2094
FAX: (440) 490-2094

PLANNING / ZONING:
7307 AVON BELDEN ROAD
NORTH RIDGEVILLE, OH 44039
PHONE: (440) 490-2046

GAS:
COLUMBIA GAS
10640 W RIVER RD,
COLUMBIA STATION, OH 44028
(440)236-3660

TELEPHONE-COMM / INTERNET:
FRONTIER.COM
WINDSTREAM.COM
SPECTRUM.COM

ELECTRIC:
OHIO EDISON (A FIRST ENERGY CO.)
(800) 633-4766
76 S MAIN ST,
AKRON, OH 44308

OHIO811.org Before You Dig

FLOODPLAIN NOTE

THE SITE IS LOCATED IN ZONE "X", AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN. DEFINED BY FEMA FLOOD MAP SERVICE CENTER DRAWING NUMBER: 39093C0251D, EFFECTIVE ON 08/19/2008.

CURRENT PROPERTY OWNER

AGLR INVESTMENTS LLC
Parcel #:0700014106012
DOC #: 2023092432
07-03-2023
4.40 ACRES

SURVEYOR NOTE

SURVEY WAS PERFORMED MARCH 2024.

UTILITY NOTE

UTILITIES ARE SHOWN PER RESULT OF FIELD SURVEY, OUPS MARKINGS AND RECORDS PLANS PROVIDED BY CITY. NO ADDITIONAL RECORD RESEARCH WAS COMPLETED. ALL UTILITIES MAY NOT BE SHOWN. CONTRACTOR MUST CAREFULLY FIELD VERIFY UTILITY DETAILS IN WORK AREA PRIOR TO INITIATION OF CONSTRUCTION ACTIVITIES.
OUPS REFERENCE NUMBER: B406600297-00B AND 5406600294-00B

FUTURE OWNER/DEVELOPER

MAC'S CONVENIENCE STORES, LLC
CIRCLE K GREAT LAKES DIVISION
935 E. TALLMADGE AVE.
AKRON, OH 44310

CIVIL DRAWING LIST

Sheet Number	Sheet Title	Rev No.
CS	PROJECT COVER SHEET	B
S1.0	ALTA-NSPS LAND TITLE SURVEY (TITLE PAGE)	B
S1.1	ALTA-NSPS LAND TITLE SURVEY AND TOPOGRAPHIC SURVEY	B
S1.2	ALTA-NSPS LAND TITLE SURVEY	B
C1.0	OVERALL SITE LAYOUT PLAN	D
C1.0A	COLORIZED ZONING MAP	B
C1.0B	ZONING MAP WITH AERIAL OVERLAY	B
C1.1	DETAILED SITE LAYOUT PLAN	B
C1.2	VEHICLE CIRCULATION PLAN	C
C2.0	PRELIMINARY SITE GRADING PLAN	B
C3.0	PRELIMINARY SITE UTILITY PLAN	B
C4.0	SITE LANDSCAPING PLAN	B
C4.1	SITE LANDSCAPING DETAILS	B
C4.2	SITE LANDSCAPING PLAN WITH PLANT PHOTOS	B
C6.0	SITE DETAILS & SPECIFICATIONS	A
C6.1	SITE DETAILS & SPECIFICATIONS	A
C6.2	SITE DETAILS & SPECIFICATIONS	A
C6.3	SITE DETAILS & SPECIFICATIONS	A
C6.4	SITE DETAILS & SPECIFICATIONS	A
C6.5	SITE DETAILS & SPECIFICATIONS	B
C6.6	SITE DETAILS & SPECIFICATIONS	A
C6.7	SITE CONSTRUCTION NOTES	A

PROJECT NAME AND ADDRESS		
PROJECT NAME:		*PROPOSED CIRCLE K CONVENIENCE STORE AND FUELING STATION*
PROJECT ADDRESS:		*34273 LORAIN RD N. RIDGEVILLE, OHIO 44039*
	CITY:	*NORTH RIDGEVILLE*
	COUNTY:	*LORAIN*
	STATE:	*OHIO*
PROJECT DESCRIPTION		
CIRCLE K STORES PLANS TO CONSTRUCT A NEW CONVENIENCE STORE WITH ASSOCIATED AUTO FUEL SALES. NEW FACILITIES CONSISTING OF A 3,962 S.F. CONVENIENCE STORE, 3,928 S.F. AUTO FUEL CANOPY WITH (6) FUEL PUMPS. THE CONVENIENCE STORE WILL SELL BEER AND WINE FOR OFFSITE CONSUMPTION. THE FACILITY WILL OPERATE 24 HOURS.		
ZONING INFORMATION		
ZONING DESIGNATION:		
	EXISTING ZONING:	*B-3 HIGHWAY SERVICE BUSINESS DISTRICT*
	PROPOSED ZONING:	*B-3 HIGHWAY SERVICE BUSINESS DISTRICT*
MINIMUM LOT WIDTH:		*150*
MAX % LOT COVERAGE:		*25%*
MAX. BUILDING HEIGHT (STORIES/FEET):		*60 FEET (5-STORIES)*
	EXISTING BUILDING(S):	*HOUSE, GARAGE, AND SHED - 1 STORY*
	PROPOSED BUILDING(S):	*1 STORY (22'-0" - TOP/FRONT PARAPET)*
MAX. CANOPY HEIGHT (STORIES/FEET):		*N/A*
	EXISTING CANOPY:	*N/A*
	PROPOSED CANOPY:	*AUTO FUEL CANOPY = 20'-6" (TOP/FASCIA)*
BUILDING SETBACKS:		
	FRONT YARD:	*50 FEET*
	SIDE YARD:	*15 FEET OR 20 FEET IF ADJACENT TO RESIDENTIAL ZONING*
	REAR YARD:	*40 FEET*
PARKING SETBACK/LANDSCAPE BUFFER:		
	FRONT LOT LINE	*10 FEET*
	SIDE LOT LINE	
	REAR LOT LINE	
PROJECT POST-DEVELOPMENT CHARACTERISTICS		
CIRCLE K PARCEL AREA:		*4.3848 AC. - 0.3997(R/W)= 3.9851 Ac.*
	TOTAL IMPERVIOUS SURFACE AREA (INCLUDES ROOF/PAVEMENT):	*0.97 Ac.*
BUILDING SQUARE FOOTAGE:		
	EXISTING BUILDING AREA	*HOUSE-1188 SF, GARAGE-582 SF, SHED-346 SF*
	PROPOSED STORE BLDG. AREA	*3,963 S.F.*
	PROPOSED CANOPY AREAS	*AUTO CANOPY = 3,928 S.F.*
MAX. PERCENTAGE OF LOT COVERAGE (ALLOWED):		*N/A*
PROPOSED PERCENTAGE OF LOT COVERAGE (BLDG/CANOPY):		*4.5%*
PROPOSED PERCENTAGE OF LOT COVERAGE (IMPERVIOUS AREA):		*24.3%*
PARKING INFORMATION		
MINIMUM PARKING REQUIREMENTS:		
1 SPACE PER 200 SF USABLE AREA @ 3963 SF		*3963/200 = 19.8 (USE 20 SPACES)*
1 SPACE PER EMPLOYEE		*1 * 3 = 3 SPACES*
TOTAL PARKING REQUIRED:		*23 SPACES*
PARKING PROVIDED:		
	AUTO PARKING SPACES @ 9.5' X 18'	*16 SPACES*
	HANDICAP SPACES @ 9.5' X 18'	*1 SPACES*
	AUTO FUELING POSITIONS	*12 SPACES*
	TOTAL PARKING + FUELING POSITIONS PROVIDED:	*29 SPACES*
	FUTURE EV PARKING SPACES @ 9.5' X 18'	*0*
EMPLOYEE INFORMATION		
No. EMPLOYEES/SHIFT:		*3*

REFERENCE DRAWINGS

ARCHITECTURAL PLANS (11x17 Color)

Sheet Number	Sheet Title
----	CORE STANDARD LAYOUT
----	STORE ELEVATIONS
----	LEFT CORNER VIEW
CA-1	FUEL CANOPY ELEVATIONS

LIGHTING PLANS BY RED LEONARD (11x17 Color)

Sheet Number	Sheet Title
RL-9873-S1 (1/5)	PHOTOMETRIC PLAN
RL-9873-S1 (2/5)	FIXTURE INFORMATION
RL-9873-S1 (3/5)	FIXTURE PLACEMENT
RL-9873-S1 (4/5)	ILLUMINATION MAPPING (COLOR)
RL-9873-S1 (5/5)	ILLUMINATION MAPPING (B&W)

EXTERIOR SIGN PACKAGE BY CIS (11x17 Color)

Sheet Number	Sheet Title
1 / 8	COVER SHEET
2 / 8	EXISTING PROPERTY PHOTOS
3 / 8	SITE PLAN
4 / 8	LANDSCAPE PLAN - (NOT PROVIDED)
5 / 8	MID SIGN
6 / 8	STORE FRONT ELEVATION
7 / 8	STORE EAST AND WEST ELEVATIONS
8 / 8	CANOPY

CLIENT:

CIRCLE K
GREAT LAKE REGION
935 E. TALLMADGE AVE.
AKRON, OH 44130
(330) 630-6300

CONSULTANT:

Wellert ENGINEERS • SURVEYORS
5136 Beach Road • Medina, Ohio 44256
t: 330.239.2699

NO.	DATE	REVISION DESCRIPTION
A	10/18/24	ISSUED FOR PLANNING COMMISSION APPROVAL
B	04/25/25	REVISIONS PER CITY REVIEW AND ISSUED FOR PLANNING COMMISSION APPROVAL

STATE OF OHIO — ROBERT W. WELLERT E-59085 — REGISTERED PROFESSIONAL ENGINEER

PROJECT TITLE

PROPOSED NEW CIRCLE K STORE

SITE ADDRESS:

34273 LORAIN RD
N. RIDGEVILLE, OHIO
44039
LORAIN COUNTY

SCALE:	AS NOTED
DATE:	09/05/2024
DESIGNED BY:	ID
DRAWN BY:	ID
CHECKED BY:	ID
FILE NAME:	230907-CS.dwg
JOB NUMBER:	230907

DRAWING TITLE:

PROJECT COVER SHEET

SHEET NO:

CS

File: p:\230907\production\dwg\230907-cs.dwg Saved: 4/25/2025 4:26 PM (cwelch) Printed: 4/25/2025 4:28 PM (cwelch) Plotstyle: ISC Standard.ctb Scale: 1:1 Page Name: (----)

ALTA/NSPS LAND TITLE SURVEY

34275 LORAIN ROAD
CITY OF NORTH RIDGEVILLE, LORAIN COUNTY, OHIO

DESCRIPTION

THE FOLLOWING DESCRIPTION PROVIDED BY FIRST AMERICAN TITLE INSURANCE COMPANY AS DESCRIBED IN CHICAGO TITLE INSURANCE COMPANY COMMITMENT NUMBER: 38230498, DATED 03-27-2024.

Situated in the City of North Ridgeville, County of Lorain, and State of Ohio, and further known as being part of Lots 11 & 14, Original Ridgeville Township, being Township Number 6 in the 16th Range of Townships in the Connecticut Western Reserve:

Beginning at a 1 inch iron pin found in a monument box assembly at the intersection of the centerline of Root Road (60 feet wide) with the centerline of Lorain Road (60 feet wide):

Course 1: Thence North 41°51'11" East along the centerline of said Lorain Road, 309.42 feet to the northwest corner of land conveyed to JDA Ridgeville LLC by Instrument Number 2016-0602214 of Lorain County Records (PPN: 07-00-014-106-003);

Course 2: Thence South 48°12'02" East along the southwesterly line of said JDA Ridgeville LLC, passing through a ⅝ inch iron pin (ID: 7477) found at 30.00 feet in the southerly sideline of said Lorain Road, and a 1 inch iron pipe found at 644.08 feet, a total distance of 663.15 feet to an iron pin set in the northwesterly line of land conveyed to William J. Majcher by Instrument Number 2018-0684135 of Lorain County Records (PPN: 07-00- 011-103-188);

Course 3: Thence South 52°15'39" West along said northwesterly line of Majcher, 152.54 feet to a westerly corner thereof, and the northerly corner of land conveyed to AGLR Investments LLC by Instrument Number 2021-0855014 (PPN: 07-00-014-106-005), witnessed by a 5/8 inch iron pin (ID: 7477) found South 32°22'49" East, 8.61 feet;

Course 4: Thence South 58°05'43" West along the northwesterly line of said AGLR Investments LLC, 41.70 feet to an iron pin set;

Course 5: Thence North 85°17'27" West, 33.68 feet to an iron pin set;

Course 6: Thence North 67°10'51" West, 315.94 feet to an iron pin set;

Course 7: Thence South 56°36'49" West, passing through an iron pin set at 42.74 feet in the easterly sideline of said Root Road, a total distance of 72.74 feet to the centerline of said Root Road;

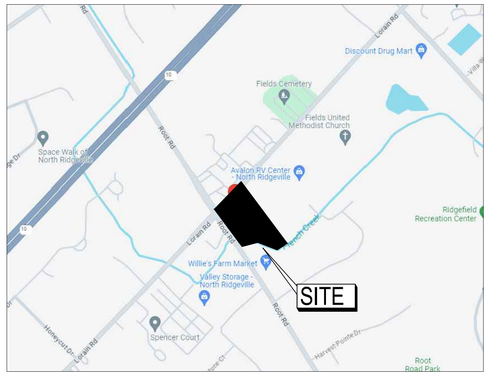
Course 8: Thence North 33°23'11" West along said centerline of Root Road, 289.43 feet to the place of beginning, and containing 4.3848 acres of land (of which the present road occupies 0.3965 acres) and 4.3578 acres are in O.L. 14 and 0.0270 acres are in O.L. 11 calculated and described based on a field survey made under my supervision in April 2022 by Richard A. Thompson Jr., Ohio Registered Professional Land Surveyor #7388 of Polaris Engineering and Surveying Inc. This description has been made in accordance with the provisions of Chapter 4733-37 of the Ohio Administrative Code, all dimensions are based on the U.S. Survey foot definition bearings Refer to the Ohio State Coordinate System of 1983 (North Zone) based on the ODOT Cors/VRS System NAD83 (2011) Datum, all iron pins set are 5/8 inch diameter by 30-inch long rear with Identification Cap.

The intent of this description is to describe a 4.3848 acre split of land out of land conveyed to AGLR Investments LLC, Instrument Number 2021-0855014, dated 12/20/2021 of Lorain County Records (PPN: 07-00-014-106-007).

For Informational Purposes Only: PPN: 07-00-014-106-012 and 07-00-011-103-186

VICINITY MAP

NOT TO SCALE



ENCROACHMENTS

1. FENCE ENCROACHES ONTO ADJOINER PROPERTY
2. UTILITY BOX ENCROACHES ONTO SUBJECT PROPERTY
3. OVERHEAD WIRES ENCROACH ONTO SUBJECT PROPERTY
4. GAS LINE ENCROACHES ONTO SUBJECT PROPERTY
5. WATER LINE ENCROACHES ONTO SUBJECT PROPERTY

BASIS OF BEARINGS

BEARINGS ARE BASED ON OHIO NORTH STATE PLANE GRID PER ODOT VRS NETWORK SYSTEM NAD 83(2011) REFERENCE FRAME (2010 EPOCH) AS SURVEYED ON 03/18/2024

LEGEND

WATER LINE	W
UNDERGROUND ELECTRIC	E
UNDERGROUND TELEPHONE	T
OVERHEAD LINE	OHW
SANITARY LINE	SAN
STORM LINE	STM
GAS LINE	G
CABLE LINE	C
5/8 X 30 INCH REBAR SET WITH A CAP MARKED "WELLERT CORP" UNLESS OTHERWISE NOTED	CATCH BASIN
RAILROAD SPIKE FOUND AS NOTED	CURB INLET
5/8 INCH REBAR FOUND (NO CAP EXCEPT AS NOTED)	UNDERGROUND TANK LID
IRON PIPE FOUND AS NOTED	SANITARY MANHOLE
MONUMENT FOUND AS NOTED	STORM MANHOLE
MONUMENT BOX FOUND AS NOTED	WATER MANHOLE
R/W RIGHT OF WAY	GAS MANHOLE
(M) PER FIELD MEASUREMENT	TELEPHONE MANHOLE
(R) PER RECORD	COMBINED SEWER MANHOLE
FD FOUND	ELECTRIC MANHOLE
D DEED	CAR WASH MANHOLES
U USED	ELECTRIC METER
OBS OBSERVED	GAS METER
BENCHMARK	GAS CAP
x 999.99 EXISTING SPOT ELEVATION	WATER CAP
4" CLEAN OUT	FIRE HYDRANT
6" CLEANOUT	TELEPHONE PEDESTAL
MULTIPLE BULB LIGHT POLE	AIR CONDITIONING UNIT
SINGLE BULB LIGHT POLE	TRAFFIC BOX
TRAFFIC POLE	CABLE/TV PEDESTAL
UTILITY/POWER POLE	VACUUM
YARD LIGHT	MONITORING WELL
ROAD/STREET SIGN	TANK VENT RISER

REFERENCES

NOTE: ALL DOCUMENTS LISTED OR ON THIS PLAT ARE FROM THE LORAIN COUNTY RECORDER'S RECORDS

- DOCUMENTS AS LISTED ON THIS PLAT.
- BOUNDARY SURVEY BY HOFMANN-METZKER INC., SURVEY #: 49399
- PLAT OF LOT SPLIT BY POLARIS ENGINEERING AND SURVEYING, SURVEY #: 50929

OHIO811.org Before You Dig

SCHEDULE B-2 ITEMS

THE FOLLOWING SCHEDULE B, PART II ITEMS PROVIDED BY FIRST AMERICAN TITLE INSURANCE COMPANY AS DESCRIBED IN CHICAGO TITLE INSURANCE COMPANY COMMITMENT NUMBER: 38230498, DATED 03-27-2024.

ITEM	GRANTEE	DESCRIPTION	DOCUMENT	ENCUMBERENCE
13	THE CITY OF AVON LAKE	25' X 50' UTILITY EASEMENT AND 15' WATERLINE EASEMENT.	BOOK: 966, PAGE: 793	25' X 50' UTILITY EASEMENT AND A 15' WATERLINE EASEMENT. LOCATIONS COULD NOT BE DETERMINED. IT IS ASSUMED THAT THESE EASEMENTS ARE INTENDED TO COVER THE UTILITIES AT THE NORTHWEST CORNER OF THE SUBJECT PARCEL AND THE WATERLINE ALONG ROOT ROAD. A COPY OF THE GRW ENGINEERS, INC. PLAN MAY HELP DETERMINE THE CORRECT LOCATIONS. NOT PLOTTED.
14	OHIO EDISON COMPANY	ELECTRIC AND TELEPHONE EASEMENT.	BOOK: 1281, PAGE: 151	ELECTRIC AND TELEPHONE EASEMENT. DOES NOT AFFECT SUBJECT PARCEL. NOT PLOTTED.
15	PAUL S. SKEEN & ARGENE C. CARR	SANITARY EASEMENT.	BOOK: 1219, PAGE: 175	DOES NOT AFFECT SUBJECT PARCEL. NOT PLOTTED
16	LORAIN COUNTY, OHIO	HIGHWAY EASEMENT.	BOOK: 1024, PAGE: 980	HIGHWAY EASEMENT. PLOTTED.

NOTES

SURVEY DATE:
SURVEY WAS PERFORMED MARCH 2024.

UTILITIES:
THE UNDERGROUND UTILITIES SHOWN ARE BASED ON INFORMATION OBTAINED FROM OUPS MARKINGS COMBINED WITH OBSERVED EVIDENCE. NO RECORD RESEARCH WAS COMPLETED . ALL UTILITIES MAY NOT BE SHOWN.

HOWEVER, LACKING EXCAVATION, THE EXACT LOCATION OF UNDERGROUND FEATURES CANNOT BE ACCURATELY, COMPLETELY, AND RELIABLY DEPICTED. IF THIS SITE IS TO BE IMPROVED, THE UTILITIES AND THEIR LOCATIONS SHOWN ON THIS SURVEY SHOULD BE VERIFIED. CONTRACTOR MUST CAREFULLY FIELD VERIFY UTILITY DETAILS IN WORK AREA PRIOR TO INITIATION OF CONSTRUCTION ACTIVITIES.

OUPS REFERENCE NUMBER: B406600297-00B AND 5406600294-00B

FLOOD ZONE
THE SITE IS LOCATED IN ZONE "X", AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN. DEFINED BY FEMA FLOOD MAP SERVICE CENTER DRAWING NUMBER: 39093C0251D, EFFECTIVE ON 08/19/2008

ZONING REQUIREMENTS ARE AS FOLLOWS:

THE PARCEL SURVEYED IS IN ZONING DISTRICT B-3, CATEGORY: HIGHWAY COMMERCIAL DISTRICT
FRONT YARD: 50 FEET
SIDE YARD: THERE SHALL BE TWO SIDES, THE SUM OF WHICH SHALL NOT BE LESS THAN 35 FEET, AND EACH SIDE YARD SHALL NOT BE LESS THAN 15 FEET, EXCEPT WHEN A SIDE YARD ADJOINS A RESIDENTIAL DISTRICT (20 FEET)
REAR YARDS: 40 FEET

PARCEL NUMBER: 07-00-014-106-012 AND 07-00-011-103-186

UTILITY CONTACTS

SANITARY SEWERS:
CITY OF NORTH RIDGEVILLE
SERVICE DEPARTMENT
440-353-0814

WATER:
AVON LAKE WATER
CARL BUSSE
440-541-8237
CBUSSE@AVONLAKEWATER.ORG

ELECTRIC:
OHIO EDISON / FIRST ENERGY
PHONE: 800-633-4766

STORM SEWERS:
CITY OF NORTH RIDGEVILLE
SERVICE DEPARTMENT
440-353-0814

GAS:
COLUMBIA GAS -
PHONE: 440-327-1833

TELECOM/INTERNET
FRONTIER -
PHONE: 877-361-0588
SPECTRUM -
PHONE: 844-872-4916
WINDSTREAM -
PHONE: 800-347-1991
BREEZELINE -
PHONE: 866-496-9669

NOTES:
- NO EVIDENCE OF RECENT EARTH WORK, BUILDING CONSTRUCTION, OR BUILDING ADDITIONS OBSERVED IN THE PROCESS OF FIELDWORK
- THE BUILDING LINES AND DIMENSIONS SHOWN DEPICT THE EXTERIOR BUILDING FOOTPRINT AT GROUND LEVEL, BASED ON FIELD MEASUREMENT. THIS INFORMATION IS INTENDED TO DEPICT THE GENERAL CONFIGURATION OF THE BUILDING AT GROUND LEVEL AND MAY OR MAY NOT BE THE EXACT DIMENSIONS OF THE BUILDING FOUNDATION. THE BUILDING SQUARE FOOTAGE SHOWN IS BASED ON THE EXTERIOR BUILDING FOOTPRINT AND IS NOT INTENDED TO REFLECT THE INTERIOR OR LEASE-ABLE AREA OF ANY BUILDING
- THERE WAS NO OBSERVABLE EVIDENCE OF CEMETERIES, GRAVE SITES, OR BURIAL GROUNDS ON THE SUBJECT PROPERTY AS DISCLOSED BY RECORD DOCUMENTS PROVIDED TO THE SURVEYOR, OR OBSERVED AT THE TIME OF THIS SURVEY.
- THE SURVEYOR HAS NOT OBTAINED ANY INFORMATION RELATING TO, AND HAS NO KNOWLEDGE OF ANY PROPOSED CHANGES TO STREET RIGHT OF WAY LINES. EXCEPT AS SHOWN HEREON, NO EVIDENCE OF RECENT STREET OR SIDEWALK CONSTRUCTION OR REPAIRS WERE OBSERVED WAS OBSERVED AT THE TIME OF THIS SURVEY.
- THE NUMBER OF STRIPED PARKING SPACES ON THE SUBJECT PROPERTY ARE AS FOLLOWS:

  REGULAR SPACES: 0
  HANDICAP SPACES: 0
  TOTAL: 0

BENCHMARK DATA:
ELEVATIONS ARE PER ODOT VRS (CORS SYSTEM) NAVD 88

BM#1: CHISELED "X" IN SOUTHERN UPPER BOLT IN FIRE HYDRANT, NEAR THE NORTHEAST CORNER OF THE SUBJECT PARCEL. ELEVATION: 781.13'

BM#2: NORTHEAST BOLT IN UTILITY POLE NEAR THE NORTHWEST CORNER OF THE SUBJECT PARCEL, AND NEAR THE SOUTH RIGHT OF WAY INTERSECTION OF LORAIN ROAD AND ROOT ROAD. ELEVATION: 779.44'

ALTA/NSPS CERTIFICATION

TO MAC'S CONVENIENCE STORES LLC, A DELAWARE LIMITED LIABILITY COMPANY, AND CHICAGO TITLE INSURANCE COMPANY:

THIS IS TO CERTIFY THAT THIS MAP OF PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2023 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS TABLE A ITEMS,1, 2, 3, 4, 5, 7B, 8, 9, 11, 13, 16, 17, 18, 19, AND 20 OF TABLE A THEREOF. THE FIELDWORK WAS COMPLETED 3-18-2024.

DATE OF PLAT: 04-02-2024

STATE OF OHIO · JAMES D. WELLERT · 7545 · REGISTERED PROFESSIONAL SURVEYOR

JAMES D. WELLERT, REGISTERED SURVEYOR, STATE OF OHIO NO. 7545

CLIENT:
CIRCLE K
GREAT LAKE REGION
935 E. TALLMADGE AVE.
AKRON, OH 44130
330-630-6300

CONSULTANT:
Wellert ENGINEERS · SURVEYORS
5136 Beach Road • Medina, Ohio 44256
t: 330.239.2699
WWW.WELLERT.COM

NO.	DATE	REVISION DESCRIPTION

PROJECT TITLE
PROPOSED CIRCLE K STORE

SITE ADDRESS:
34275 LORAIN ROAD
NORTH RIDGEVILLE OHIO, 44039
PART OF ORIGINAL LOTS 11 AND 14 OF ORIGINAL RIDGEVILLE TOWNSHIP, IN THE CITY OF NORTH RIDGEVILLE, COUNTY OF LORAIN, AND STATE OF OHIO

SCALE:
DATE: 04/02/2024
DESIGNED BY: ---
DRAWN BY: CCR
CHECKED BY: JDW
FILE NAME: 230907-SA.dwg
JOB NUMBER: 230907

DRAWING TITLE:
ALTA-NSPS LAND TITLE SURVEY (TITLE PAGE)

SHEET NO:
S1.0

File: o:\230907\production\dwg\230907-sa.dwg Saved: 4/17/2024 9:11 AM (cameron.ryks) Plotted: 4/17/2024 9:12 AM (cameron.ryks) Pltstyle: (MC Standard.ctb) Scale: (1:1) Page Setup: ("PDF-FULL SIZE")

BASIS OF BEARINGS

BEARINGS ARE BASED ON OHIO NORTH STATE PLANE GRID PER ODOT VRS NETWORK SYSTEM NAD 83(2011) REFERENCE FRAME (2010 EPOCH) AS SURVEYED ON 03/18/2024

OHIO811.org Before You Dig

LEGEND

WATER LINE	W		
UNDERGROUND ELECTRIC	E		
UNDERGROUND TELEPHONE	T		
OVERHEAD LINE	OHW		
SANITARY LINE	SAN		
STORM LINE	STM		
GAS LINE	G		
CABLE LINE	C		
5/8 X 30 INCH REBAR SET WITH A CAP MARKED "WELLERT CORP" UNLESS OTHERWISE NOTED		CATCH BASIN	
RAILROAD SPIKE FOUND AS NOTED		CURB INLET	
5/8 INCH REBAR FOUND (NO CAP EXCEPT AS NOTED)		UNDERGROUND TANK LID	
IRON PIPE FOUND AS NOTED		SANITARY MANHOLE	
MONUMENT FOUND AS NOTED		STORM MANHOLE	
MONUMENT BOX FOUND AS NOTED		WATER MANHOLE	
R/W RIGHT OF WAY		GAS MANHOLE	
(M) PER FIELD MEASUREMENT		TELEPHONE MANHOLE	
(R) PER RECORD		COMBINED SEWER MANHOLE	
FD FOUND		ELECTRIC MANHOLE	
D DEED		CAR WASH MANHOLES	
U USED		ELECTRIC METER	
OBS OBSERVED		GAS METER	
BENCHMARK		GAS CAP	
EXISTING SPOT ELEVATION		WATER CAP	
4" CLEAN OUT		FIRE HYDRANT	
6" CLEANOUT		TELEPHONE PEDESTAL	
MULTIPLE BULB LIGHT POLE		AIR CONDITIONING UNIT	
SINGLE BULB LIGHT POLE		TRAFFIC BOX	
TRAFFIC POLE		CABLE/TV PEDESTAL	
UTILITY/POWER POLE		VACUUM	
YARD LIGHT		MONITORING WELL	
ROAD/STREET SIGN		TANK VENT RISER	

CLIENT:

CIRCLE K
GREAT LAKE REGION
935 E. TALLMADGE AVE.
AKRON, OH 44130
330-630-6300

CONSULTANT:

Wellert ENGINEERS • SURVEYORS
5136 Beach Road • Medina, Ohio 44256
t: 330.239.2699
WWW.WELLERT.COM

NO.	DATE	REVISION DESCRIPTION

NORTH

0 15 30 60
SCALE (IN FEET)
1 inch = 30 ft.

PROJECT TITLE

PROPOSED CIRCLE K STORE

SITE ADDRESS:

34275 LORAIN ROAD
NORTH RIDGEVILLE OHIO, 44039

PART OF ORIGINAL LOTS 11 AND 14 OF ORIGINAL RIDGEVILLE TOWNSHIP, IN THE CITY OF NORTH RIDGEVILLE, COUNTY OF LORAIN, AND STATE OF OHIO

SCALE:	1"=30'
DATE:	03/25/2024
DESIGNED BY:	---
DRAWN BY:	CCR
CHECKED BY:	JDW
FILE NAME:	230907-SA.dwg
JOB NUMBER:	230907

DRAWING TITLE:

ALTA-NSPS LAND TITLE SURVEY AND TOPOGRAPHIC SURVEY

SHEET NO:

S1.0

JDA RIDGEVILLE, LLC
2016-0602214
09-26-2016
2.2900 ACRES

AGLR INVESTMENTS LLC
2023-0921096
07-03-2023
4.3848 ACRES
PARCEL #: 0700014106012

AGLR INVESTMENTS LLC
2021008737
12-20-2021
0.03 ACRES
PARCEL #: 0700011103186

WILLIAM J. MAJCHER
2018-0684135
08-17-2018
5.9379 ACRES

AGR INVESTMENTS LLC
2023-0921096
07-03-2023
1.0708 ACRES

JOSHUA J. & KITTY SALYER
2022-0898944
11-18-2022
1.0115 ACRES

LORAIN ROAD (160 FEET WIDE)

ROOT ROAD (60 FEET WIDE)

1" REBAR IN MONUMENT BOX FOUND AND USED

5/8" REBAR CAPPED "6752-7677" FOUND AND USED

BENCHMARK#1: "X" IN SOUTHERN UPPER BOLT IN FH ELEV=781.13'

BENCHMARK#2: NE BOLT IN UTILITY POLE ELEV=779.44'

SCHEDULE B-2, ITEM: 16

5/8" REBAR CAPPED "CARLSON" FOUND: 0.66' N, 0.43' E OF RIGHT OF WAY

2" WIDE CONCRETE RETAINING WALL OUTLET PIPE TOP OF PIPE=767.76' INV: (E) 759.76' 8" CMP

EXISTING GARAGE BUILDING FF= 775.16' AREA = 581.65 SQFT

EXISTING CORN SHED BUILDING FF= 769.88' AREA = 345.82 SQFT

OLD CAMPER

OLD SIGN

DESTROYED SHED LOCATION

75' RIGHT OF ENTRY ALONG DITCH PER N.R.C.O. #1028

APPROXIMATE WETLAND BOUNDARY

1" IRON PIPE FOUND: 0.18' N, 0.21' E

REBAR SET 3' SOUTH OF BOUNDARY ANGLE POINT

5/8" REBAR CAPPED "6752-7677" FOUND AND USED

N41° 51' 15"E 1541.51' (M & R)

N48° 10' 34"W 663.15' (M & R)

N41° 51' 15"E 309.32' (M & R)

N33° 23' 18"W 289.43' (M & R)

N56° 36' 51"E 72.73' (M & R)

S67° 10' 49"E 315.94' (M & R)

S85° 17' 25"E 33.93' (M & R)

S58° 07' 09"W 63.83' (M & R)

N58° 07' 09"E 41.53' (M & R)

S32° 21' 23"E 8.58' (M & R)

N52° 13' 43"E 152.15' (M & R)

N51° 00' 44"E 114.36' (M & R)

305.94' (M & R) N48° 08' 44"W

335.47' (M & R) N33° 12' 51"W

663.87' (M & R) N48° 10' 33"W

253.01' (M & R) S44° 25' 33"W

235.85' (M & R) N33° 23' 18"W

BASIS OF BEARINGS
BEARINGS ARE BASED ON OHIO NORTH STATE PLANE GRID PER ODOT VRS NETWORK SYSTEM NAD 83(2011) REFERENCE FRAME (2010 EPOCH) AS SURVEYED ON 03/18/2024

OHIO811.org Before You Dig

LEGEND

WATER LINE	W	5/8 X 30 INCH REBAR SET WITH A CAP MARKED "WELLERT CORP" UNLESS OTHERWISE NOTED	CATCH BASIN
UNDERGROUND ELECTRIC	E	RAILROAD SPIKE FOUND AS NOTED	CURB INLET
UNDERGROUND TELEPHONE	T	5/8 INCH REBAR FOUND (NO CAP EXCEPT AS NOTED)	UNDERGROUND TANK LID
OVERHEAD LINE	OHW	IRON PIPE FOUND AS NOTED	SANITARY MANHOLE
SANITARY LINE	SAN	MONUMENT FOUND AS NOTED	STORM MANHOLE
STORM LINE	STM	MONUMENT BOX FOUND AS NOTED	WATER MANHOLE
GAS LINE	G	RIGHT OF WAY	GAS MANHOLE
CABLE LINE	C	(M) PER FIELD MEASUREMENT	TELEPHONE MANHOLE
		(R) PER RECORD	COMBINED SEWER MANHOLE
		FD FOUND	ELECTRIC MANHOLE
		D DEED	CAR WASH MANHOLES
		U USED	ELECTRIC METER
		OBS OBSERVED	GAS METER
		BENCHMARK	GAS CAP
		769.88 EXISTING SPOT ELEVATION	WATER CAP
		4" CLEAN OUT	FIRE HYDRANT
		6" CLEANOUT	TELEPHONE PEDESTAL
		MULTIPLE BULB LIGHT POLE	AIR CONDITIONING UNIT
		SINGLE BULB LIGHT POLE	TRAFFIC BOX
		TRAFFIC POLE	CABLE/TV PEDESTAL
		UTILITY/POWER POLE	VACUUM
		YARD LIGHT	MONITORING WELL
		ROAD/STREET SIGN	TANK VENT RISER

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2016-0602214
09-26-2016
2.2900 ACRES

AGLR INVESTMENTS LLC
2023-0921096
07-03-2023
4.3848 ACRES
PARCEL #: 0700014106012

AGLR INVESTMENTS LLC
2021008737
12-20-2021
0.03 ACRES
PARCEL #: 0700011103186

WILLIAM J. MAJCHER
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08-17-2018
5.9379 ACRES

AGR INVESTMENTS LLC
2023-0921095
07-03-2023
1.0708 ACRES

JOSHUA J. & KITTY SALYER
2022-0898944
11-18-2022
1.0115 ACRES

LORAIN ROAD (60 FEET WIDE)
ROOT ROAD (60 FEET WIDE)
O.L. 14
O.L. 11
N51° 00' 44"E 114.36' (M & R)
N41° 51' 15"E 1541.51' (M & R)
1" REBAR IN MONUMENT BOX FOUND AND USED
305.94' (M & R) N48° 08' 44"W
335.47' (M & R) N33° 12' 51"W
N41° 51' 15"E 309.32' (M & R)
5/8" REBAR CAPPED "6752-7677" FOUND AND USED
BENCHMARK#1: "X" IN SOUTHERN UPPER BOLT IN FH ELEV=781.13'
669.87' (M & R) N48° 10' 33"W
N48° 10' 34"W 663.15' (M & R)
BENCHMARK#2: NE BOLT IN UTILITY POLE ELEV=779.44'
EXISTING GARAGE BUILDING FF= 775.16' AREA = 581.65 SQFT
N33° 23' 18"W 289.43' (M & R)
SCHEDULE B-2, ITEM: 16
DESTROYED SHED LOCATION
OLD CAMPER
EXISTING CORN SHED BUILDING FF= 769.88' AREA = 345.82 SQFT
5/8" REBAR CAPPED "CARLSON" FOUND: 0.66' N, 0.43' E OF RIGHT OF WAY
N56° 36' 51"E 72.73' (M & R)
2' WIDE CONCRETE RETAINING WALL OUTLET PIPE
S67° 10' 49"E 315.94' (M & R)
215.85' (M & R) N33° 23' 18"W
REBAR SET 3' SOUTH OF BOUNDARY ANGLE POINT
5/8" REBAR CAPPED "6752-7677" FOUND AND USED
S85° 17' 25"E 33.93' (M & R)
S58° 07' 09"W 63.83' (M & R)
N58° 07' 09"E 41.53' (M & R)
S32° 21' 23"E 8.58' (M & R)
N52° 13' 43"E 152.15' (M & R)
253.01' (M & R) S44° 25' 33"W
1" IRON PIPE FOUND: 0.18' N, 0.21' E
40' REAR YARD
15' SIDE YARD
20' SIDE YARD
APPROXIMATE WETLAND BOUNDARY
75' RIGHT OF ENTRY ALONG DITCH PER N.R.C.O. #1028
TREE LINE
CREEK CENTERLINE
MEAN HIGH STAKE
OUTLET PIPE (ORIENTATION UNKNOWN)
GRAVEL DRIVE
ASPHALT DRIVE
CONCRETE
GRASS
WEEDS
SANITARY MANHOLE
STORM MANHOLE
CATCH BASIN
GAS MARKER
ELECTRIC BOX
METER ON U.P.
CONCRETE UTILITY BOX
INLET PIPE
TRENCH
OLD SIGN

CLIENT:
CIRCLE K
GREAT LAKE REGION
935 E. TALLMADGE AVE.
AKRON, OH 44130
330-630-6300

CONSULTANT:
Wellert ENGINEERS • SURVEYORS
5136 Beach Road • Medina, Ohio 44256
t: 330.239.2699
WWW.WELLERT.COM

NO.	DATE	REVISION DESCRIPTION

NORTH
0 15 30 60
SCALE (IN FEET)
1 inch = 30 ft.

PROJECT TITLE:
PROPOSED CIRCLE K STORE

SITE ADDRESS:
34275 LORAIN ROAD
NORTH RIDGEVILLE OHIO, 44039
PART OF ORIGINAL LOTS 11 AND 14 OF ORIGINAL RIDGEVILLE TOWNSHIP, IN THE CITY OF NORTH RIDGEVILLE, COUNTY OF LORAIN, AND STATE OF OHIO

SCALE:	
DATE:	03/25/2024
DESIGNED BY:	---
DRAWN BY:	CCR
CHECKED BY:	JDW
FILE NAME:	230907-SA.dwg
JOB NUMBER:	230907

DRAWING TITLE:
ALTA-NSPS LAND TITLE SURVEY

SHEET NO:
S1.2

File: g:\230907\production\dwg\230907-survey Based 4/17/2024 9:11 AM (Connection) Plotted: 4/17/2024 9:11 AM (Connection) Page Setup: "PDF-FULL SIZE" Page Scale: 1"=30' (1:1)

ADA COMPLIANCE NOTE

IN ACCORDANCE WITH THE REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT (ADA) OF 1990 AND THE ADA AMENDMENTS ACT OF 2008. ALL RAMPS, CURB RAMPS AND SIDEWALKS SHALL BE CONSTRUCTED IN FULL COMPLIANCE TO THE DOJ 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN (2010 STANDARDS), INCLUDING ALL SUPPLEMENTS.

SLOPE CONSTRAINTS:
- ACCESSIBLE PARKING SPACE AND AISLE–1:48 (2.08%)
- ACCESSIBLE ROUTE– RUNNING SLOPE NOT TO EXCEED 1:20 (5.0%).
- CROSS SLOPE–NOT TO EXCEED 1:48 (2.08%).
- CURB RAMPS AND RAMPS–RUNNING SLOPE NOT TO EXCEED 1:12 (8.33%)
- CURB RAMP FLARED SIDES–NOT TO EXCEED 1:10 (10.0%)

TOTAL PARKING SPACES REQUIRED PER CODE

- 1 SPACE PER EVERY 200 SF OF RETAIL FLOOR AREA
- 1 SPACE PER EMPLOYEE
  - PROPOSED BUILDING SIZE = 3963 SF
  - 3963 SF/200 SF = 19.82 = 20 SPACES
  - PROPOSED 3 EMPLOYEES PER SHIFT
  - 3 EMPLOYEES x 1 SPACE/EMPLOYEE = 3 SPACES
  - TOTAL REQUIRED = 23 SPACES

TOTAL PARKING SPACES (PROVIDE)

16 @ 9.5'x18' (AUTO PARKING)
+ 1 ADA PARKING SPOT
+ 12 AUTO FUELING POSITIONS
29 TOTAL PARKING

GENERAL NOTES

- SEE SHEET C1.1 FOR DETAILED SITE PLAN
- SEE SHEET C6.7 FOR GENERAL SITE CONSTRUCTION NOTES

BUILDING AND CANOPY GENERAL NOTES:

1. REFER TO CERTIFIED BUILDING AND CANOPY DRAWINGS FOR DETAILS AND SPECIFICATIONS.
2. FRONT FACE OF SALES BUILDING AND CANOPY ARE PARALLEL TO THE SOUTHERLY R/W OF LORAIN ROAD BEARING N 41°15'51" E.
3. REFER TO SHEET C6.5 FOR TRASH ENCLOSURE DETAIL.

TANK/FUEL SYSTEM GENERAL NOTES:

1. REFER TO FUEL SYSTEM DRAWINGS (FE AND FG SERIES SHEETS) FOR DETAILS AND SPECIFICATIONS.

YARD AREA GENERAL NOTES:

1. REFER TO C6 SERIES SHEETS FOR YARD AREA DETAILS AND SPECIFICATIONS.

PAVING GENERAL NOTES:

1. EXISTING ROADWAY PAVEMENT DISTURBED BY CONSTRUCTION WORK SHALL BE REPAIRED BY CONTRACTOR TO STATE AND LOCAL STANDARDS.
2. INSTALL ¾" EXPANSION JOINT MATERIAL AT ALL CONCRETE CURB AND CONCRETE SLAB ABUTMENTS TO WALKS, PLATFORMS, WALLS AND OTHER CONCRETE SLABS, AND OTHER LOCATIONS AS DEPICTED ON PLAN.
3. CONTRACTOR SHALL PROVIDE CONSTRUCTION AND CRACK CONTROL JOINTS IN CONCRETE SLABS AT 10 FEET ON CENTER EACH WAY AND OTHER LOCATIONS AS DEPICTED ON PLANS. REFERENCE FUEL SYSTEM DRAWING, FUEL PIPING & CANOPY/DISPENSER LAYOUT PLAN, SHEET FG300, FOR CONTROL JOINT LOCATIONS. REFERENCE DETAILS ON SHEET FG304 FOR CONSTRUCTION JOINT AND SAWCUT DETAILS. CONTRACTOR TO SUBMIT JOINT LAYOUT PLAN FOR APPROVAL.
4. REFERENCE CONCRETE PAVING SECTION, SEE SHEET C6.0, DETAIL 2.
5. REFERENCE ASPHALT PAVING SECTION, SEE SHEET C6.0, DETAIL 8.

UTILITIES GENERAL NOTES:

1. ALL UNDERGROUND UTILITIES MUST BE INSTALLED PRIOR TO PREPARATION OF SUBGRADE FOR PAVEMENT.
2. ALL UTILITY WORK SHALL CONFORM TO GOVERNING STATE AND/OR LOCAL SPECIFICATIONS.
3. CONTRACTOR SHALL REVIEW THE FUEL SYSTEM PIPING AND CONDUIT LOCATIONS ON FG AND FE SERIES DRAWINGS AND AVOID INTERFERENCE WITH OTHER UNDERGROUND SITE UTILITIES

LANDSCAPING GENERAL NOTES:

1. REFER TO LANDSCAPE PLAN.

PARCEL AREA AND PPN:

1. PARCEL: 4.384 AC. (INCLUDES R/W AREA)
2. PERMANENT PARCEL #: 0700014106012

BENCHMARKS

ELEVATIONS ARE PER ODOT VRS (CORS SYSTEM) NAVD 88

BENCHMARKS:

BM #1 "X" IN SOUTHERN UPPER BOLT IN FIRE HYDRANT
ELEVATION: 781.13'

BM #2 NORTHEAST BOLT IN UTILITY POLE
ELEVATION: 786.24'

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LEGEND

- PROPERTY LINES
- RIGHT OF WAY LINES
- SIGHT VISION TRIANGLE - OBJECTS IN THIS AREA MUST BE LESS THAN 36" HIGH ABOVE STREET CURB
- CONCRETE PER DETAILS
- PROPOSED CONCRETE WALK
- EXISTING WETLAND AREA
- # DESIGNATES # OF PARKING SPACES PER ROW

NORTH

SCALE (IN FEET)
1 inch = 30 ft.

CLIENT:
CIRCLE K
GREAT LAKE REGION
935 E. TALLMADGE AVE.
AKRON, OH 44130
(330) 630-6300

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t: 330.239.2699

NO.	DATE	REVISION DESCRIPTION
A	10/18/24	ISSUED FOR PLANNING COMMISSION APPROVAL
B	11/27/24	PER PRE-HEARING COMMENTS
C	02/28/25	REVISED PER CITY COMMENTS
D	04/25/25	REVISIONS PER CITY REVIEW AND ISSUED FOR PLANNING COMMISSION APPROVAL

STATE OF OHIO — ROBERT W. WELLERT — E-59085 — REGISTERED PROFESSIONAL ENGINEER

PROJECT TITLE

PROPOSED NEW CIRCLE K STORE

SITE ADDRESS:

34273 LORAIN RD
N. RIDGEVILLE, OHIO
44039
LORAIN COUNTY

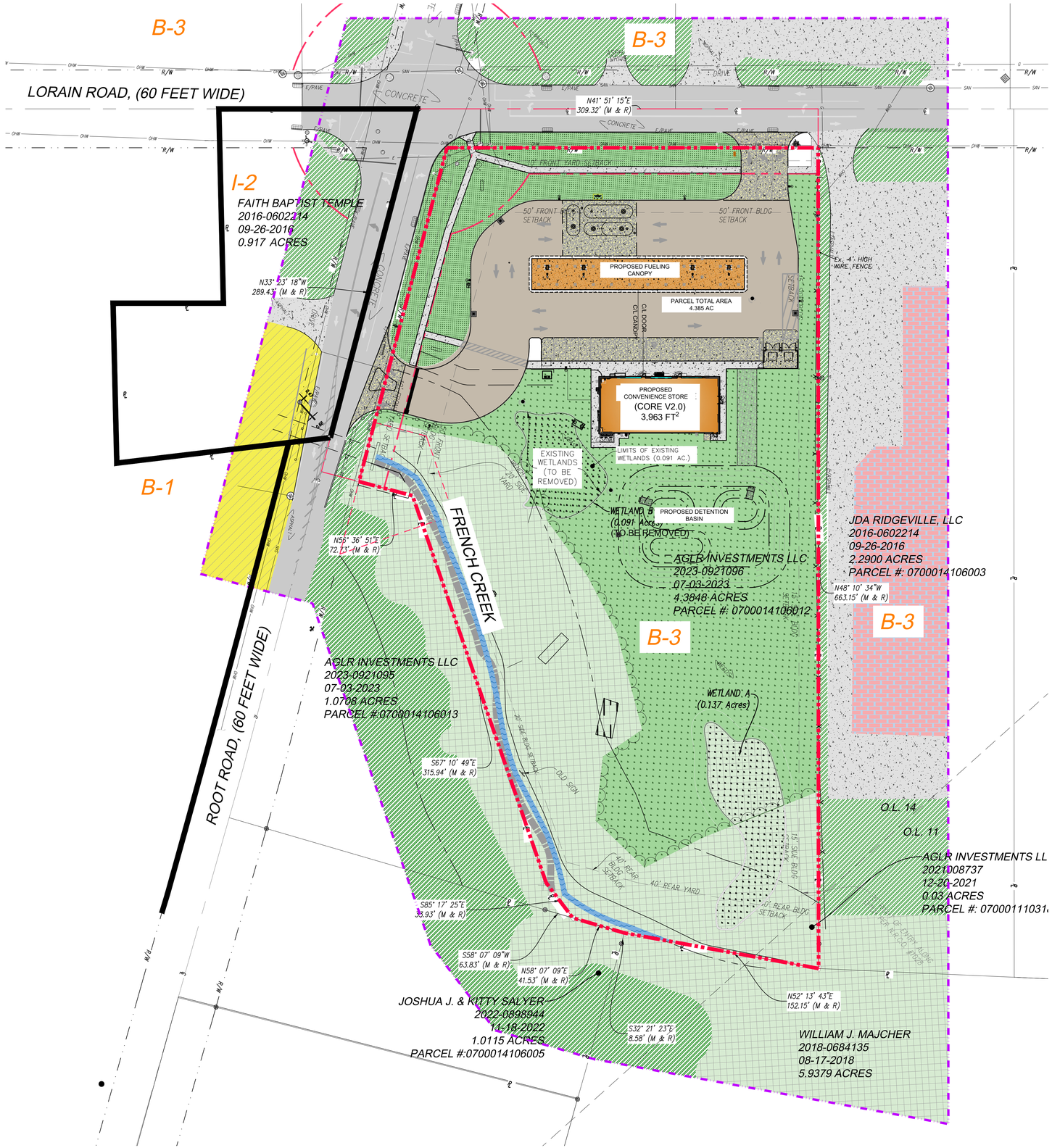
SCALE:	1" = 30'
DATE:	09/05/2024
DESIGNED BY:	RWW
DRAWN BY:	YO
CHECKED BY:	ID
FILE NAME:	230907-C1.0 (Overall).dwg
JOB NUMBER:	230907

DRAWING TITLE:

OVERALL SITE LAYOUT PLAN

SHEET NO:

C1.0



LEGEND

- 100' WIDE BUFFER AREA
- CIRCLE K PROPERTY LINE
- ADJACENT PROPERTY LINES
- ZONE DISTRICT DEMARCATION LIMIT

ZONING DISTRICTS

B-1	NEIGHBORHOOD BUSINESS
B-3	HIGHWAY COMMERCIAL DISTRICT
I-2	LIGHT INDUSTRIAL DISTRICT

NORTH

0 20 40 80
SCALE (IN FEET)
1 inch = 40 ft.

PROPOSED:

- CONC. PADS AND WALK WAYS
- ASPHALT PAVEMENT
- LAWN/LANDSCAPING
- BUILDING
- CANOPY

EXISTING:

- ASPHALT PAVEMENT
- LAWN/ LANDSCAPE
- WOODS
- CONC. PAVEMENT & WALKWAYS
- CREEK
- EXISTING BUILDING

CLIENT:

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STATE OF OHIO
ROBERT W. WELLERT
E-59085
REGISTERED PROFESSIONAL ENGINEER

PROJECT TITLE

PROPOSED NEW CIRCLE K STORE

SITE ADDRESS:

34273 LORAIN RD
N. RIDGEVILLE, OHIO
44039
LORAIN COUNTY

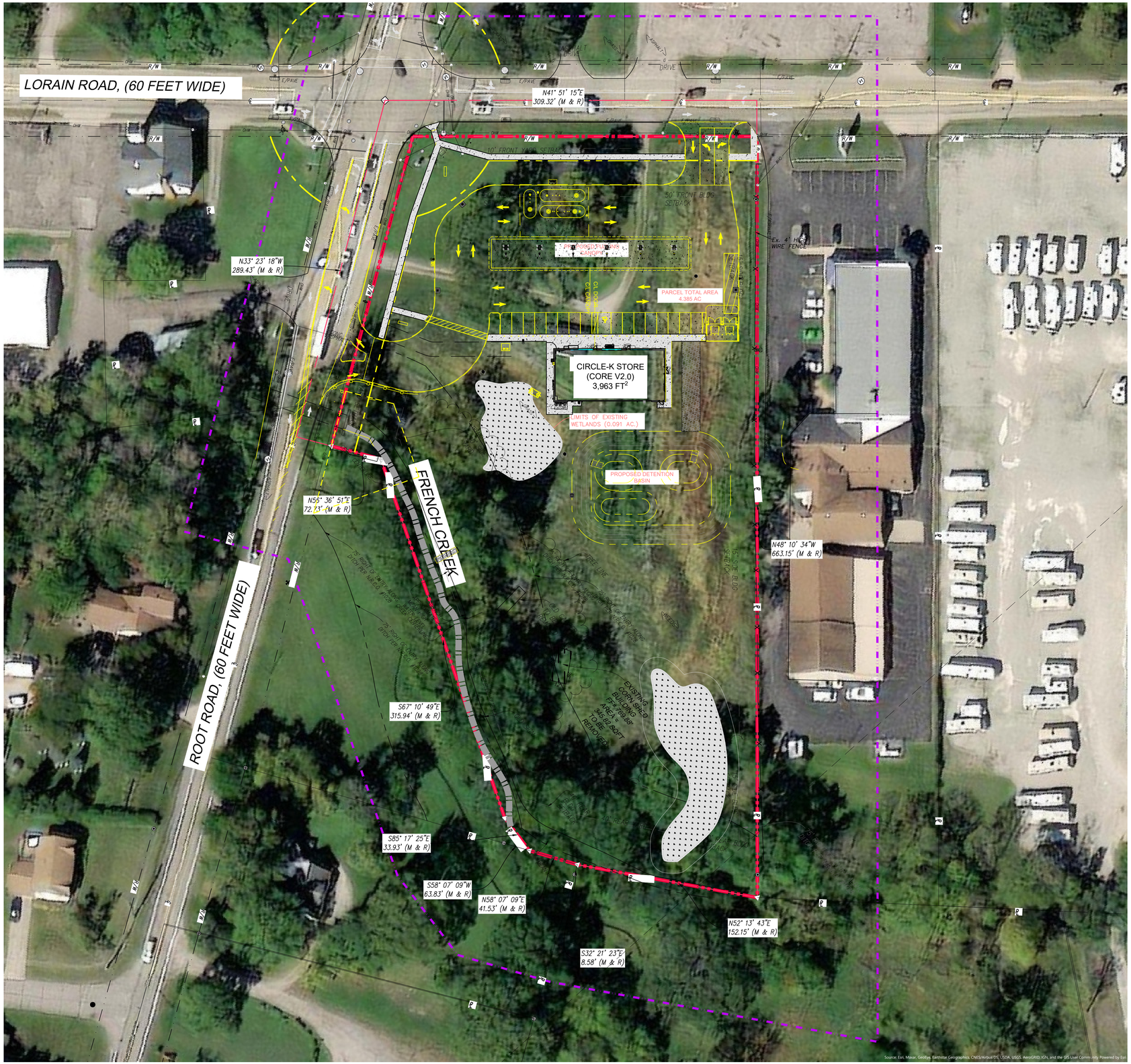
SCALE:	1" = 40'
DATE:	09/05/2024
DESIGNED BY:	ID
DRAWN BY:	YO
CHECKED BY:	ID
FILE NAME:	230907-ZoningMap.dwg
JOB NUMBER:	230907

DRAWING TITLE:

COLORIZED ZONING MAP

SHEET NO:

C1.0A



NORTH

0 20 40 80

SCALE (IN FEET)
1 inch = 40 ft.

LEGEND

- 100' WIDE BUFFER AREA
- CIRCLE K PROPERTY LINE
- ADJACENT PROPERTY LINES

CLIENT:

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STATE OF OHIO
ROBERT W. WELLERT
E-59085
REGISTERED
PROFESSIONAL ENGINEER

PROJECT TITLE

PROPOSED NEW CIRCLE K STORE

SITE ADDRESS:

34273 LORAIN RD
N. RIDGEVILLE, OHIO
44039
LORAIN COUNTY

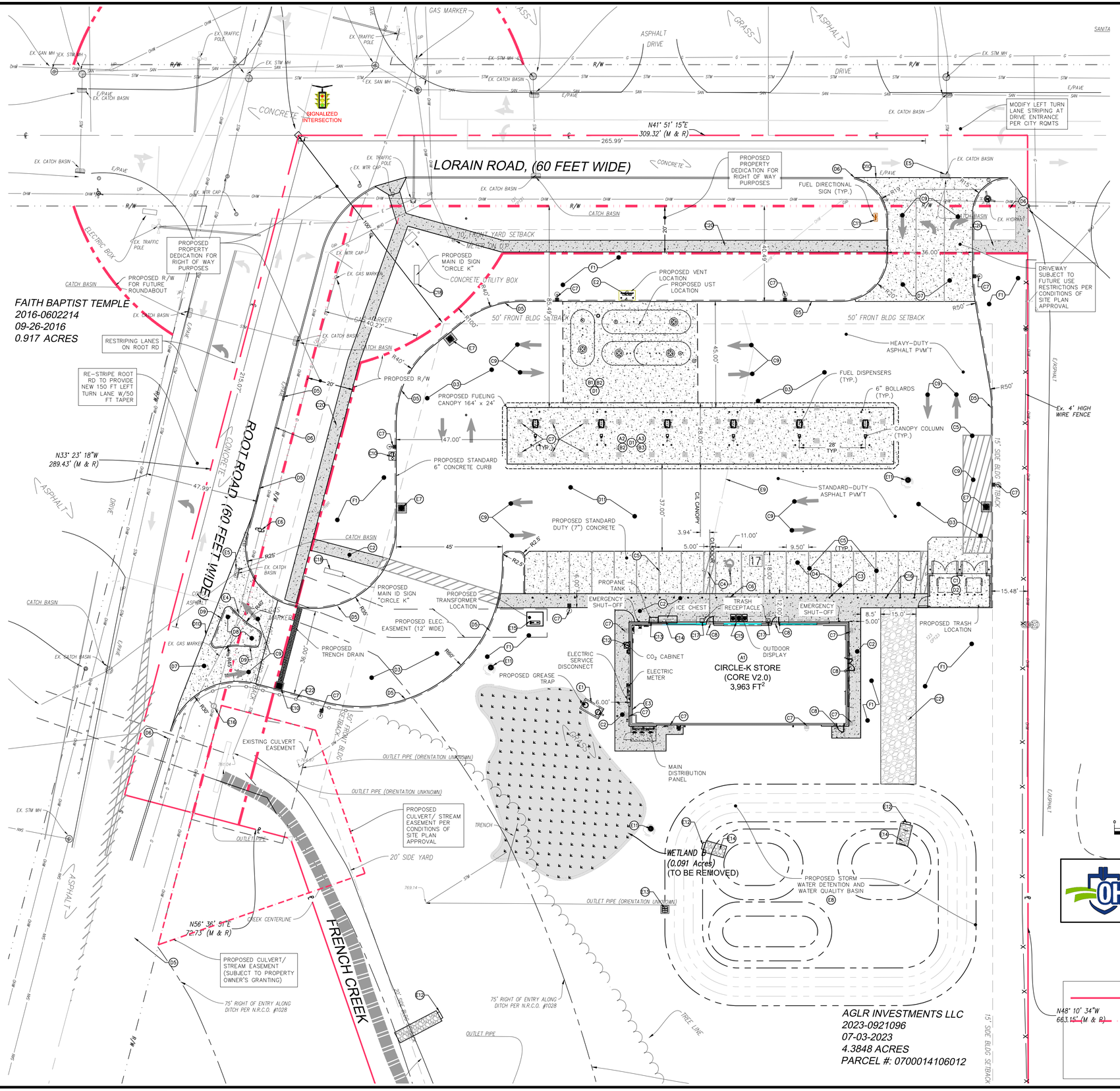
SCALE:	1" = 40'
DATE:	09/05/2024
DESIGNED BY:	ID
DRAWN BY:	ID
CHECKED BY:	ID
FILE NAME:	230907-ZoningMap.dwg
JOB NUMBER:	230907

DRAWING TITLE:

ZONING MAP WITH AERIAL OVERLAY

SHEET NO:

C1.0B



SITE PLAN ITEMIZED NOTES

A. BUILDING AND CANOPY ITEMIZED NOTES:

1. CONSTRUCT CONVENIENCE STORE PER ARCHITECTURAL PLANS AND SPECIFICATIONS.
2. CONSTRUCT NEW CANOPY PER CANOPY CONSTRUCTION PLANS.
3. THE LIGHTING ON THE UNDERSIDE OF THE CANOPY MUST BE FLUSH MOUNTED.

B. TANK/FUEL SYSTEM ITEMIZED NOTES:

1. INSTALL (1) 20,000 GALLON (REG), (1) 20,000 GALLON SPLIT (12K+8K), AND (1) 12,000 GALLON (DIESEL) DOUBLE-WALL FIBERGLASS UNDERGROUND STORAGE TANKS. SEE TANK AND FUEL SYSTEM DRAWINGS (FE AND FG SERIES SHEETS) FOR DETAILS. (BY FUEL CONTRACTOR)
2. THE FOLLOWING CONCRETE WORK TO BE CONSTRUCTED BY THE FUEL CONTRACTOR:
   2.1. CONCRETE PAD UNDER CANOPY
   2.2. CONCRETE PAD ABOVE UNDERGROUND FUEL STORAGE TANKS
3. INSTALL DISPENSER ISLANDS, BOLLARDS, (6) GASOLINE DISPENSERS, E-STOP AND ALL ASSOCIATED PIPING PER FUEL SYSTEM DRAWINGS. (BY FUEL CONTRACTOR).

C. YARD AREA ITEMIZED NOTES:

1. CONSTRUCT TRASH ENCLOSURE. SEE SHEET C6.5.
2. CONSTRUCT CONCRETE WALK PER SITE PLAN AND BUILDING DRAWINGS. SEE SHEET C6.1, DETAIL 5.
3. INSTALL 4" DIAMETER BOLLARD POST. SEE SHEET C6.1, DETAIL 6.
4. PAINT HANDICAPPED SYMBOL AND ACCESS AISLE STRIPING PER APPLICABLE CODES. SEE SHEET C6.1, DETAIL 7.
5. PAINT 4" WIDE STRIPES FOR PARKING SPACES, ADA WALK WAYS AND NO PARKING SPACES. SEE SHEET C6.1, DETAIL 8.
6. INSTALL ACCESSIBILITY SIGNAGE ON BOLLARD. SEE SHEET C6.1, DETAIL 1.
7. CONSTRUCT ALL SITE LIGHTING PER SITE PHOTOMETRIC PLAN PREPARED BY RED LEONARD.
8. CONSTRUCT FROST ENTRY SLAB PER ARCHITECTURAL PLANS.
9. PAINT DIRECTIONAL TRAFFIC ARROWS, LANE DIVIDERS, STOP BAR STRIPING, TRANSVERSE PAVEMENT MARKING, AND "STOP" PAVEMENT MARKINGS.
10. INSTALL AIR UNIT. SEE SHEET C6.4, DETAIL 1.
11. INSTALL DIRECTIONAL SIGN. SEE APPROVED SIGN PACKAGE.
12. OUTSIDE STORAGE: CO2 CABINET
13. OUTSIDE STORAGE: PROPANE TANKS
14. OUTSIDE STORAGE: ICE MERCHANDISER
15. OUTSIDE STORAGE: SEASONAL SALES DISPLAY STANDS.
16. INSTALL (3) 4" DIAMETER REMOVABLE BOLLARD POST. SEE SHEET C6.1, DETAIL XX.
17. INSTALL TRASH RECEPTACLE SUPPLIED BY CIRCLE K.
18. INSTALL MAIN IDENTIFICATION SIGN PER SIGN SUBMITTAL PACKAGE. REFERENCE SIGN MANUFACTURER'S DRAWINGS.
19. INSTALL GUARDRAIL. SEE SHEET 6.6, DETAIL XX.
20. INSTALL SIDEWALK PER CITY OF CITY OF NORTH RIDGEVILLE STANDARD PAV-1.
21. GEOGRID OR STONE STABILIZED ACCESS LANE (15'x70').
22. INSTALL GUIDE RAIL ODOT TYPE

D. PAVING ITEMIZED NOTES:

1. CANOPY APRON TO BE 6" THICK CONCRETE PAVEMENT AND TANK APRON TO BE 8" THICK CONCRETE WITH MAT REINFORCEMENT. SEE FUEL SYSTEM DRAWINGS.
2. INSTALL DUMPSTER PAD PER CONCRETE PAVING SECTION FOR TRUCK AREAS. SEE SHEET C6.0, DETAIL 2.
3. INSTALL HEAVY-DUTY ASPHALT PAVEMENT. SEE SHEET C6.0, DETAIL 8.
4. INSTALL STANDARD DUTY (6") CONCRETE PAVEMENT IN CAR PARKING/SPACES. SEE SHEET C6.0, DETAIL 2.
5. INSTALL 6" ODOT TYPE 6 CONCRETE CURB FOR ON-SITE WORK. SEE SHEET C6.1, DETAIL 2.
6. TRANSITION/TAPER NEW CONCRETE CURB OR PAVEMENT TO MEET EXISTING CURB OR EDGE OF PAVEMENT ELEVATION AND LOCATION. NEW CURB HEIGHT SHALL TRANSITION/TAPER INTO EXISTING CURB HEIGHT OVER A LENGTH 18"-24".
7. INSTALL DRIVE APRON (8") CONCRETE PAVEMENT.SEE SHEET C6.0, DETAIL 2.
8. INSTALL CONCRETE ISLAND PER ODOT ITEM 609 (8" THICK) AND TYPE 3A CURB. CURB AND ISLAND SHALL BE CONSTRUCTED INDEPENDENTLY OF EACH OTHER.
9. INSTALL ODOT TYPE 3A CONCRETE CURB FOR CENTER ISLAND. CURB AND ISLAND SHALL BE CONSTRUCTED INDEPENDENTLY OF EACH OTHER. SEE SHEET C6.1, DETAIL 2.
10. INSTALL DROPPED CURB PER SHEET C6.0 DETAIL 4.
11. INSTALL STANDARD-DUTY ASPHALT PAVEMENT. SEE SHEET C6.0, DETAIL 8.

E. UTILITIES ITEMIZED NOTES:

1. INSTALL GREASE TRAP. SEE SHEET C6.4, DETAIL 2.
2. INSTALL FUEL VENT RISERS. COORDINATE LOCATION WITH FUEL SYSTEM PLANS.
3. INSTALL GREASE TRAP VENT. COORDINATE WITH BUILDING PLUMBING PLANS.
4. EXISTING UTILITY POLE AND OVERHEAD WIRES TO BE RELOCATED. CONTRACTOR SHALL COORDINATE FINAL LOCATION OF UTILITY POLE WITH THE UTILITY PROVIDER.
5. EXISTING CATCH BASIN TO BE REPLACE/ADJUSTED TO GRADE PER CITY REQUIREMENTS.
6. APPROXIMATE LOCATION OF RELOCATED UTILITY POLE AND OVERHEAD WIRES. CONTRACTOR SHALL COORDINATE FINAL LOCATION OF UTILITY POLE WITH THE UTILITY PROVIDER.
7. INSTALL ODOT CB# 2-3 PER DETAIL 2, SHEET C6.2.
8. INSTALL ABOVE-GROUND STORMWATER DETENTION AND WATER QUALITY BASIN.
9. EXISTING OVERHEAD WIRES TO BE REMOVED.
10. INSTALL ODOT CB# 2-2B PER DETAIL 3, SHEET C6.2.
11. INSTALL ODOT MH# 3. SEE DETAIL 1, SHEET C6.2.
12. INSTALL ODOT HALF-HEADWALL. SEE DETAIL 1, SHEET C6.4.
13. INSTALL OUTLET CONTROL STRUCTURE FOR STORMWATER DETENTION SYSTEM. SEE UTILITY PLAN, SHEET C3.0 FOR FURTHER DETAILS.
14. INSTALL OUTLET PROTECTION (ROCK RIP RAP) ODOT TYPE C (18" THICK) OVER GEOTEXTILE LINER. (10' L X 5' W).
15. INSTALL ELECTRICAL TRANSFORMER AND CONCRETE PAD PER ELECTRICAL COMPANY REQUIREMENTS.
16. RE-SET OR INSTALL NEW POLE TO ACCOMMODATE GRADING ACTIVITIES

F. LANDSCAPING ITEMIZED NOTES:

1. INSTALL LANDSCAPING OR SEED – SEE LANDSCAPING PLAN

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B	04/25/25	REVISIONS PER CITY REVIEW AND ISSUED FOR PLANNING COMMISSION APPROVAL

STATE OF OHIO
ROBERT W. WELLERT
E-59085
REGISTERED PROFESSIONAL ENGINEER

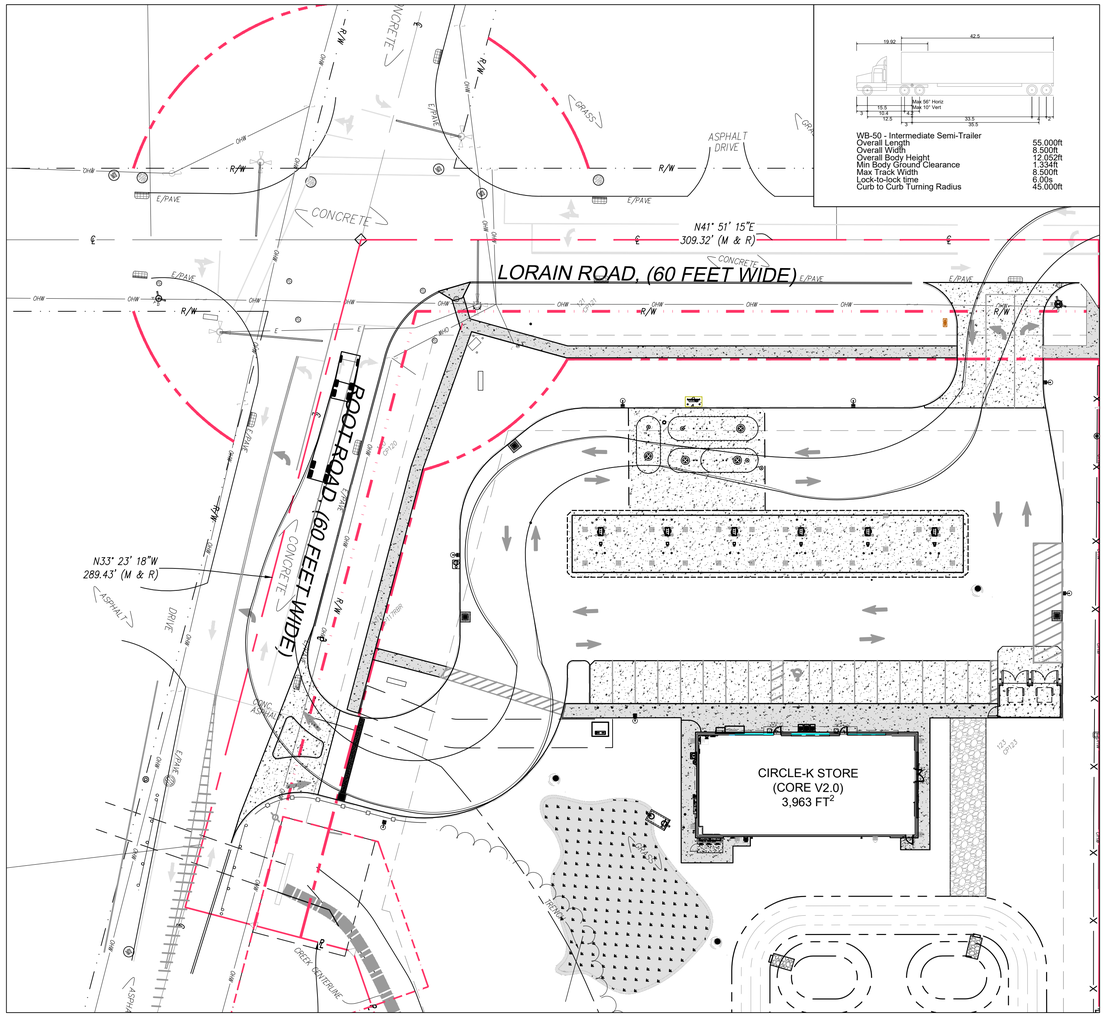
PROJECT TITLE
PROPOSED NEW CIRCLE K STORE

SITE ADDRESS:
34273 LORAIN RD
N. RIDGEVILLE, OHIO
44039
LORAIN COUNTY

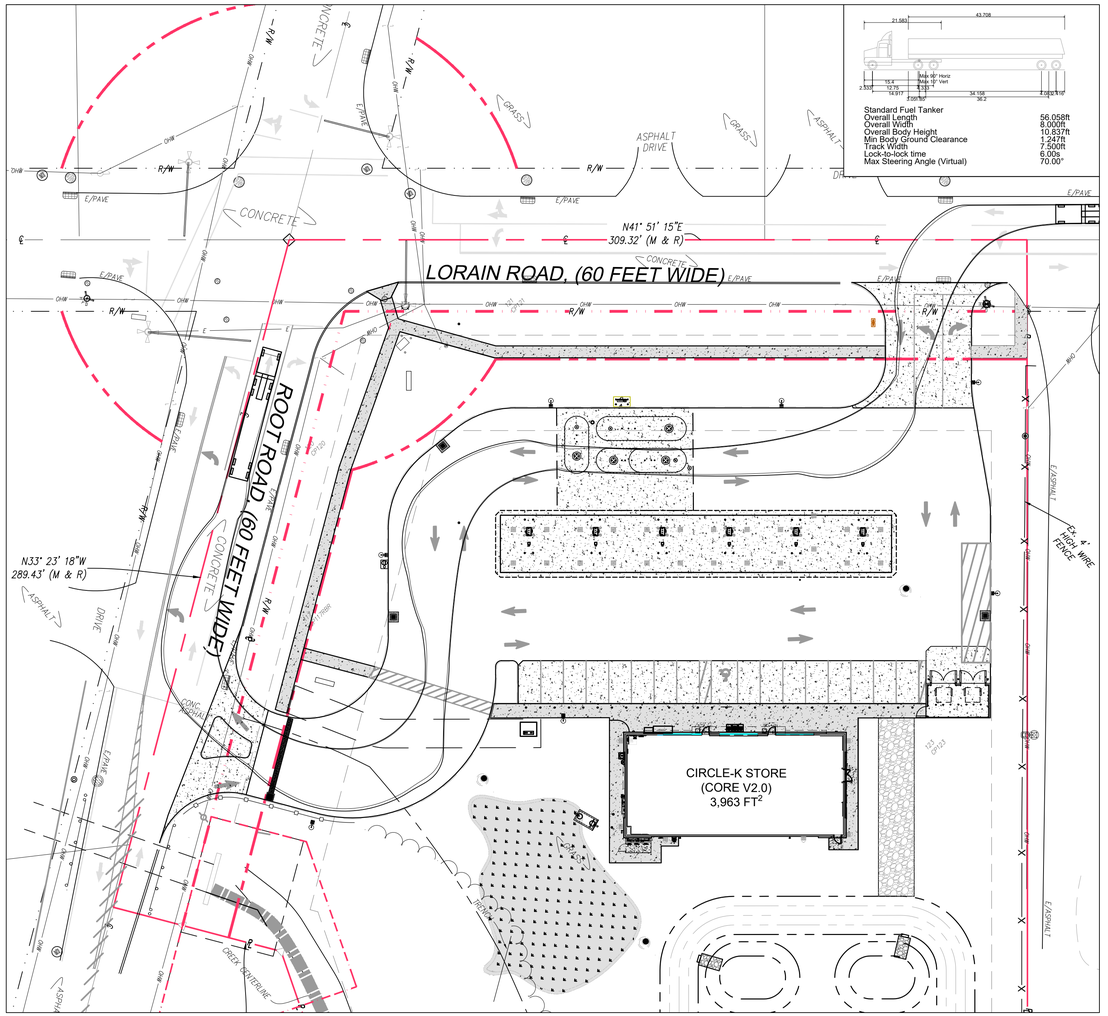
SCALE:	1" = 20'
DATE:	09/05/2024
DESIGNED BY:	RWW
DRAWN BY:	YO
CHECKED BY:	ID
FILE NAME:	230907-C1.1 (Detailed).dwg
JOB NUMBER:	230907

DRAWING TITLE:
DETAILED SITE LAYOUT PLAN

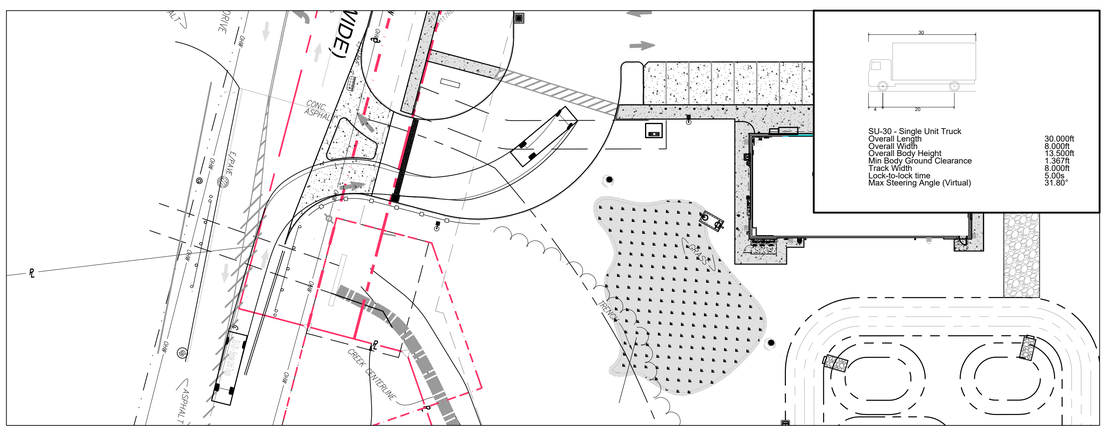
SHEET NO:
C1.1



1 C1.2 **WB-50 SEMI TRAILER VEHICLE MOVEMENTS**
SCALE: 1" = 30'



2 C1.2 **STANDARD FUEL TRANSPORT VEHICLE MOVEMENTS**
SCALE: 1" = 30'



3 C1.2 **SINGLE UNIT TRUCK SU-30 VEHICLE MOVEMENT**
SCALE: 1" = 30'

NORTH

0 15 30 60
SCALE (IN FEET)
1 inch = 30 ft.

PROPERTY LINES
RIGHT OF WAY LINES
CONCRETE PER DETAILS
PROPOSED CONCRETE WALK

CLIENT:

CIRCLE K
GREAT LAKE REGION
935 E. TALLMADGE AVE.
AKRON, OH 44130
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STATE OF OHIO
ROBERT W. WELLERT
E-59085
REGISTERED PROFESSIONAL ENGINEER

PROJECT TITLE

PROPOSED NEW CIRCLE K STORE

SITE ADDRESS:

34273 LORAIN RD
N. RIDGEVILLE, OHIO
44039
LORAIN COUNTY

SCALE:	AS NOTED
DATE:	09/24/2024
DESIGNED BY:	ID
DRAWN BY:	ID
CHECKED BY:	ID
FILE NAME:	230907-TT.dwg
JOB NUMBER:	230907

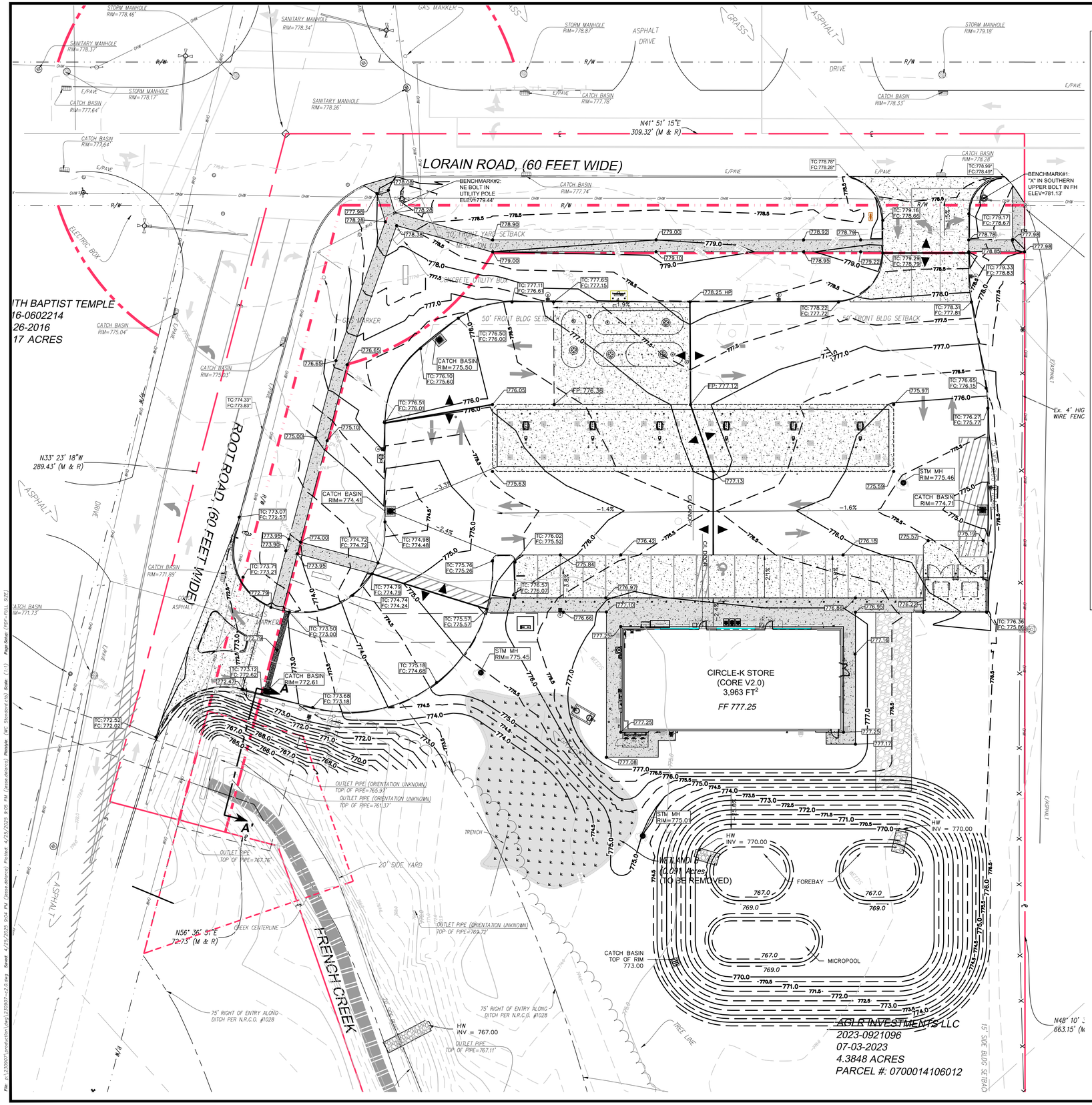
DRAWING TITLE:

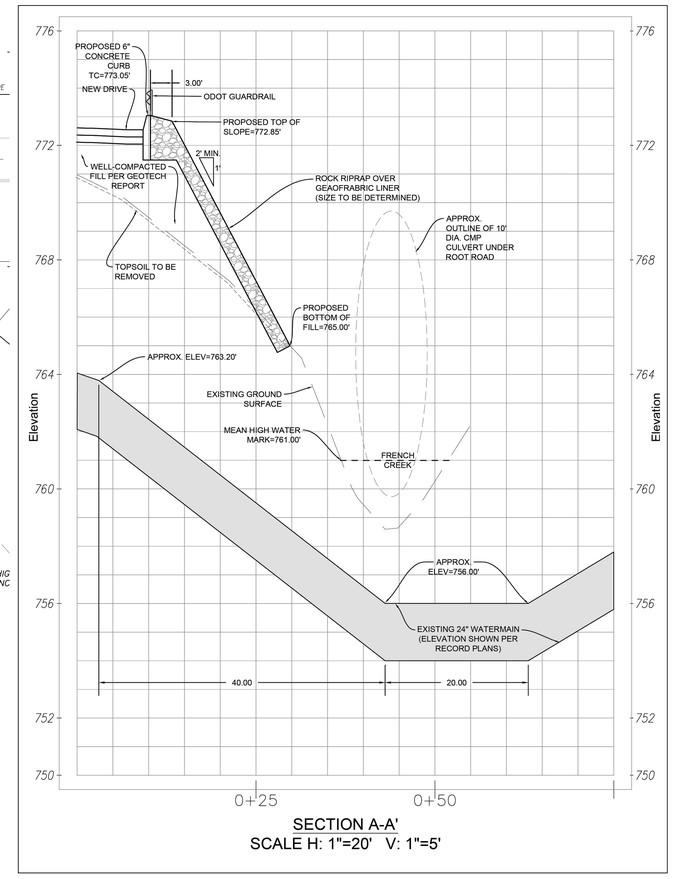
VEHICLE CIRCULATION PLAN

SHEET NO:

C1.2

File: J:\230907\production\dwg\230907-TT.dwg Saved: 4/25/2025 12:59 PM (wellert) Plotted: 4/25/2025 4:28 PM (wellert) Plotstyle: (WC Standard.ctb) Scale: (1:1) Page Setup: (.....)





SECTION A-A'
SCALE H: 1"=20' V: 1"=5'

SCALE (IN FEET)
1 inch = 20 ft.

GRADING LEGEND:

TC – TOP OF CURB
FC – PAVEMENT ELEVATION AT FACE OF CURB
T/ISL – TOP OF ISLAND
PV – TOP PAVEMENT (ASPHALT/CONC) ELEV
FG – FINISH GRADE ELEVATION
TW – TOP OF WALK ELEVATION
M.E.G. – MATCH EXISTING GRADE

EXISTING ELEVATIONS SHOWN +0000.00
FINISH ELEVATIONS SHOWN
ESTIMATED ELEVATIONS SHOWN
EXISTING CONTOURS SHOWN
PROPOSED CONTOURS SHOWN
PROPOSED RIDGE LINE
SLOPE SURFACE TO DRAIN

GRADING GENERAL NOTES:

1. SEE SITE PLAN AND C6.6 FOR ADDITIONAL NOTES.
2. DEVELOPMENT PLANS ARE BASED ON THE ALTA/NSPS LAND TITLE SURVEY BY WELLERT CORPORATION, DATED MARCH, 2024.
3. PROPOSED PAVEMENT AND BUILDING AREAS ARE TO BE PROOF-ROLLED IMMEDIATELY PRIOR TO CONSTRUCTION. ANY AREAS FOUND TO BE "SOFT" OR "SPONGY" ARE TO BE OVER-EXCAVATED TO FIRM EARTH AND BACKFILLED PER SPECIFICATIONS.
4. ALL CONSTRUCTION SHALL COMPLY WITH CIRCLE K AND THE LOCAL MUNICIPALITY'S STANDARDS AND ODOT SPECIFICATIONS. ALL CONSTRUCTION WITHIN A DOT RIGHT OF WAY SHALL COMPLY WITH ALL DEPARTMENT OF TRANSPORTATION STANDARDS.
5. CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE LOCAL MUNICIPALITIES TO SECURE PERMITS AND FEES FOR STREET CUTS AND CONNECTIONS TO EXISTING UTILITIES.
6. VERIFY REQUIRED SPOT ELEVATIONS/GRADING IN THE VICINITY OF THE BUILDINGS WITH THE ARCHITECTURAL PLANS.
7. ALL EXCAVATION AND GRADING CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH THE GEOTECHNICAL REPORT PREPARED BY GPD GROUP DATED 04/10/2024.
8. ALL STORM SEWERS WITHIN R/W SHALL BE PER CITY OF NORTH RIDGEVILLE SPECIFICATIONS.
9. ALL UTILITY WORK WITHIN R/W SHALL BE PER CITY OF NORTH RIDGEVILLE SPECIFICATIONS.

BENCHMARKS

ELEVATIONS ARE PER ODOT VRS (CORS SYSTEM) NAVD 88

BENCHMARKS:

BM #1	"X" IN SOUTHERN UPPER BOLT IN FIRE HYDRANT ELEVATION: 781.13'
BM #2	NORTHEAST BOLT IN UTILITY POLE ELEVATION: 786.24'

ADA COMPLIANCE NOTE

IN ACCORDANCE WITH THE REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT (ADA) OF 1990 AND THE ADA AMENDMENTS ACT OF 2008, ALL RAMPS, CURB RAMPS AND SIDEWALKS SHALL BE CONSTRUCTED IN FULL COMPLIANCE TO THE DOJ 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN (2010 STANDARDS), INCLUDING ALL SUPPLEMENTS.

SLOPE CONSTRAINTS:
- ACCESSIBLE PARKING SPACE AND AISLE–1:48 (2.08%)
- ACCESSIBLE ROUTE– RUNNING SLOPE NOT TO EXCEED 1:20 (5.0%).
- CROSS SLOPE–NOT TO EXCEED 1:48 (2.08%).
- CURB RAMPS AND RAMPS–RUNNING SLOPE NOT TO EXCEED 1:12 (8.33%)
- CURB RAMP FLARED SIDES–NOT TO EXCEED 1:10 (10.0%)

OHIO811.org Before You Dig

CLIENT:

CIRCLE K
GREAT LAKE REGION
935 E. TALLMADGE AVE.
AKRON, OH 44130
(330) 630-6300

CONSULTANT:

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STATE OF OHIO
ROBERT W. WELLERT
E-58085
REGISTERED PROFESSIONAL ENGINEER

PROJECT TITLE

PROPOSED NEW CIRCLE K STORE

SITE ADDRESS:

34273 LORAIN RD
N. RIDGEVILLE, OHIO
44039
LORAIN COUNTY

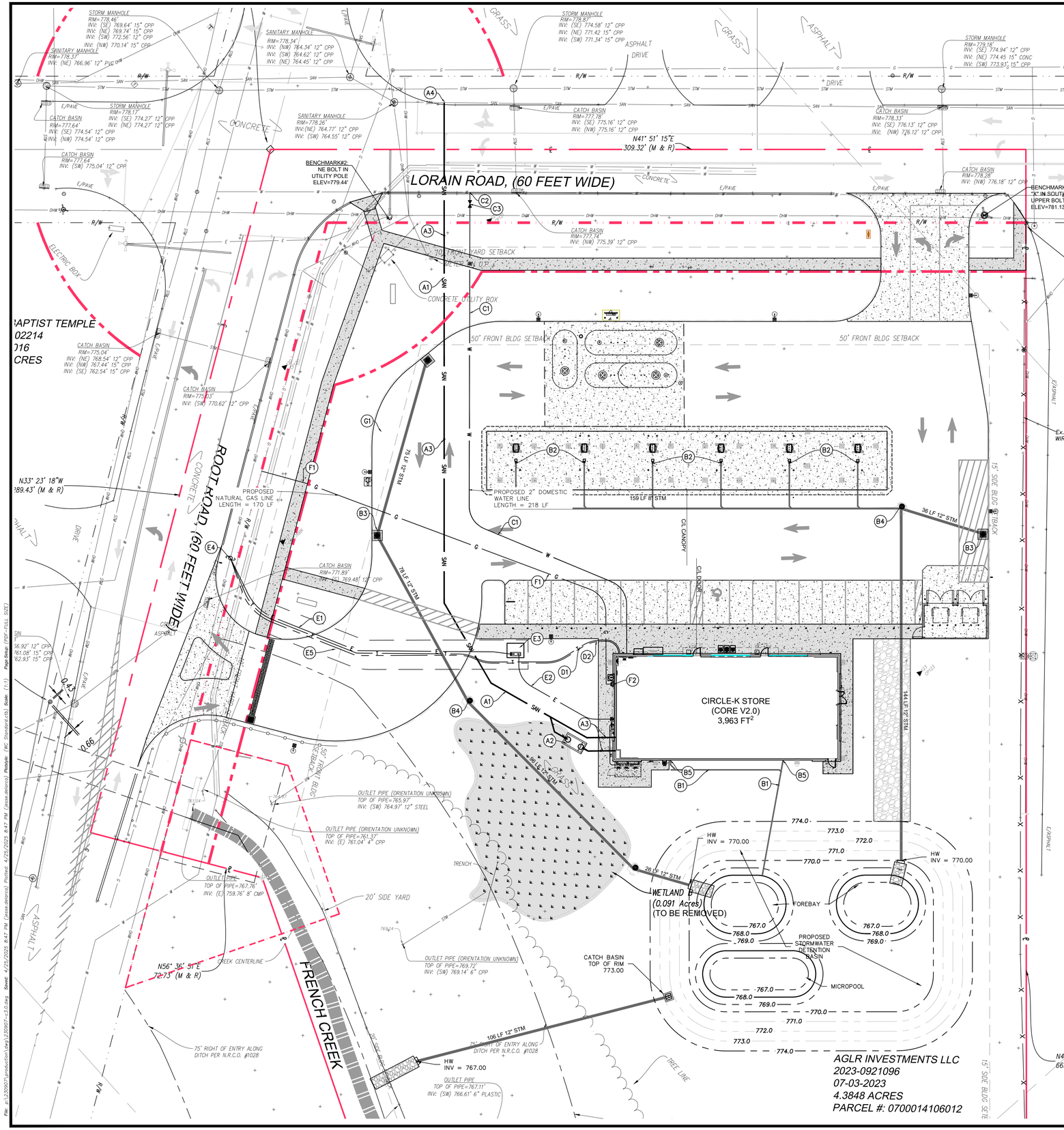
SCALE:	1" = 20'
DATE:	09/05/2024
DESIGNED BY:	ID
DRAWN BY:	YO
CHECKED BY:	ID
FILE NAME:	230907-C2.0.dwg
JOB NUMBER:	230907

DRAWING TITLE:

PRELIMINARY SITE GRADING PLAN

SHEET NO:

C2.0



UTILITY PLAN ITEMIZED NOTES

A. ITEMIZED SANITARY SEWER NOTES:

A1. INSTALL 6" PVC SANITARY LATERAL AT 1.0% MIN SLOPE FROM BUILDING TO AN EXISTING SANITARY SEWER ON LORAIN ROAD.

A2. INSTALL 1000 GALLON GREASE TRAP. SEE DETAIL 1, SHEET C6.1

A3. INSTALL SANITARY SEWER CLEANOUT PER DETAIL 8, SHEET C6.3. MAXIMUM SPACING SHALL BE 100 FEET.

A4. NEW SANITARY TAP TO EXISTING SANITARY LINE PER CITY OF NORTH RIDGEVILLE REQUIREMENTS. CONTRACTOR SHALL VERIFY SEWER ELEVATION AND REPORT BACK TO ENGINEER OF ANY DISCREPANCIES.

B. ITEMIZED STORM SEWERS NOTES:

B1. INSTALL 6" PVC STORM SEWER LATERAL FOR BUILDING ROOF DRAINS AT 1.0% SLOPE (MIN.).

B2. INSTALL 6" PVC STORM SEWER LATERAL FOR CANOPY DRAINS AT 1.0% SLOPE (MIN.).

B3. INSTALL ODOT CATCH BASIN No. 2-3. SEE DETAIL 2 ON SHEET C6.2.

B4 INSTALL ODOT MH #3 (48" DIA.) SEE DETAIL 1, SHEET C6.2.

B5. INSTALL STORM SEWER CLEANOUTS PER DETAIL 8, SHEET C6.3.

B6. INSTALL ODOT CATCH BASIN No. 2-2B. SEE DETAIL 3 ON SHEET C6.2.

C. ITEMIZED WATERLINE NOTES:

C1. INSTALL 2" TYPE "K" COPPER WATER SERVICE LINE. SEE BUILDING DRAWINGS FOR TIE-IN POINT.

C2. CONNECT TO WATER MAIN PER CITY OF NORTH RIDGEVILLE WATER DEPARTMENT REQUIREMENTS. CONTRACTOR TO COORDINATE THE TIE-IN LOCATION AT THE WATER MAIN WITH THE CITY OF NORTH RIDGEVILLE WATER DEPARTMENT.

C3. INSTALL CURB STOP PER CITY OF NORTH RIDGEVILLE WATER DEPARTMENT REQUIREMENT.

D. ITEMIZED TELEPHONE AND CABLE NOTES:

D1. INSTALL UNDERGROUND CONDUIT FOR TELEPHONE LINES FROM EXISTING UTILITY POLE TO BUILDING (APPROXIMATE ROUTE SHOWN), TO SATISFY USAGE REQUIREMENTS OF 20 PAIR ANALOG LINES. SEE BUILDING DRAWINGS FOR TIE IN POINT.

D2. INSTALL CABLE LINES (DATA FOR INTERNET) FROM NEW UTILITY POLE TO BUILDING.

E. ITEMIZED ELECTRIC NOTES:

E1. INSTALL UNDERGROUND ELECTRIC SERVICE LINE FROM NEW UTILITY POLE TO TRANSFORMER (APPROXIMATE ROUTE SHOWN). CONSULT ELECTRIC COMPANY FOR ELECTRIC TRANSFORMER DETAILS.

E2. INSTALL UNDERGROUND ELECTRIC SERVICE LINE FROM ELECTRIC TRANSFORMER TO BUILDING (APPROXIMATE ROUTE SHOWN). SEE BUILDING DRAWINGS FOR TIE-IN POINT. CONSULT ELECTRIC COMPANY AND ARCHITECTURAL PLANS FOR SIZE, LOCATION AND TYPE.

E3. INSTALL NEW ELECTRIC TRANSFORMER AND PAD PER ELECTRIC PROVIDER REQUIREMENTS.

E4. INSTALL NEW UTILITY POLE AND OVERHEAD SERVICE LINES FOR NEW BUILDING SERVICE DROPS. CONTRACTOR SHALL COORDINATE WITH POWER PROVIDER.

E5. EXISTING UTILITY POLE AND OVERHEAD WIRES ARE TO BE RELOCATED NEAR THE PROPERTY LINE. CONTRACTOR SHALL COORDINATE RELOCATION WORK WITH THE POWER PROVIDER.

F. ITEMIZED GAS NOTES:

F1. INSTALL NATURAL GAS SERVICE LINE FROM BUILDING TO EXISTING SERVICE LINE (APPROXIMATE ROUTE SHOWN). SEE BUILDING DRAWINGS FOR TIE-IN POINT. CONSULT GAS COMPANY FOR SIZE, LOCATION AND TYPE.

F2. INSTALL NATURAL GAS METER PER GAS PROVIDER REQUIREMENTS.

G. ITEMIZED AIR/VACUUM NOTES:

G1. INSTALL AIR UNIT FOR AUTO AREA AND PROVIDE POWER. SEE SHEET C6.2, DETAIL 1. PROVIDE POWER TO UNIT, SEE SITE ELECTRICAL PLAN.

UTILITY PLAN GENERAL NOTES

•SEE SHEET C6.7 FOR GENERAL SITE CONSTRUCTION NOTES

A. GENERAL SANITARY SEWER NOTES:

1. ALL SANITARY SEWER LATERALS DESIGNATED "PVC" SHALL BE ASTM D3034, SDR 35, WITH RUBBER GASKET JOINTS,
2. ROOF DRAINS, FOUNDATION DRAINS, AND OTHER CLEAN WATER CONNECTIONS TO THE SANITARY SEWER ARE PROHIBITED.
3. SANITARY SEWER LATERALS ARE SHOWN ON THESE PLANS TO FACE OF BUILDINGS. SITE CONTRACTOR SHALL INCLUDE IN HIS PROPOSAL THE COST OF LATERAL CONSTRUCTION TO FIVE (5) FEET FROM THE FACE OF BUILDING.
4. PROVIDE CLEANOUTS FOR SANITARY SEWERS AS INDICATED ON PLANS PER DETAIL SHEET. MAXIMUM SPACE IS 100' APART.

B. GENERAL STORM SEWERS NOTES:

1. STORM SEWERS DESIGNATED "PVC" ASTM D3034, SDR 35, WITH RUBBER GASKET JOINTS.
2. STORM SEWERS DESIGNATED "HDPE" SHALL BE HIGH DENSITY POLYETHYLENE, SMOOTH INTERIOR, CORRUGATED EXTERIOR, AS MANUFACTURED BY ADVANCED DRAINAGE SYSTEMS, INC, OR EQUAL. PIPE SHALL CONFORM TO AASHTO M 294, AND ASTM D 2321 WITH WATER-TIGHT JOINTS CONFORMING TO ASTM D 3212.
3. PROVIDE CLEANOUTS FOR STORM SEWERS AS INDICATED ON PLANS PER DETAIL SHEET.
4. GRATES SHALL BE BICYCLE SAFE/FRIENDLY GRATES.
5. GRATES IN PEDESTRIAN WALKWAY SHALL BE ADA FRIENDLY GRATES.
6. STORM STRUCTURES (ON-SITE) – FRAME AND COVER:
   ODOT CB #2-2B & #2-3 (HEAVY-DUTY):
   -EAST JORDAN 5110M3 OR EQUAL
7. ALL STORM SEWERS WITHIN R/W SHALL BE PER CITY OF NORTH RDGEVILLE SPECIFICATIONS.
8. ALL UTILITY WORK WITHIN R/W SHALL BE PER CITY OF NORTH RDGEVILLE SPECIFICATIONS.
9. STORM SEWERS DESIGNATED "D.I.P." SHALL BE DUCTILE IRON PIPE AND SHALL CONFORM TO A.W.W.A. STANDARDS. PIPE SHALL CONFORM TO AASHTO M 294, AND ASTM D 2321 WITH WATER-TIGHT JOINTS CONFORMING TO ASTM D 3212.
10. DUCTILE IRON PIPE SHALL MEET THE REQUIREMENTS OF AWWA C151 (ANSI A21.51). THE MINIMUM PIPE THICKNESS SHALL BE CLASS 52 AS PER AWWA C150 (ANSI A21.50). PIPE JOINTS SHALL BE BOLTED MECHANICAL OR PUSH-ON RUBBER GASKETED MEETING THE REQUIREMENTS OF AWWA C111 (ANSI A21.11). ALL NUTS, BOLTS, AND WASHERS USED ON MECHANICAL JOINT PIPE FITTINGS SHALL BE COR-BLUE AND THE FASTENERS SHALL BE FIELD COATED WITH PIPE JOINT MASTIC OR AN APPROVED CORROSION PROTECTIVE SPRAY PAINT (BITUMINOUS BASE NON-TOXIC UNDERCOAT SPRAY PAINT) WHEN INSTALLED.
11. DUCTILE IRON PIPE FITTING SIZES 3" THROUGH 24" SHALL MEET THE REQUIREMENTS OF AWWA C153 (ANSI A21.53) PRESSURE CLASS 350 OR AWWA C110 (ANSI A21.10) PRESSURE CLASS 350. ALL FITTINGS SHALL BE PROVIDED WITH A BOLTED MECHANICAL OR PUSH-ON RUBBER GASKETED JOINT MEETING THE REQUIREMENTS OF AWWA C111 (ANSI A21.11). ALL FITTINGS SHALL BE CONSTRUCTED OF DUCTILE IRON.

C. GENERAL WATERLINE NOTES:

1. WATER SERVICE LINE SHALL BE 2" (MIN) TYPE "K" COPPER. REQUIREMENT IS 47 GPM AND CAN NOT EXCEED 80 PSI STATIC WITHIN BUILDING.
2. WATER SERVICE PIPE FROM THE WATER MAIN TO BUILDING SHALL NOT BE LESS THAN 4 FEET FROM THE ESTABLISHED GRADE.
3. BACKFLOW DEVICE REQUIRED ON ALL SERVICE CONNECTIONS. THE BACKFLOW PREVENTER SHALL BE TESTABLE AND APPROVED BY THE CITY OF NORTH RDGEVILLE WATER DEPARTMENT.
4. ALL WATERLINES AND APPURTENANCES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS ESTABLISHED BY THE LOCAL AUTHORITY AND THE OHIO EPA.
5. ANY EXISTING HYDRANTS, VALVES, VALVE BOXES, METER PITS, SERVICE LINES, CURB BOXES OR WATER MAINS THAT ARE DAMAGED OR MUST BE ADJUSTED AND/OR MOVED, MUST BE REPAIRED, ADJUSTED, MOVED AND/OR REPLACED AT THE CONTRACTOR'S EXPENSE.
6. MUST MAINTAIN A 18" MINIMUM VERTICAL CLEARANCE FROM EDGE OF ALL WATER MAIN PIPE TO EDGE OF ALL PROPOSED STORM SEWERS AND/OR INLET LEAD PIPE WHERE THEY CROSS.
7. A 10.0' MINIMUM HORIZONTAL CLEARANCE MUST BE MAINTAINED FROM THE EDGE OF THE WATER MAIN PIPE TO THE EDGE OF THE SANITARY SEWER PIPE.
8. AN 18" MINIMUM VERTICAL CLEARANCE MUST BE MAINTAINED FROM THE EDGE OF ALL WATER MAIN PIPE TO THE EDGE OF ALL SANITARY SEWER PIPE WHERE THEY CROSS.
9. A 4.0' MINIMUM HORIZONTAL CLEARANCE MUST BE MAINTAINED FROM THE EDGE OF THE WATER MAIN PIPE TO THE EDGE OF THE STORM SEWER PIPE.
10. INSPECTION SHALL BE PERFORMED BY THE CITY OF NORTH RIDGEVILLE UTILITIES DEPARTMENT.

D. GENERAL TELEPHONE AND CABLE NOTES:

1. CONTRACTOR TO COORDINATE INSTALLATION OF UNDERGROUND DATA AND COMMUNICATION SERVICES WITH THE PHONE AND CABLE COMPANIES.
2. SEE CERTIFIED BUILDING PLANS FOR SITE REQUIREMENTS.

E. GENERAL ELECTRIC NOTES:

1. CONTRACTOR TO COORDINATE INSTALLATION OF UNDERGROUND ELECTRIC SERVICES WITH THE OHIO EDISON COMPANY.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TRENCHING, BEDDING AND BACKFILLING ACTIVITIES, INSTALLATION OF ALL CONDUIT, PLACEMENT OF PULL WIRES WITHIN THE SITE AND GROUNDING.
3. REFERENCE BUILDING CONSTRUCTION PLANS FOR THE EXACT LOCATION AND NUMBER OF BUILDING AND SECONDARY SERVICE CONNECTIONS. THE NUMBER AND SIZE OF SECONDARY CONDUITS SHALL BE AS INDICATED ON THE PLANS IN SERVICE CONDUIT DETAILS. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL DRAWINGS AND SHALL INFORM THE PROJECT ARCHITECT OF ANY CONFLICTS OR DISCREPANCIES.
4. ALL CONDUIT SHALL BE INSTALLED USING A MINIMUM OF 3.0 FEET OF COVER AND SHALL INSTALL EARLY WARNING DETECTION TAPE ABOVE ALL ELECTRIC SERVICE LINES.
5. THE COMPLETED INSTALLATION SHALL HAVE A FINAL INSPECTION BY ELECTRIC COMPANY PRIOR TO INSTALLATION OF THE TRANSFORMER.
6. ALL EQUIPMENT AND WORK SHALL CONFORM WITH THE NATIONAL ELECTRIC CODE AND APPLICABLE UNDERWRITER'S AND GOVERNMENTAL BUILDING CODES AND POWER COMPANY.
7. COORDINATE THE SCOPE AND RESPONSIBILITY OF ALL WORK WITH POWER COMPANY PRIOR TO BIDDING PROJECT OBTAIN INSTALLATION REQUIREMENTS.
8. INSTALL CONDUITS AND WIRE PER ELECTRICAL SITE PLAN BY OTHERS. POWER REQUIRED FOR SIGNS, BUILDINGS, LIGHTING FUEL SYSTEM VACUUMS AND AIR PEDESTAL.

F. GENERAL GAS NOTES:

1. CONTRACTOR TO COORDINATE INSTALLATION OF NATURAL GAS SERVICE WITH THE COLUMBIA GAS COMPANY.
2. SEE CERTIFIED BUILDING PLANS FOR SITE NATURAL GAS REQUIREMENTS.

NORTH

SCALE (IN FEET)
1 inch = 20 ft.

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BENCHMARKS

ELEVATIONS ARE PER ODOT VRS (CORS SYSTEM) NAVD 88

BENCHMARKS:

BM #1 "X" IN SOUTHERN UPPER BOLT IN FIRE HYDRANT
ELEVATION: 781.13'

BM #2 NORTHEAST BOLT IN UTILITY POLE
ELEVATION: 786.24'

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PROJECT TITLE

PROPOSED NEW
CIRCLE K STORE

SITE ADDRESS:

34273 LORAIN RD
N. RIDGEVILLE, OHIO
44039
LORAIN COUNTY

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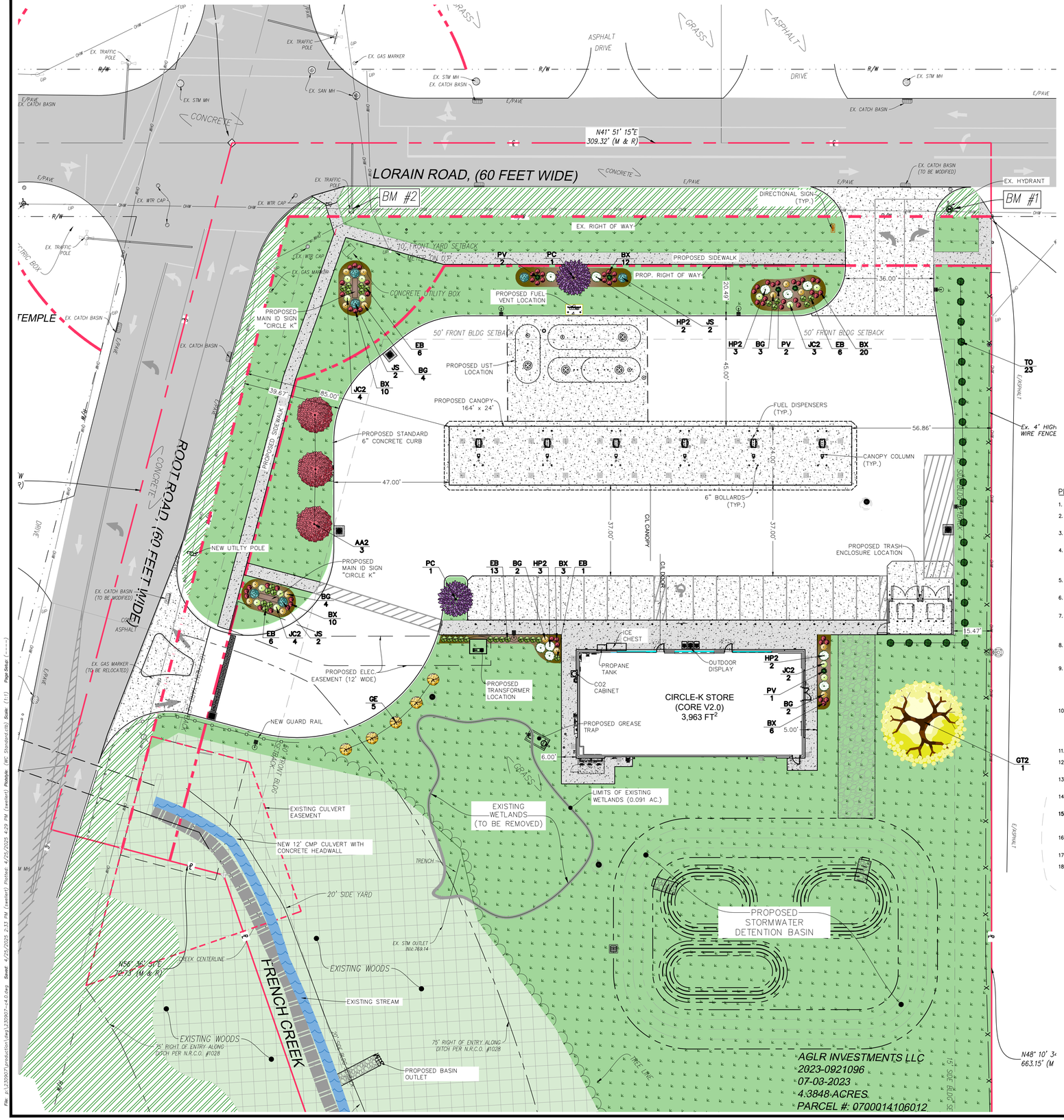
FILE NAME:	230907-C3.0.dwg
JOB NUMBER:	230907

DRAWING TITLE:

PRELIMINARY SITE
UTILITY PLAN

SHEET NO:

C3.0



PLANT SCHEDULE

SYMBOL	CODE	BOTANICAL / COMMON NAME	SIZE	CONTAINER	HEIGHT	SPREAD	QTY
TREES							
	AA2	Acer x freemanii 'Armstrong' Armstrong Freeman Maple	2" Cal.	Pot	45'	15'	3
	GE	Ginkgo biloba 'Blagon' Goldspire Maidenhair Tree	5 gal.	Pot	15'	5'	5
	GT2	Gleditsia triacanthos inermis 'Suncole' Sunburst® Honey Locust	2" Cal.	B&B	40'	35'	1
	JS	Juniperus scopulorum 'Wichita Blue' Wichita Blue Juniper	4" Cal.	B&B	10'	4'	6
	PC	Prunus cerasifera 'Atropurpurea' Purple-leaf Plum	10 gal.	Pot	20'	15'	2
	TO	Thuja occidentalis 'Smaragd' Emerald Green Arborvitae	3 gal.	Pot	10'	3'	23
SHRUBS							
	BX	Berberis x 'NCBX1' Sunjoy Todo® Barberry	PW 1 gal.	Pot	2'	2'	61
	BG	Bouteloua gracilis 'Blonde Ambition' Blonde Ambition Blue Grass	1 gal.	Pot	3'	3'	15
	EB	Buxus microphylla 'SMNHPPH' Silver Princess™ Boxleaf Honeysuckle	2 gal.	Pot	2'	2.5'	32
	HP2	Hydrangea paniculata 'SMNHPPH' Limelight Prime® Panicle Hydrangea	1 gal.	Pot	4'	4'	10
	JC2	Juniperus chinensis 'Greg's Gold' Greg's Gold Juniper	1 gal.	Pot	2.5'	3'	13
	PV	Panicum virgatum 'Totem Pole' Totem Pole Prairie Winds® Switch Grass	1 gal.	Pot	6'	2.5'	5

PLANTING NOTES

1. CONSULT PLANT LIST FOR PLANT SIZES AND SPECIFICATIONS.
2. CONTRACTOR IS RESPONSIBLE FOR LOCATING AND PROTECTING ALL UTILITIES PRIOR TO INSTALLATION. NOTIFY OWNER IF FIELD CONDITIONS WARRANT ADJUSTMENT OF PLANT LOCATIONS.
3. CONTRACTOR IS RESPONSIBLE FOR ALL PLANTS DRAWN ON PLANS. PLANT LIST QUANTITIES ARE FOR CONVENIENCE ONLY.
4. CONTRACTOR TO PROVIDE A FULL 1 YEAR GUARANTEE ON ALL PLANTS INSTALLED AND PROVIDE COMPLETE MAINTENANCE ON ALL WORK DONE BEGINNING ON THE DAY OF APPROVAL FROM OWNER'S REPRESENTATIVE AND CONTINUING FOR A THREE MONTH DURATION AT WHICH TIME OWNER'S REPRESENTATIVE WILL DECLARE JOB ACCEPTANCE.
5. EACH PLANTING TO BE FREE FROM DISEASE, INSECT INFESTATION AND MECHANICAL INJURIES AND, IN ALL RESPECTS, BE READY FOR FIELD PLANTING.
6. ALL PLANTS TO CONFORM TO THE AMERICAN STANDARD FOR NURSERYMEN STOCK (ANSI Z60.1–2014) IN REGARDS TO SIZING, GROWING AND B&B SPECIFICATIONS.
7. DIG PLANTING HOLES THAT HAVE VERTICAL SIDES AND FLAT BOTTOMS. IF SETTING TREES AND SHRUBS AT GRADE, DIG THE PLANTING HOLES TO A DIAMETER 18 INCHES GREATER THAN THE ROOT STRUCTURE (EARTH BALL). REFER TO ODOT CONSTRUCTION & MATERIAL SPECIFICATION ITEM 661.09 FOR DETAILS.
8. SET PLANTS IN THE PLANTING HOLES AT A LEVEL SUCH THAT THE TOP OF THE ROOT STRUCTURE IS 1 INCH ABOVE THE TOP OF THE GROUND LEVEL. REFER TO ODOT CONSTRUCTION & MATERIAL SPECIFICATION ITEM 661.12 FOR DETAILS.
9. BACKFILL THE PLANTING HOLE WITH BACKFILL MIX CONSISTING OF A) ONE PART EXCAVATED SOIL, B) ONE PART SPHAGNUM PEAT MOSS, SHREDDED PINE BARK, OR EPA RATED CLASS IV COMPOST, C) ONE PART SAND AND D) A SLOW RELEASE COMMERCIAL FERTILIZER (0–20–20 OR EQUAL) ADDED AT A RATE OF 5 POUNDS PER CUBIC YARD (3 KG/M³) TO THE BACKFILL MIX. REFER TO ODOT CONSTRUCTION AND MATERIAL SPECIFICATION ITEMS 661.11 AND 661.12 FOR DETAILS.
10. SMOOTH AND SHAPE THE BACKFILL MIX TO FORM A SHALLOW BASIN SLIGHTLY LARGER THAN THE PLANTING HOLE. MULCH THESE AREAS WITH A 4–INCH LAYER OF FINELY SHREDDED HARDWOOD BARK OF UNIFORM TEXTURE AND SIZE. USE SHREDDED BARK AGED AT LEAST ONE YEAR. RAKE AND SMOOTH THE ENTIRE AREA OF THE PLANTING BEDS, MULCH TO A DEPTH OF 4 INCHES, AND WATER THOROUGHLY. REFER TO ODOT CONSTRUCTION & MATERIAL SPECIFICATION ITEMS 661.13 FOR DETAILS.
11. BRACE ALL TREES BY STAKING AS SHOWN IN DETAIL 1 ON SHEET C4.1.
12. NOTIFY LANDSCAPE ARCHITECT IF FIELD CONDITIONS WARRANT ADJUSTMENT OF PLANT LOCATIONS.
13. ALL CHANGES TO DESIGN OR PLANT SUBSTITUTIONS ARE TO BE AUTHORIZED BY THE OWNER AND GOVERNING MUNICIPALITY.
14. THE CONTRACTOR SHALL REPLACE ANY AND ALL LANDSCAPING THAT IS DAMAGED AS THE RESULT OF CONSTRUCTION ACTIVITIES.
15. **ALL LANDSCAPED AREAS SHALL BE AUTOMATICALLY IRRIGATED. CONTRACTOR SHALL PROVIDE IRRIGATION DESIGN AND PLANS FOR CITY REVIEW. IRRIGATION DRAWINGS/SYSTEMS ARE TO BE PROVIDED AND INSTALLED BY THE LANDSCAPE CONTRACTOR USING RAIN BIRD COMPONENTS.**
16. INSTALL "DEWITT PRO 5 WEED–BARRIER 5 OZ" WEED BLOCKING MAT IN ALL LANDSCAPING AREA PER DETAIL 4 SHEET C4.1 OR APPROVED EQUAL BY CIRCLE K CONSTRUCTION REPRESENTATIVE.
17. TOPSOIL MUST BE BACKFILLED TO PROVIDE POSITIVE DRAINAGE OF THE LANDSCAPE AREA.
18. LANDSCAPED AREAS MAY NOT CONTAIN BARE SOIL, AGGREGATED STONE OR DECORATIVE ROCK. ANY GROUND AREA MUST BE COVERED WITH HARDWOOD MULCH, GRASS OR OTHER VEGETATIVE GROUND COVERAGE.

GRASS SPECIFICATION:

1. PER ODOT CONSTRUCTION & MATERIAL SPECIFICATION ITEM 659.07, FURNISH GRASS SEED FROM A DEALER OR GROWER WHOSE BRANDS ARE GRADES REGISTERED OR LICENSED BY THE STATE OF OHIO, DEPARTMENT OF AGRICULTURE OR FROM THE APPROVED LIST OF GRASS SEED DEALERS OR GROWERS ON FILE WITH THE DEPARTMENT. FURNISH THE KIND AND TYPE OF GRASS SEED REQUIRED THAT MEETS CURRENT SPECIFICATIONS ON FILE WITH THE DEPARTMENT AS TO PERCENTAGE PURITY, PERCENTAGE WEED SEED, AND PERCENTAGE GERMINATION.
2. REMOVE STONES 1–INCH OR GREATER IN ANY DIMENSION FROM ALL SEED AREAS.
3. IF PLACING TOPSOIL, A MIN. OF 4" CLEAN TOPSOIL SHOULD BE PLACED TO MEET FINAL GRADE AS SHOWN ON GRADING PLANS. TOPSOIL MIXTURE TO BE 1 PART COMPOST AND 2 PARTS TOPSOIL.
4. ALL AREAS TO BE SEEDED SHALL RECEIVE NO LESS THAN FIVE POUNDS OF SEED PER ONE THOUSAND SQUARE FEET. APPLY SEED AND PROTECT WITH STRAW MULCH AS REQUIRED FOR NEW LAWNS. GRASS SEED MIX SHALL CONSIST OF THE FOLLOWING:

PROPORTION	NAME	MIN. % GERMINATION	HIGH QUALITY %
30%	Kentucky Bluegrass	80	85
30%	Creeping Red Fescue	85	90
20%	Perennial Ryegrass	85	90
20%	Annual Ryegrass	85	90

5. TEMPORARY EROSION CONTROL MATTING:
   - INSTALL EROSION CONTROL MATTING IN ACCORDANCE WITH ODOT 712.11 TYPE G ON ALL SLOPES STEEPER THAN 4:1 AND IN THE BOTTOM OF SWALES
   - WOOD FIBER EXCELSIOR TYPE MATERIAL WITH PHOTODEGRADABLE NETTING. XCEL R–1 BY WESTERN EXCELSIOR CORPORATION OR APPROVED EQUAL
   - POLY–WEAVE NET TYPE MATTING WILL NOT BE ACCEPTABLE.
   - CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING LOOSE NETTING PRIOR TO INITIAL MOWING.

LEGEND

- EX. LAWN/LANDSCAPE AREA BEYOND PROJECT LIMITS
- PROP. LAWN/LANDSCAPE AREA WITHIN PROJECT LIMITS
- CONCRETE CANOPY PAD , SIDEWALKS, & DRIVE APRONS
- MULCH
- EXISTING WOODS (TO REMAIN)
- WETLAND AREA

NORTH

0 10 20 40

SCALE (IN FEET)
1 inch = 20 ft.

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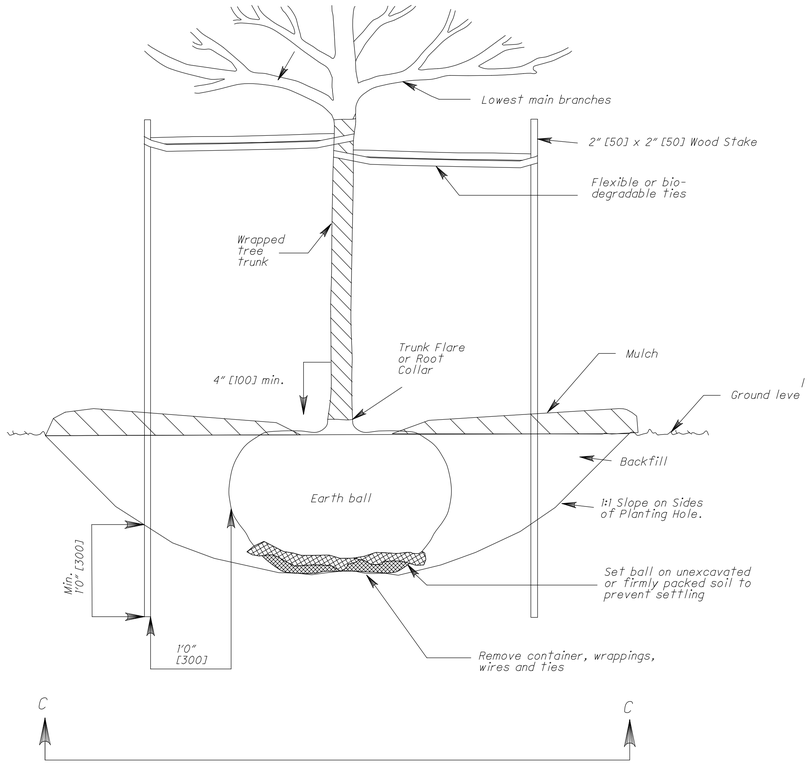
DRAWING TITLE:

SITE LANDSCAPING PLAN

SHEET NO:

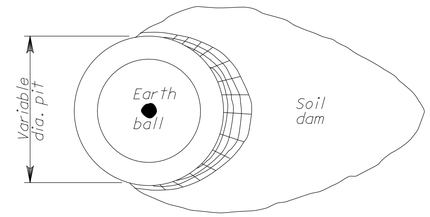
C4.0



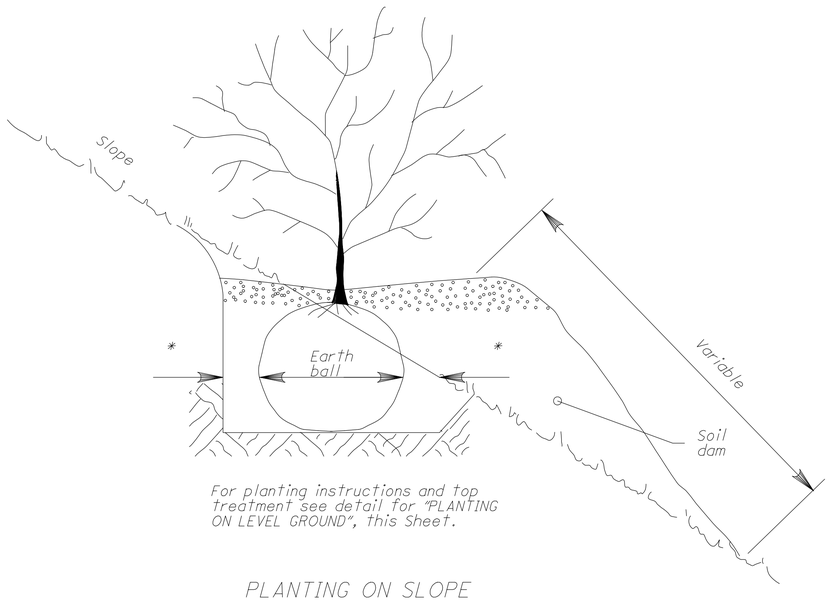
Top of hole shall be minimum of 2 x Width of root ball.

TREE PLANTING & BRACING
PLANTING ON LEVEL GROUND

1 C4.1 ODOT TREE PLANTING AND BRACING DETAIL
SCALE: NTS



PLAN VIEW



For planting instructions and top treatment see detail for "PLANTING ON LEVEL GROUND", this Sheet.

PLANTING ON SLOPE

2 C4.1 ODOT PLANTING ON SLOPE DETAIL
SCALE: NTS

NOTES

PLANTING DETAILS: The types and quantities of fertilizer, water, mulch and backfill vary with different soil and weather conditions. The costs for these items shall be included in the unit price bid for the planting items per CMS.

Pit diameter and depth shall vary with the type and size of the plant, the soil type and other site conditions.

Backfill unless otherwise specified, shall be in accordance with CMS 661.11. Circling roots of container plants shall be cut or removed prior to planting and backfilling.

Walls of planting holes dug with a tree spade shall be roughened before planting.

Only flexible or biodegradable ties shall be used when staking trees. The ties shall be lose fitting, (not girdle the truck) attached to the lower half of the tree, and allow trunk movement and growth. All wrap and staking shall be removed at the end of the establishment period, as per CMS 661.17.

Provide a minimum 4" [100] space between the tree trunk and the mulch bed

3 C4.1 ODOT PLANTING NOTES
SCALE: NTS

DeWitt PRO 5 Weed-Barrier® 5 oz
DeWitt Pro 5 Weed-Barrier® 5 oz is a woven, needle punched polypropylene fabric for commercial-grade weed control.

Product Specification

Properties	Test Method	Unit	Minimum Average Roll Value
Woven Material Fiber Backing			Polypropylene Polyester
Color			Black with Gold Stripe every 12"
Construction Weave			15 x 10 or 10 x 15
Weight	ASTM D 5261	OZ/SY	5.0 Scrim 2.8 Cap 2.2
Grab Tensile Strength	ASTM D 4632	LBS	Warp 80 Weft 65
Grab Elongation	ASTM D 4632	%	Warp 15 Weft 15
Trapezoid Tear	ASTM D 4533	LBS	Warp 35 Weft 30
Puncture	ASTM D 6241	LBS	300
Water Permeability	ASTM D 4491	GAL/MIN/SF	10
Ultraviolet Exposure	ASTM D 4355	% Strength Retained	>70% after 2500 Hrs Carbon Arc Exposure
Thickness		Mils	28

905 South Kingshighway Sikeston, MO 63801
573.472.0048 phone • 800.888.9669 • 573.471.6715 fax • dewittcompany.com

4 C4.1 WEED BARRIER FABRIC SPECIFICATIONS
SCALE: NTS

CLIENT:

CIRCLE K
GREAT LAKE REGION
935 E. TALLMADGE AVE.
AKRON, OH 44130
(330) 630-6300

CONSULTANT:

Wellert ENGINEERS • SURVEYORS
5136 Beach Road • Medina, Ohio 44256
t: 330.239.2699

NO.	DATE	REVISION DESCRIPTION
A	10/18/24	ISSUED FOR PLANNING COMMISSION APPROVAL
B	04/25/25	REVISIONS PER CITY REVIEW AND ISSUED FOR PLANNING COMMISSION APPROVAL

STATE OF OHIO ROBERT W. WELLERT E-59085 REGISTERED PROFESSIONAL ENGINEER

PROJECT TITLE

PROPOSED NEW CIRCLE K STORE

SITE ADDRESS:

34273 LORAIN RD
N. RIDGEVILLE, OHIO
44039
LORAIN COUNTY

SCALE:	AS NOTED
DATE:	09/24/2024
DESIGNED BY:	TD
DRAWN BY:	TD
CHECKED BY:	ID
FILE NAME:	230907-C4.0.dwg
JOB NUMBER:	230907

DRAWING TITLE:

SITE LANDSCAPING DETAILS

SHEET NO:

C4.1

PV: Panicum virgatum 'Totem Pole' – Totem Pole Prairie Winds® Switch Grass

BG: Bouteloua gracilis 'Blonde Ambition' – Blonde Ambition Blue

BX: Berberis x 'NCBX1' – Sunjoy Todo® Barberry

HP2: Hydrangea paniculata 'SMNHPPH' – Limelight Prime® Panicle Hydrangea

JC2: Juniperus chinensis 'Greg's Gold' – Greg's Gold Juniper

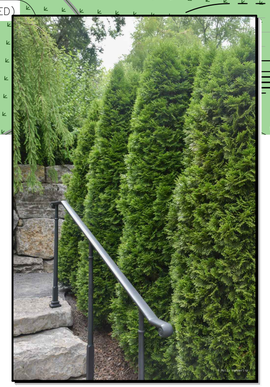
JS: Juniperus scopulorum 'Wichita Blue' – Wichita Blue Juniper

PC: Prunus cerasifera 'Atropurpurea' – Purple-leaf Plum

GT2: Gleditsia triacanthos inermis 'Suncole' – Sunburst® Honey Locust

AA2: Acer x freemanii 'Armstrong' – Armstrong Freeman Maple

GE: Ginkgo biloba 'Blagon' – Goldspire Maidenhair Tree



TO: Thuja occidentalis 'Smaragd' – Emerald Green Arborvitae

CLIENT:

CIRCLE K
GREAT LAKE REGION
935 E. TALLMADGE AVE.
AKRON, OH 44130
(330) 630-6300

CONSULTANT:

Wellert ENGINEERS • SURVEYORS
5136 Beach Road • Medina, Ohio 44256
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B	04/25/25	REVISIONS PER CITY REVIEW AND ISSUED FOR PLANNING COMMISSION APPROVAL

STATE OF OHIO — ROBERT W. WELLERT E-59085 — REGISTERED PROFESSIONAL ENGINEER

PROJECT TITLE

PROPOSED NEW CIRCLE K STORE

SITE ADDRESS:

34273 LORAIN RD
N. RIDGEVILLE, OHIO
44039
LORAIN COUNTY

SCALE:	1" = 20'
DATE:	09/05/2024
DESIGNED BY:	TD
DRAWN BY:	TD
CHECKED BY:	ID
FILE NAME:	230907-C4.0.dwg
JOB NUMBER:	230907

DRAWING TITLE:

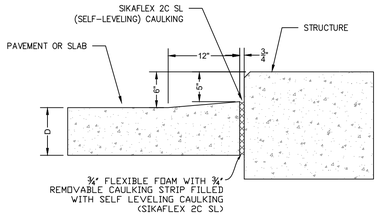
SITE LANDSCAPING PLAN WITH PLANT PHOTOS

SHEET NO:

C4.2

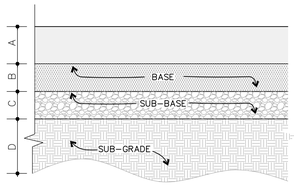
NORTH
SCALE (IN FEET)
1 inch = 20 ft.

OHIO811.org Before You Dig



*THE 1 INCH "TURN UP" AT STRUCTURES IS NOT INDICATED AS PART OF THE ELEVATIONAL DATA AS SHOWN ON THE GRADING PLAN

1 / C6.0 TYPICAL PAVEMENT/SLAB TURN UP AT STRUCTURES
SCALE: 1" = 1'- 0"

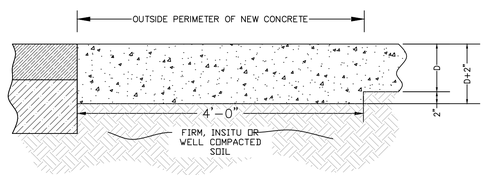


RIGID CONCRETE PAVEMENT SECTIONS		
RECOMMENDED THICKNESSES (INCHES)*		
PAVEMENT MATERIALS*	**STANDARD DUTY**	**HEAVY DUTY & DRIVE APRONS**
A - Concrete Pavement	6.0	8.0
B - Graded Aggregate Base (Well graded crushed stone; ODOT Approved)	6.0	8.0
C - Not Required	--	--
D - Soil Compaction per Specifications	--	--
* Portland cement concrete should conform to Ohio Depart. Of Transportation guidelines and be adequately reinforced per ACI recommendations		

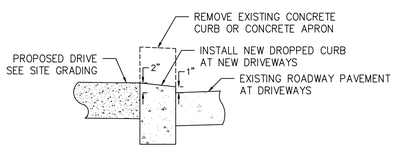
PAVING NOTES

1. COMPACT SUB-BASE TO 90% RELATIVE DENSITY PER ASTM D-4253
2. COMPACT SUB-GRADE TO 98% STANDARD PROCTOR PER ASTM D-698.
3. SUBGRADE MUST PASS PROOF ROLL TESTS PRIOR TO ACCEPTANCE.
4. PAVEMENT DESIGNATED AS "HEAVY-DUTY" WILL REQUIRE JOINTS TO BE DOWELED. JOINT SPACING AND EDGE DESIGN SHALL BE DETERMINED PER ACI REQUIREMENTS.

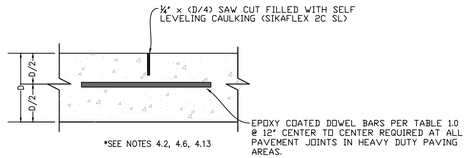
2 / C6.0 CONCRETE PAVING SECTION
SCALE: NTS



3 / C6.0 OUTSIDE PERIMETER OF NEW CONCRETE PAVEMENT
SCALE: NTS

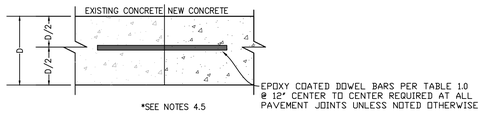


4 / C6.0 PROPOSED DROPPED CURB AT NEW DRIVEWAYS
SCALE: NONE



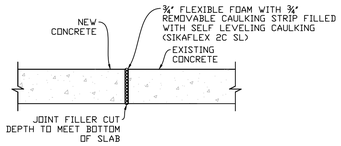
*SEE NOTES 4.2, 4.6, 4.13

5 / C6.0 CONCRETE CONTROL JOINTS
SCALE: NTS



*SEE NOTES 4.5

6 / C6.0 CONCRETE CONSTRUCTION JOINTS
SCALE: NTS



*SEE CONCRETE NOTE 4.16

7 / C6.0 CONCRETE ISOLATION JOINTS
SCALE: NTS

FLEXIBLE ASPHALT PAVEMENT SECTIONS			
RECOMMENDED THICKNESSES (INCHES)*			
PAVEMENT MATERIALS*	**STANDARD DUTY**	**HEAVY DUTY**	MILL/FILL AREAS
A - Asphalt Surface Course (Item 441, Type I; ODOT Approved)	1.5	1.5	1.5
B - Asphalt Intermediate Course (Item 441, Type 2; ODOT Approved)	3.0	5.0**	1.25
C - Bituminous Base Course	--	--	
D - Graded Aggregate Base (Item 304; ODOT Approved)	8.0	10.0	
* Pavement and subbase materials should conform to ODOT guidelines. **2-layers			

PAVING NOTES

1. ALL CONSTRUCTION TO CONFORM TO THE LATEST VERSION OF THE STATE DOT REQUIREMENTS.
2. COMPACT SUB-BASE TO 90% RELATIVE DENSITY PER ASTM D-4253.
3. COMPACT SUB-GRADE TO 98% STANDARD PROCTOR PER ASTM D-698.
4. SUBGRADE MUST PASS PROOF ROLL TESTS PRIOR TO ACCEPTANCE.
5. THE MAXIMUM PROPORTIO OF RECYCLED ASPHALT PAVEMENT (RAP) TO VIRGIN AGGREGATES SHALL NOT EXCEED 20% OF THE TOTAL MIX.
6. ALL HMA PLACED SHALL BE COMPACTED TO BETWEEN 92 AND 97 PERCENT OF THE MAXIMUM DENSITY AS DETERMINED BY AASHTO METHOD T-209.

8 / C6.0 PROPOSED ASPHALT PAVING SECTION
SCALE: NONE

CONCRETE NOTE:

ALL CONCRETE IS TO BE REINFORCED USING FORTA-FERRO MACRO-SYNTHETIC FIBERS, 2-1/4 INCHES LONG AT 4 POUNDS PER CUBIC YARD (OR EQUAL).

TABLE 1.0 CONCRETE JOINTS - DOWEL REQUIREMENTS				
SLAB THICKNESS (IN.)	DOWEL DIAMETER (IN.)	MIN. DOWEL EMBEDMENT EACH SIDE (IN.)	MIN. DOWEL LENGTH (IN.)	DOWEL SPACING ON-CENTERS (IN.)
6.0	⅜	6	14	12
7.0	1	8	18	12
8.0	1⅛	8	18	12
≥ 9.0	1¼	8	18	12

ALL DOWELS ARE TO BE EPOXY-COATED AND COVERED WITH BOND BREAKER
DOWELS ARE NOT REQUIRED IN PAVEMENT DEPTHS < 6.0".

TABLE 2.0 CONTROL JOINT SPACING - UNREINFORCED CONCRETE		
CONTROL JOINT SPACING MAX. (FEET)	CONCRETE THICKNESS (INCHES)	SAW CUT MINIMUM (INCHES)
8.0	4	¼ x 1
10.0	5	¼ x 1¼
12.0	6	¼ x D/4*
14.0	7	¼ x D/4*
16.0	8	¼ x D/4*
18.0	9	¼ x D/4*
20.0	10	¼ x D/4*

JOINTS ARE TO BE CUT TO PROVIDE SQUARE SECTIONS AS MUCH AS POSSIBLE. MAXIMUM PANEL LENGTH TO WIDTH RATIO IS 1.50.

*D = CONCRETE THICKNESS

CONCRETE NOTES

1.0 GENERAL

1.1 THE REQUIREMENTS OF THE STATE BUILDING CODE, THE AMERICAN CONCRETE INSTITUTE (ACI) AND STATE DEPARTMENT OF TRANSPORTATION (DOT) APPLY TO ALL NEW CONCRETE CONSTRUCTION UNLESS OTHERWISE NOTED (LATEST REVISIONS).

1.2 ALL CONCRETE WORK SHALL CONFORM TO THE LATEST APPROVED EDITIONS OF THE FOLLOWING ACI DOCUMENTS:

ACI 211.1-91	PROPORTIONS OF CONCRETE
ACI 214R-11	GUIDE TO CONCRETE STRENGTH EVALUATIONS
ACI 301-16	SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS
ACI 304R-00 & ACI 302.1R-15	FLOOR AND SLAB CONSTRUCTION
ACI 304.6R-09	MEASURING & MIXING CONCRETE
ACI 305.1-4 & ACI 305R-10	HOT WEATHER CONCRETE
ACI 306.1-90 & ACI 306R-16	COLD WEATHER CONCRETE
ACI 308.1-11 & ACI 308R-16	CURING CONCRETE
ACI 309R-05	CONCRETE CONSOLIDATION
ACI 318-14	BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE
ACI 325.9R-15	CONCRETE PAVEMENTS
ACI 325.12R-02	JOINTED CONCRETE PAVEMENTS
ACI 330.2R-17	CONCRETE DESIGN GUIDE FOR TRUCK FACILITIES
ACI 347R-13	FORMWORK

1.3 ALL CONCRETE WORK SHALL CONFORM TO THE LATEST APPROVED EDITIONS OF ASTM:

ASTM C31	FIELD CYLINDER SPECIMENS
ASTM C39	LAB TESTING CYLINDER
ASTM C42	HARDENED CORES
ASTM C78	FLEXURAL STRENGTH TESTING OF CONCRETE
ASTM C94	READY MIX CONCRETE
ASTM C143	SLUMP TEST
ASTM C172	SAMPLING FRESH CONCRETE
ASTM C231	AIR CONTENT
ASTM C260	AIR ENTRAINMENT
ASTM C494	WATER REDUCER

2.0 MIXING

2.1 CONCRETE MIX DESIGN - MIX DESIGN SHALL BE ESTABLISHED BY THE CONCRETE SUPPLIER BASED ON A PROVEN STRENGTH RECORD FOR CONCRETE MADE WITH SIMILAR INGREDIENTS AND SHALL CONFORM TO ACI 211, EXCEPT AS SPECIFIED HEREIN, USING APPROVED MATERIALS.

2.2 CONCRETE MIX DESIGNS SHALL BE SUBMITTED FOR REVIEW BY THE ENGINEER 72 HOURS PRIOR TO USE. OBTAIN ENGINEER'S APPROVAL BEFORE USING CONCRETE ADMIXTURES. USE OF CALCIUM CHLORIDE WILL NOT BE PERMITTED.

2.3 TESTS FOR ALL MATERIALS SHALL BE CURRENT WITHIN THE PAST TWELVE (12) MONTHS PRIOR TO USE IN THE WORK. MAKE TESTS AVAILABLE TO THE ENGINEER UPON REQUEST. ANY TESTING REQUIRED BY CITY AGENCIES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. ANY LOCAL MORE STRINGENT REQUIREMENTS SHALL TAKE PRECEDENCE OVER THESE SPECIFICATIONS AND BE INCLUDED IN THE CONTRACTOR'S BASE BID.

2.4 SUBMITTALS REQUIRE NAME AND LOCATION OF CONCRETE SUPPLIER. SUBMIT CONCRETE MIX DESIGN INDICATING AMOUNT OF ALL INGREDIENTS FOR EACH CLASS TO BE USED IN THE WORK.

2.5 THE CONTRACTOR SHALL HAVE AT HIS DISPOSAL A MODERN AND DEPENDABLE BATCH PLANT WITHIN A REASONABLE DISTANCE FROM THE WORK.

2.6 CONCRETE SHOULD BE BATCHED, MIXED AND DELIVERED IN ACCORDANCE WITH ASTM C94/94M.

2.7 ALL CEMENT SHALL CONFORM TO ASTM C150, TYPE II. TYPE I MAY BE EMPLOYED WITH ENGINEER'S APPROVAL.

2.8 NORMAL WEIGHT CONCRETE TO DEVELOP A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 5,000 PSI AT 28 DAYS. MAXIMUM WATER-CEMENT RATIO TO BE 0.40. AIR ENTRAINMENT IS TO BE 6.5% (± 1.5%). MODULUS OF RUPTURE (MOR) IS TO BE 650 PSI (4.5MPa) PER ASTM C78 STANDARDS.

2.9 SLUMP LIMITS:
PAVMENT, RAMPS, SLABS AND SLOPING SURFACES: 3"
FOUNDATION: 3"
CONCRETE CONTAINING HIGH RANGE WATER-REDUCING ADMIXTURES (SUPERPLASTICIZER): 8" AFTER ADDING ADMIXTURE TO SITE-VERIFIED 3" SLUMP CONCRETE.
TOLERANCES IN SLUMP OR SLUMP FLOW...ASTM C94/C94M:

FOR SLUMP OF	TOLERANCE
2" AND LESS	± ½" INCH [15mm]
MORE THAN 2 THROUGH 4 IN.	± 1" IN [25 mm]
MORE THAN 4 IN [100 mm]	± 1 ½ " [40 mm]

2.10 FINE AND COARSE AGGREGATES SHALL COMPLY IN ALL RESPECTS TO ASTM C33. MAXIMUM SIZE 1 1/2" FOR GENERAL CONCRETE COARSE AGGREGATES. COARSE AGGREGATE FOR SIDEWALKS, CURBS AND GUTTERS MAXIMUM SIZE 3/4". COARSE AGGREGATE SHALL BE CRUSHED LIMESTONE OR APPROVED EQUAL.

2.11 WATER - USE PUBLIC POTABLE WATER SUPPLY, CLEAN AND FREE FROM DELETERIOUS MATERIALS.

2.12 ADMIXTURES - WATER REDUCING - SHALL CONFORM TO ASTM C494, TYPE A, AND AIR-ENTRAINING SHALL CONFORM TO ASTM C260.

3.0 QUALITY ASSURANCE / QUALITY CONTROL

3.1 CONCRETE CYLINDERS ARE TO BE TAKEN FROM EVERY 35 CUBIC YARDS OF CONCRETE PLACED. CONCRETE CYLINDERS ARE TO BE OBTAINED AS FOLLOWS: (4) 4" x 8" CYLINDERS FOR LABORATORY CURE AND TESTING. (2) 4" x 8" CYLINDERS FOR FIELD CURE AND TESTING. CYLINDERS ARE TO BE TESTED FOR SLUMP, AIR AND TEMPERATURE AT TIME OF PLACEMENT. CYLINDERS ARE TO BE COMPRESSION TESTED AT 7 DAYS AND 28 DAYS. THE ENGINEER IS TO BE NOTIFIED IMMEDIATELY IF FIELD TESTS DO NOT SATISFY SPECIFICATIONS.

3.2 UPON COMPLETION OF CONCRETE TESTING, THE AGENCY SHALL CERTIFY THEIR RESULTS AS FOLLOWS:

"I CERTIFY THAT THE FIELD AND LAB TESTING CONFORMS TO ACI AND ASTM STANDARDS AND AS HEREIN-SPECIFIED."

SIGNED _____, P.E.

3.3 CONCRETE SURFACE IS TO BE TRUE WITHIN 1/8" WHEN MEASURED USING 10'0" STRAIGHT EDGE IN ANY DIRECTION.

3.4 THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE QUALITY CONTROL OF ALL CONCRETE.

3.5 CONCRETE WHICH DOES NOT MEET THE REQUIREMENTS OF THESE SPECIFICATIONS MAY BE REJECTED BY THE ENGINEER.

4.0 CONCRETE PLACEMENT

4.1 CONCRETE FORMWORK SHALL CONFORM TO ACI 347R-13. FORMS SHALL BE SUBSTANTIALLY FREE FROM SURFACE DEFECTS AND SUFFICIENTLY TIGHT TO PREVENT LEAKAGE FORMS. SHALL BE PROPERLY BRACED AND TIED TO MAINTAIN POSITION AND SHAPE DURING AND AFTER PLACING CONCRETE.

4.2 REINFORCING STEEL BARS SHALL BE DEFORMED NEW BILLET STEEL CONFORMING TO ASTM A615, GRADE 60. WIRE FABRIC SHALL BE COLD-DRAWN STEEL CONFORMING TO ASTM A185. ALL DOWEL BARS ARE TO BE EPOXY-COATED, SMOOTH STEEL BARS AT SLAB MID-DEPTH AT 12" CENTERS AND ARE TO BE COATED WITH A BOND BREAKER.

4.3 CONCRETE COVER FOR REINFORCING STEEL:
- 3" BOTTOM (CLEAR)
- 2" TOP AND SIDES (CLEAR)

4.4 ALL REINFORCING BARS ARE TO BE TIED, SUPPORTED ON CHAIRS AND LOCATED AS SHOWN ON DRAWINGS.

4.5 PROVIDE DOWELED CONCRETE PAVEMENT CONSTRUCTION JOINTS AT INTERFACE BETWEEN AREAS OF CONCRETE PLACED AT DIFFERENT TIMES DURING THE COURSE OF THE PROJECT. PROVIDE JOINT SEAL.

4.6 PROVIDE DOWELED CONTROL JOINTS AS SPECIFIED. PROVIDE JOINT SEAL.

4.7 ALL DOWELS ARE TO BE FASTENED INTO DOWEL BASKETS AND LOCATED AS SHOWN ON DRAWINGS. JOINTS ARE TO BE LOCATED OVER CENTERLINE OF DOWELS.

4.8 ALL DOWELS ARE TO BE EPOXY COATED AND COVERED WITH BOND BREAKER.

4.9 DOWELS AND REINFORCING BARS ARE TO REMAIN IN POSITION AS SHOWN ON DRAWINGS THROUGH COMPLETION OF CONCRETE PLACEMENT.

4.10 CONCRETE SHALL BE CONSOLIDATED USING HIGH FREQUENCY VIBRATORS. VIBRATION PRACTICES TO BE IN ACCORDANCE WITH ACI 309R.

4.11 SAW CUT CONTROL JOINTS AS LOCATED ON PLANS USING ¼" THICK BLADE. FILL SAW CUT WITH SELF LEVELING, POLYURETHANE BASE JOINT SEALANT. SEALANT TO BE CLASS "A", ASTM C-920, TYPE S, GRADE P, CLASS 25. ACCEPTABLE MATERIAL: SIKAFLEX 2C SL AS MANUFACTURED BY SIKA OR APPROVED EQUAL. BACKER ROD AND SEALANT ONLY REQUIRED ON EXPOSED SLABS.

4.12 SAWCUT JOINTS 4-12 HOURS AFTER PLACING CONCRETE (AS SOON AS SURFACE IS FIRM ENOUGH, SO THAT IT WILL NOT BE TORN OR DAMAGED BY THE CUTTING MACHINE OR BLADE). DO NOT WAIT UNTIL THE NEXT DAY TO MAKE SAWCUTS.

4.13 SAW-CUT PAVEMENT CONTROL JOINTS FOR UNREINFORCED CONCRETE PER DETAILS. JOINTS ARE TO BE CUT TO PROVIDE SQUARE SECTIONS AS MUCH AS POSSIBLE. MAXIMUM PANEL LENGTH TO WIDTH RATIO IS 1.5, U.N.O.

4.14 COLD WEATHER CONCRETING IS TO BE PERFORMED PER ACI 306R-16 AND ACI-306.1-90. HOT WEATHER CONCRETING IS TO BE PERFORMED PER ACI 305R-10 AND ACI-305.1-4.

4.15 FOR COLD WEATHER CONCRETE PAVEMENT CONSTRUCTION, USE COMBINATION OF NON-CHLORIDE ACCELERATOR AND WATER-REDUCER THAT MEET REQUIREMENTS OF ASTM C494/C494M FOR TYPE C ACCELERATING MIXTURES AND TYPE E, OR BOTH. CONCRETE SHALL BE COVERED AND INSULATED (AND HEATED IN NECESSARY) FOR MINIMUM 72 HOURS WHEN AMBIENT OUTSIDE AIR TEMPERATURES ARE BELOW 40° F.

4.16 PROVIDE ISOLATION JOINT WHERE MEETING ADJACENT PAVEMENT, STRUCTURES OR CURB. SEAL ALL JOINTS WITH SELF LEVELING CAULK (SIKAFLEX 2C SL). SEE DETAIL 7 (THIS SHEET)

5.0 OPENINGS

5.1 FOR OPENINGS THAT ARE LEFT IN NEW CONCRETE OR WHERE MADE IN EXISTING CONCRETE FOR THE INSERTION OF WALL CASTINGS, PIPES OR OTHER FIXTURES: THE SPACE AROUND THESE ITEMS SHALL BE MADE WATERTIGHT BY COMPLETELY FILLING WITH A NON-SHRINK GROUT UNLESS ANOTHER METHOD IS SPECIFIED ELSEWHERE IN THE CONTRACT DOCUMENTS. ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

5.2 THE LOCATION OF ALL OPENINGS IN WALLS, SLABS OR FOUNDATIONS SHALL BE APPROVED BY THE STRUCTURAL ENGINEER. WHERE OPENINGS FOR ELECTRICAL, MECHANICAL, OR PLUMBING ARE NOT SHOWN, THE GENERAL CONTRACTOR IS TO COORDINATE.

5.3 ALL COVERS, GASKETS, AND SEALS TO BE IN PLACE AND WATER TIGHT PRIOR TO PLACING CONCRETE.

5.4 ALL GROUT SHALL BE HIGH-STRENGTH, NON-SHRINK, NONMETALLIC, NON-GAS FORMING, PRE-BLENDED AND READY FOR USE REQUIRING ONLY THE ADDITION OF WATER.

6.0 FINISH, CURE, SEAL

6.1 FORMED CONCRETE SURFACES SHALL BE SURFACE FINISHED AS SOON AS PRACTICAL. REMOVE ALL FORM TIES, FINS AND PROJECTIONS. PATCH TIE HOLES, INDENTATIONS AND OTHER SURFACE IRREGULARITIES WITH SAND CEMENT PATCHING MORTAR, 3000 PSI. FILL AND REPAIR HONEYCOMBS AND HOLES.

6.2 UNLESS OTHERWISE NOTED, ALL FORMED CONCRETE SURFACES TO BE EXPOSED SHALL BE GIVEN A RUBBED FINISH. IN THE CASE OF RESTORATION, THE RUBBED FINISH SHALL BE EQUAL TO THAT OF THE CONCRETE SURFACE BEING REPLACED. INVERTS, BENCH WALLS, FLOORS, OR STRUCTURES AND SIMILAR SURFACES SHALL BE GIVEN A FLOAT FINISH. SIDEWALKS SHALL BE HAND FLOATED USING A MAGNESIUM FLOAT AND GIVEN A BROOM FINISH PERPENDICULAR TO TRAFFIC, EDGES OF SLABS TO BE TOOLED. PAVEMENT IS TO BE FINISHED AS A NON-SKID SURFACE.

6.3 CONCRETE PAVEMENT SHALL HAVE A MEDIUM BROOM FINISH.

6.4 CONCRETE IS TO BE CURED PER ACI 308R-16 AND ACI 308.1-11.

6.5 CONCRETE TO BE SEALED WITH CHEMTEC ONE PER MANUFACTURER'S RECOMMENDATIONS AFTER ALL BLEED WATER HAS DISSIPATED AND APPLICATION WILL NOT MAR SURFACE.

(MODIFIED 03/08/2024)

CLIENT:

CIRCLE K
GREAT LAKES REGION
935 E. TALLMADGE AVE.
AKRON, OH 44310
(330) 630-6300

CONSULTANT:

Wellert
ENGINEERS • SURVEYORS
5136 Beach Road • Medina, Ohio 44256
t: 330.239.2699
WWW.WELLERT.COM

NO.	DATE	REVISION DESCRIPTION
A	04/25/25	ISSUED FOR PLANNING COMMISSION APPROVAL

STATE OF OHIO
ROBERT W. WELLERT
E-59085
REGISTERED PROFESSIONAL ENGINEER

PROJECT TITLE

PROPOSED NEW CIRCLE K STORE

SITE ADDRESS:

34273 LORAIN RD
N. RIDGEVILLE, OHIO
44039
LORAIN COUNTY

SCALE:	AS NOTED
DATE:	02/12/2024
DESIGNED BY:	ID
DRAWN BY:	ID
CHECKED BY:	ID
FILE NAME:	230907-DETAILS.dwg
JOB NUMBER:	230907

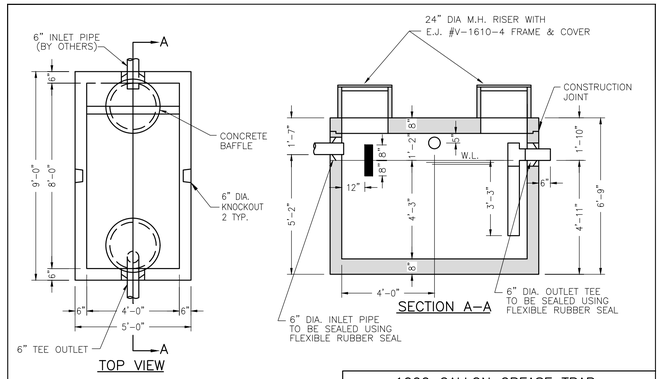
DRAWING TITLE:

SITE DETAILS & SPECIFICATIONS

SHEET NO:

C6.0

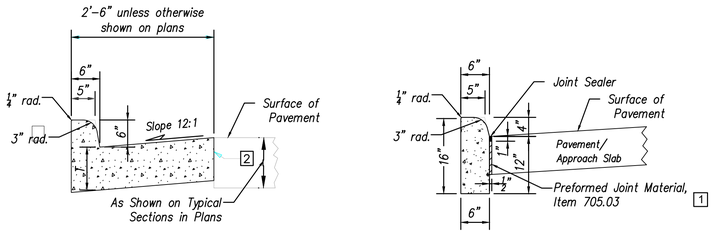
File: a:\230907\production\dwg\details\230907-details.dwg Saved: 4/25/2025 11:35 AM (wellert) Plotted: 4/25/2025 4:29 PM (wellert) Pctstyle: (MC Standard.ctb) Scale: (1:1) Page Setup: (----)



NOTES:
1. REINFORCED PRECAST CONCRETE SHALL HAVE A COMPRESSIVE STRENGTH OF 5000 PSI AT 28 DAYS.
2. 24" DIA. RISER AVAILABLE IN 12" + 24" HEIGHTS.
3. CONSTRUCTION JOINT TO BE SEALED WITH 1 1/4" CONSEAL CS–102 SEALANT.

1000 GALLON GREASE TRAP HEAVY DUTY		
DRAWN BY: BK	SCALE: 3/8"=1'–0"	DRAWING NO.: 1000GTHDSTOCK
DATE: 5–9–95	REV: 10/18/19 AJK	
MACK INDUSTRIES, INC. 201 COLUMBIA ROAD, VALLEY CITY, OHIO 44280 (330)483–3111		

1 C6.1 MACK INDUSTRIES – 1000 GALLON GREASE TRAP
SCALE: NONE



NOTES

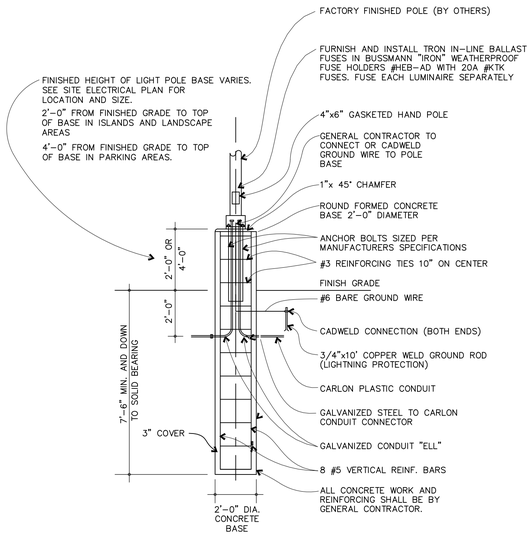
GENERAL: This drawing shows alternate types of curb that may be used on various types of pavement. The typical section of the project shows the type to be used, also the thickness of the edge of the pavement or the edge of the curb and gutter section. JOINTS: 1" expansion joints shall extend up to the top of the curb and shall be constructed in the curb and gutter section in such a manner that the joint seal will extend the full width of the gutter and into the curb face a sufficient distance to seal the joint to an elevation of at least 2" above the flow line of the gutter. Dowel bars shall be used in the curb and gutter section at expansion joints and to the surface of the pavement. Transverse expansion joint material shall meet the requirements of Item 705.03. GUTTER PLATE THICKNESS: Thickness of gutter plate "T" shall be 9" unless otherwise shown on the plans. TOLERANCES: Dimensional tolerances are as follows: –1 32 Curbs: " to +¼". Gutters: 0 to +½".

LEGEND

1 Expansion joint material and joint sealer are not required for the portion of the curb that is adjacent to a flexible pavement type. Both materials are required, as detailed, for the full height of rigid pavement and concrete bases.

2 Butt joints shall be provided between combined curb–and–gutter and new or existing rigid pavements, with tie bars or hook bolts provided at intervals of 5'. See SCD BP–2.1 for details of tie bars and hook bolts. If the combined curb–and–gutter adjoins a new rigid base or an existing rigid base or pavement that is to be surfaced with asphalt concrete, a butt joint shall also be provided. However, tie bars or hook bolts shall be omitted when the vertical overlap ("V" in detail below) between the curb–and–gutter and rigid pavement is less than 7".

2 C6.1 ODOT CURB
SCALE: N.T.S.



LAYOUT NOTE:
A MINIMUM CLEARANCE OF 2 FEET SHALL BE MAINTAINED BETWEEN THE FACE OF CURB/EDGE OF SIDEWALK AND ANY PART OF A LIGHT POLE.

SEE SITE PLAN SHEET C1.0 FOR ADDITIONAL LAYOUT INFORMATION.

NOTES:
1. 3500 P.S.I. MIN. 28 DAY COMPRESSIVE STRENGTH CONCRETE WITH GRADE 60 REINFORCING STEEL
2. IF WATER IS PRESENT IN HOLE. REMOVE BEFORE POURING CONCRETE.
3. FOUNDATION EXCAVATION SHALL BE BY 24" AUGER IN UNDISTURBED OR PROPERLY COMPACTED FILL PER SPECIFICATIONS.
4. FOUNDATION SHALL HAVE A MINIMUM ALLOWABLE END BEARING OF 2000 P.S.F. INCREASE BASE DEPTH AS REQUIRED.

SITE ELECTRICAL NOTES

A. FINAL ADJUSTMENTS OF THE FLOODLIGHTS ANGLE AND DIRECTION ARE TO BE MADE AFTER DARK TO AVOID INTERFERENCE WITH TRAFFIC OR ADJACENT PROPERTY, PER SATISFACTION OF OWNERS REPRESENTATIVE.

B. ALL SITE LIGHTING TO BE WIRED IN P.V.C. CONDUIT. EACH CIRCUIT TO HAVE DIRECT RUN TO THE SWITCHGEAR. EACH CIRCUIT TO HAVE ITS OWN CONDUIT, UNLESS NOTED OTHERWISE.

C. FLOODLIGHTS, POLE SIGNS, SIDE BUILDING SIGNS AND ROOF LIGHTS ARE TURNED ON/OFF THROUGH A LIGHTING CONTROLLER (WITH PHOTOCELL) AND TIME CLOCKS.

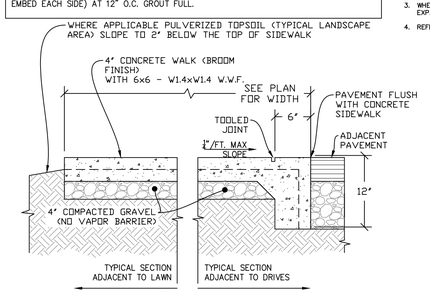
D. RUN 1 1/2" CONDUIT FOR THE POLE SIGN(S) UNLESS NOTED OTHERWISE.

E. COORDINATE BASE PLATE AND ANCHOR BOLT LAYOUT WITH POLE SUPPLIER.

F. GAS ELECTRONIC PRICE SIGN ON SEPARATE CIRCUIT, NOT ON TIMER.

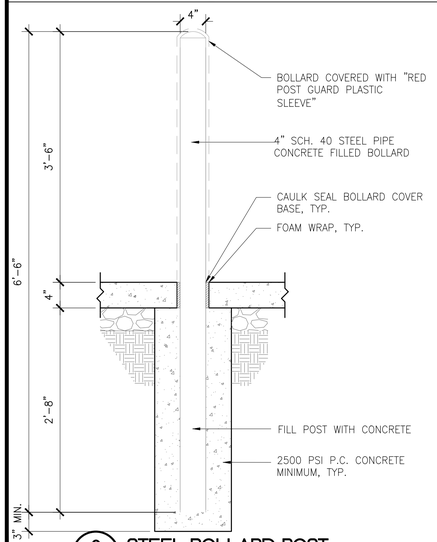
3 C6.1 LIGHTPOLE BASE DETAIL (30' MAX. POLE HEIGHT)
SCALE: NONE

STOOP NOTE:
REFER TO CIVIL DRAWINGS FOR DOOR STOOP LOCATIONS. DOWEL DOWNTURNED SLAB INTO EXISTING FOUNDATION W/ #4 DEFORMED STEEL REINFORCING BARS x 12" LONG (6" EMBED EACH SIDE) AT 12" O.C. GROUT FULL.

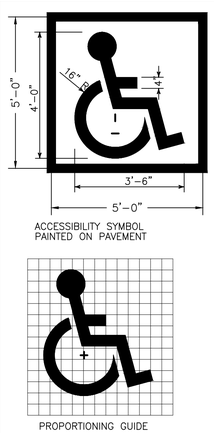


5 C6.1 CONCRETE WALK DETAIL
SCALE: NONE

NOTES
1. CONTROL JOINTS TO BE PLACED AT SPACING EQUAL TO SIDEWALK WIDTH
2. PLACE PREFORMED EXPANSION JOINTS AT 20' O.C. MAX.
3. WHEN WALK IS ADJACENT TO THE BUILDING PROVIDE 1/2" PREFORMED EXPANSION JOINT.
4. REFER TO CIVIL DRAWINGS FOR SIDEWALK GRADES.

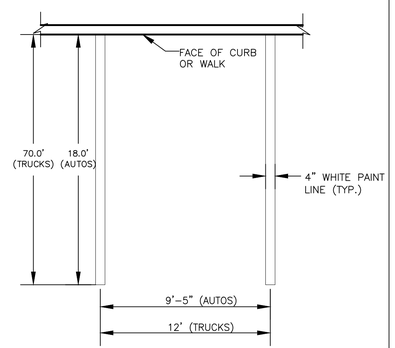


6 C6.1 STEEL BOLLARD POST
SCALE: 1/2" = 1'–0"



NOTES:
PROVIDE 2 COATS OF BLUE PAINT, ALLOWING 1 WEEK MINIMUM BETWEEN COATS.

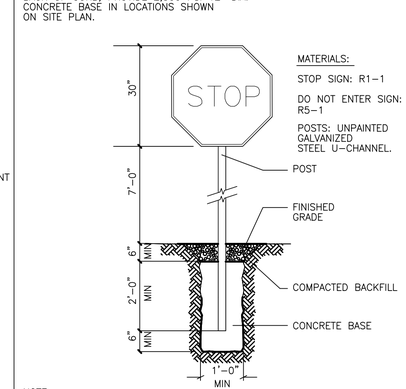
7 C6.1 HANDICAP SYMBOL
SCALE: NONE



NOTES:
1. PROVIDE 2 COATS OF PAINT ON ALL SURFACES, ALLOWING 1 WEEK MINIMUM BETWEEN COATS.
2. PAINT COLOR SHALL BE WHITE OR SHALL MATCH EXISTING DEVELOPMENT

8 C6.1 TYPICAL PARKING SPACE DETAIL
SCALE: NONE

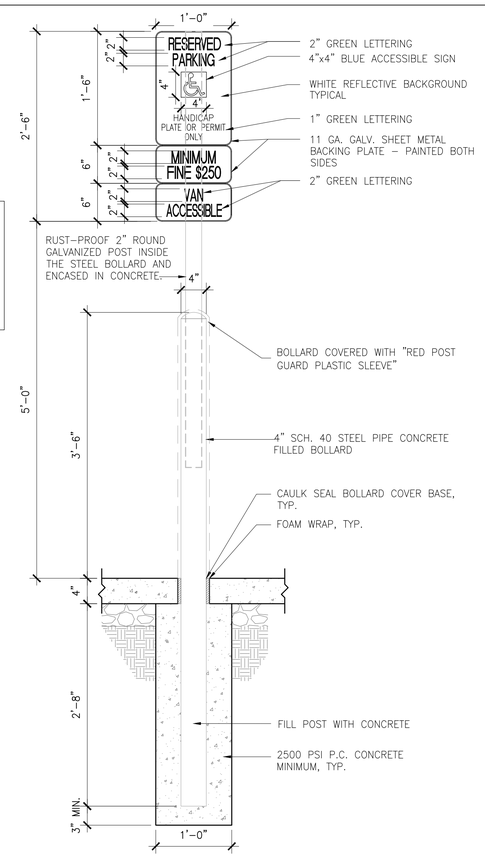
INSTALLATION:
POSTS ARE TO BE LOCATED 2' FROM THE BACK OF CURB, PROVIDE 2,500 PSI 12" DIA. CONCRETE BASE IN LOCATIONS SHOWN ON SITE PLAN.



NOTE:
1. CONSTRUCT SIGN IN ACCORDANCE WITH DOT SPECIFICATIONS.

9 C6.1 STOP SIGN DETAIL
SCALE: NTS

NOTES:
SIGNS SHALL BE MOUNTED TO POST WITH GALVANIZED OR CADMIUM PLATE 5/16" DIAMETER STEEL BOLTS, NUTS AND WASHERS. THE CONTRACTOR SHALL SUPPLY AND INSTALL 5/16" NYLON WASHERS BETWEEN BOLT HEADS AND SIGN FACE TO PROTECT FINISH.



1 C6.1 ADA SIGNAGE
SCALE: N.T.S.

CLIENT:
CIRCLE K
GREAT LAKES REGION
935 E. TALLMADGE AVE.
AKRON, OH 44310
(330) 630-6300

CONSULTANT:
Wellert ENGINEERS • SURVEYORS
5136 Beach Road • Medina, Ohio 44256
t: 330.239.2699
WWW.WELLERT.COM

NO.	DATE	REVISION DESCRIPTION
A	04/25/25	ISSUED FOR PLANNING COMMISSION APPROVAL

STATE OF OHIO ROBERT W. WELLERT E-59085 REGISTERED PROFESSIONAL ENGINEER

PROJECT TITLE
PROPOSED NEW CIRCLE K STORE

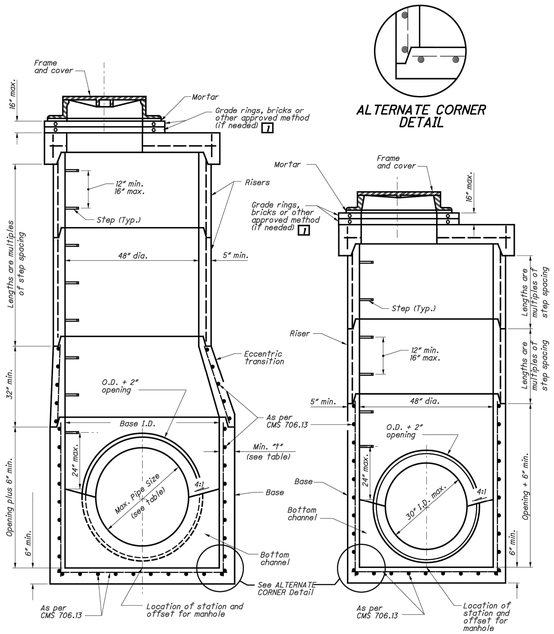
SITE ADDRESS:
34273 LORAIN RD N.
RIDGEVILLE, OHIO 44039

SCALE:	AS NOTED
DATE:	02/12/2024
DESIGNED BY:	ID
DRAWN BY:	ID
CHECKED BY:	ID
FILE NAME:	230907–DETAILS.dwg
JOB NUMBER:	230907

DRAWING TITLE:
SITE DETAILS & SPECIFICATIONS

SHEET NO:
C6.1

File: p:\230907\production\dwg\details\230907–details.dwg Sheet: 4/25/2025 11:35 AM (lwellert) Plotted: 4/25/2025 4:29 PM (lwellert) Plotstyle: (NIC Standard.ctb) Scale: (1:1) Page Setup: (------)



ALTERNATE CORNER DETAIL

60" to 108" PRECAST BASE
SEE TABLE FOR MAXIMUM PIPE SIZES

48" PRECAST BASE
FOR 30" AND SMALLER PIPE

SECTION VIEWS OF REINFORCED PRECAST MANHOLES

NOTES

GENERAL: *With normal soil and site conditions, this standard precast manhole may be used for any required manhole depth.*

Cast and assemble sections of the precast manhole with either a tongue or a groove ends up. Lift holes may be provided in each section for handling.

Leave handling device for the flat slab in place.

TOP: *Provide a flat slab for this section unless an eccentric cone is specified.*

TRANSITION (OR REDUCER): *This section can be either eccentric cone or flat slab.*

BASE: *Manhole No. 3 is shown with a monolithic floor and riser which may be cast in one or two operations. A permissible alternate is to cast and ship the floor and barrel separately. Provide openings for inlet and outlet pipes, either when the unit is cast or later, to meet project requirements. Bottom channels may be formed of concrete, or the base or field constructed as shown on* ***SCD MH-1 and MH-2.***

RISER SECTIONS: *Openings for 18" and smaller inlet pipes may be either prefabricated or cut in the field provided the sides of the pipe at the springline do not project into the manhole.*

CONNECTIONS: *Connections between precast manhole sections and pipes on sanitary sewers may be sealed with resilient connectors conforming to ASTM C 923.*

JOINT SEAL: *Furnish resilient seal between precast manhole sections on sanitary sewers and flexible gasket joints per CMS 706.11.*

OPENINGS: *Ensure pipe openings are the O.D. of the pipe being supplied plus 2" when fabricated or field cut. Fill any voids per C&MS 611.*

MATERIALS: *Provide materials for bases and other precast sections, including reinforcement not specified here, that meet the requirements of CMS 706.13.*

DROP PIPE: *When specified on the plans, construct drop pipe as shown on* ***SCD MH-2.***

STEPS, FRAMES AND COVERS: *Meet the requirements shown on* ***SCD MH-1.***

TOP SLAB REBAR: *Use epoxy coated reinforcing steel within the Top slab.*

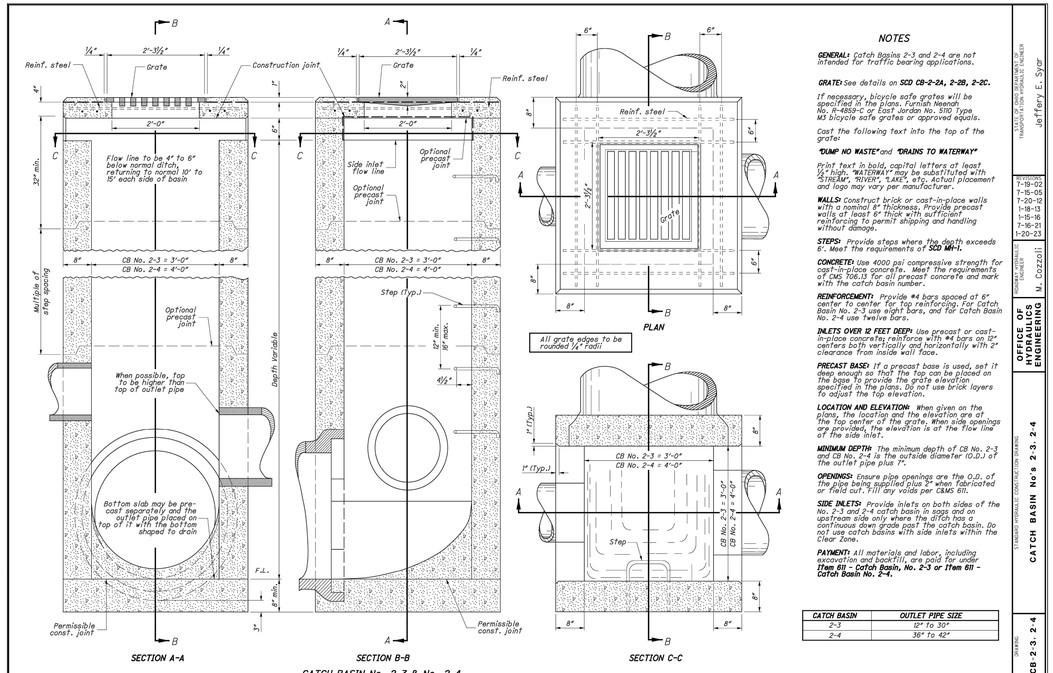
LEGEND

7 *Reconstruction to grade only. Approved materials are kept on file by the Office of Materials Management.*

MAXIMUM PIPE SIZES

BASE I.D.	MIN. "T"	MAX. PIPE SIZE
60"	5"	36"
72"	6"	48"
84"	7"	54"
90"	7½"	60"
96"	8"	66"
108"	9"	72"

STATE OF OHIO DEPARTMENT OF TRANSPORTATION HYDRAULIC ENGINEER — Jeffery E. Syar
REVISIONS: 7-19-02, 7-15-05, 1-20-06, 7-20-12, 1-18-13, 1-15-16, 7-16-21
CHIEF, HYDRAULICS ENGINEER — M. Cozzoli
OFFICE OF HYDRAULICS ENGINEERING
STANDARD HYDRAULIC CONSTRUCTION DRAWING — MANHOLE No. 3
DRAWING: MH-3
1 / 2



SECTION A-A — SECTION B-B — PLAN — SECTION C-C

CATCH BASIN No. 2-3 & No. 2-4

CATCH BASIN	OUTLET PIPE SIZE
2-3	12" To 30"
2-4	36" To 42"

NOTES

GENERAL: *Catch Basins 2-3 and 2-4 are not intended for traffic bearing applications.*

GRATE: *See details on* ***SCD CB-2-2A, 2-2B, 2-2C.***

If necessary, bicycle safe grates will be specified in the plans. Furnish Neenah No. R-4659-C or East Jordan No. 5110 Type M3 bicycle safe grates or approved equals.

Cast the following text into the top of the grate:

"DUMP NO WASTE" *and* ***"DRAINS TO WATERWAY"***

Print text in bold, capital letters at least ½" high. "WATERWAY" may be substituted with "STREAM", "RIVER", "LAKE", etc. Actual placement and logo may vary per manufacturer.

WALLS: *Construct brick or cast-in-place walls with a nominal 8" thickness. Provide precast walls at least 6" thick with sufficient reinforcing to permit shipping and handling without damage.*

STEPS: *Provide steps where the depth exceeds 6'. Meet the requirements of* ***SCD MH-1.***

CONCRETE: *Use 4000 psi compressive strength for cast-in-place concrete. Meet the requirements of CMS 706.02 for all precast concrete and mark with the catch basin number.*

REINFORCEMENT: *Provide #4 bars spaced at 6" center to center for Top reinforcing. For Catch Basin No. 2-3 use eight bars, and for Catch Basin No. 2-4 use Twelve bars.*

INLETS OVER 12 FEET DEEP: *Use precast or cast-in-place concrete; reinforce with #4 bars on 12" centers both vertically and horizontally with 2" clearance from inside wall face.*

PRECAST BASE: *If a precast base is used, set it deep enough so that the top can be placed on the base to provide the grate elevation specified in the plans. Do not use brick layers to adjust the top elevation.*

LOCATION AND ELEVATION: *When given on the plans, the location and the elevation are at the Top center of the grate. When side openings are provided, the elevation is at the flow line of the side inlet.*

MINIMUM DEPTH: *The minimum depth of CB No. 2-3 and CB No. 2-4 is the outside diameter O.D.) of the outlet pipe plus 1".*

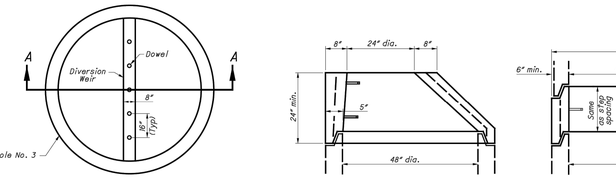
OPENINGS: *Ensure pipe openings are the O.D. of the pipe being supplied plus 2" when fabricated or field cut. Fill any voids per C&MS 611.*

SIDE INLETS: *Provide inlets on both sides of the No. 2-3 and 2-4 catch basin in sags and on upstream side only where the ditch has a continuous down grade past the catch basin. Do not use CB 2-3's or 2-4's within the Clear Zone. The flow line should be 4" to 6" below normal ditch returning to normal 10' to 15' each side of the inlet.*

PAYMENT: *All materials and labor, including excavation and backfilling, are paid for under* ***Item 611 - Catch Basin, No. 2-3 or Item 611 - Catch Basin No. 2-4.***

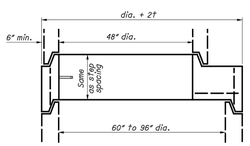
STATE OF OHIO DEPARTMENT OF TRANSPORTATION HYDRAULIC ENGINEER — Jeffery E. Syar
REVISIONS: 7-19-02, 7-15-05, 7-20-12, 1-18-13, 1-15-16, 7-16-21, 1-20-23
CHIEF, HYDRAULICS ENGINEER — M. Cozzoli
OFFICE OF HYDRAULICS ENGINEERING
STANDARD HYDRAULIC CONSTRUCTION DRAWING — CATCH BASIN No's 2-3, 2-4
DRAWING: CB 2-3, 2-4
1 / 1

2 / C6.2 ODOT CATCH BASIN NO. 2-3 DETAIL (ON-SITE WORK)
SCALE: NONE



MANHOLE NO. 3 W/ __" BASE I.D. AND __" WEIR
(NTS)

ALTERNATE ECCENTRIC CONE TOP
(Only if specified)



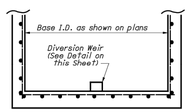
FLAT SLAB TRANSITION

NOTES

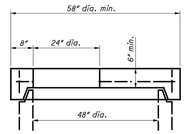
MANHOLE NO. 3 W/__" BASE I.D. AND __" DIVERSION WEIR: *Furnish manhole base with precast diversion weir or construct diversion weir from Structural Concrete, 4000 psi compressive strength concrete or Brick and Masonry Units conforming to CMS 611, A bottom channel section for the manhole is not required when a diversion weir is specified on the plans.*

Place diversion weir perpendicular to flow of inflowing trunk sewer. Dowel concrete or masonry units into the base of the manhole to a depth of 3" using epoxy coated #4 reinforcing bars. Start dowels at the center of the diversion weir and space 16" on center across the entire weir.

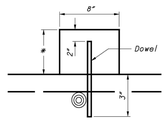
All materials and labor, including excavation and backfill, are paid for at the contract price for ***ITEM 611 - MANHOLE NO. 3 WITH __" BASE I.D. AND __" DIVERSION WEIR.***



SECTION A-A
(NTS)

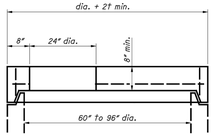


FLAT SLAB TOP



* Furnish weir height as shown in plans.

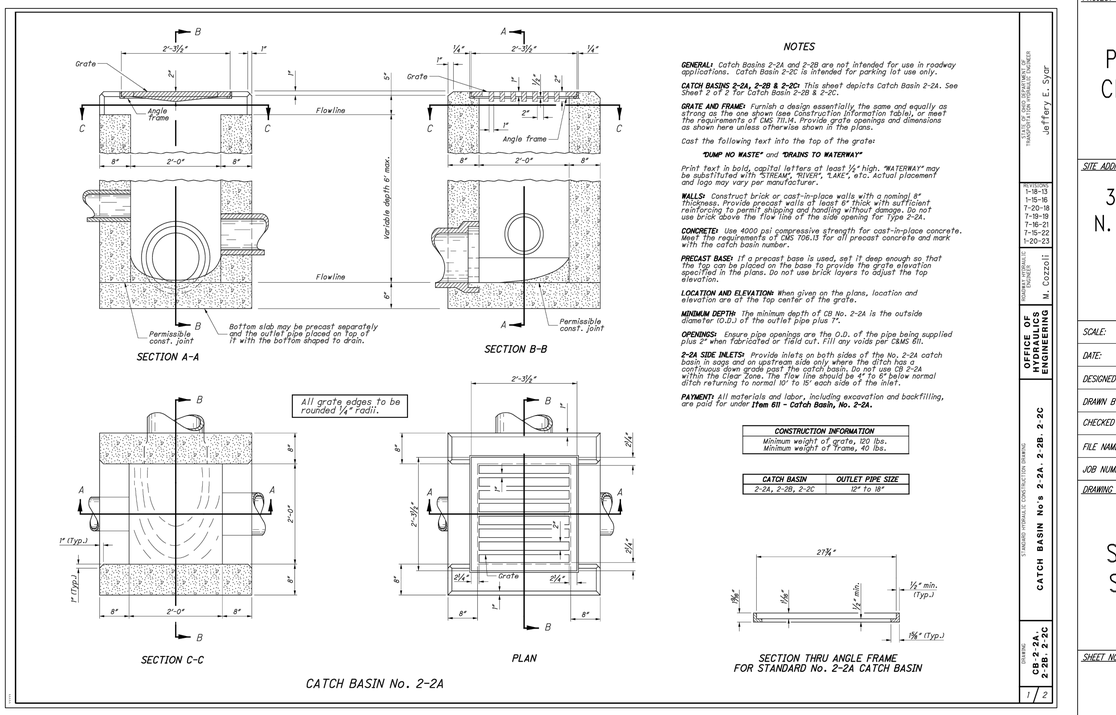
DIVERSION WEIR DETAIL
(NTS)

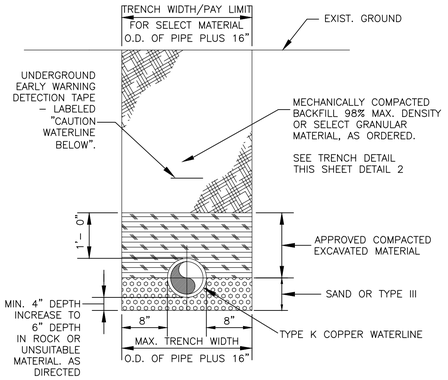


FLAT SLAB TOP

STATE OF OHIO DEPARTMENT OF TRANSPORTATION HYDRAULIC ENGINEER — Jeffery E. Syar
REVISIONS: 7-18-13, 1-15-16, 7-20-18, 7-19-19, 7-16-21, 7-15-22, 1-20-23
CHIEF, HYDRAULICS ENGINEER — M. Cozzoli
OFFICE OF HYDRAULICS ENGINEERING
STANDARD HYDRAULIC CONSTRUCTION DRAWING — MANHOLE No. 3
DRAWING: MH-3
2 / 2

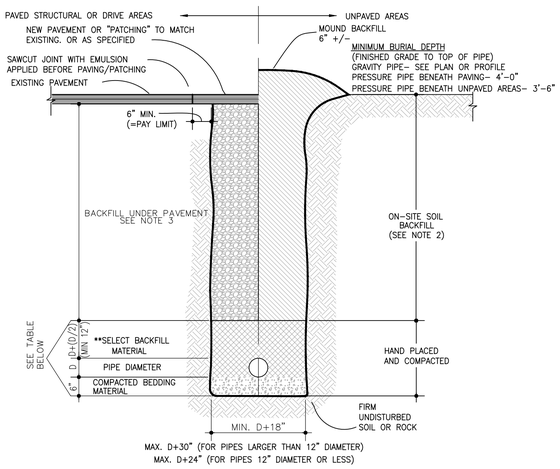
1 / C6.2 ODOT MANHOLE NO. 3 DETAIL (ON-SITE WORK)
SCALE: N.T.S.


Grate
Angle frame
2'-3½"
1"
2"
Flowline
8"
2'-0"
Variable depth 6" max.
Permissible const. joint
Bottom slab may be precast separately and the outlet pipe placed on top of it with the bottom shaped to drain.
All grate edges to be rounded ¼" radii.
CONSTRUCTION INFORMATION
Minimum weight of grate, 120 lbs.
Minimum weight of frame, 90 lbs.
CATCH BASIN
OUTLET PIPE SIZE
2-2A, 2-2B, 2-2C
12" To 18"
2'-3½"
2½"
2¼"
Grate
2¼"
2½"
2'-0"
8"
1"
2'-0"
1" (Typ.)
1" (Typ.)
2'-0"
8"
2'-0"
8"
2'-0"
8"



NOTE:
UTILIZE ODOT 57 CRUSHED STONE AGGREGATE WITHIN ROAD RIGHT OF WAY OR BENEATH PAVEMENT AREAS.

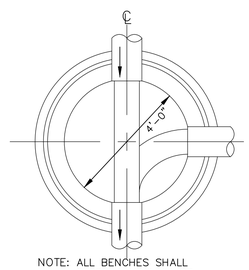
1 C6.3 WATER SERVICE BEDDING AND BACKFILL
SCALE: N.T.S.



2 C6.3 TRENCH AND BACKFILL
SCALE: N.T.S.

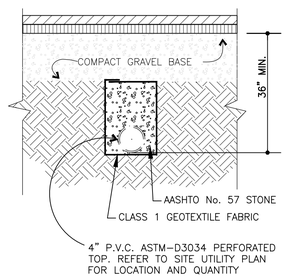
CONDITION AND PIPE	**SELECT BACKFILL MATERIAL	BEDDING MATERIAL
DUCTILE IRON PIPE IN "ORDINARY SOIL"	NO. 8 CRUSHED STONE AASHTO M 43	NO. 8 CRUSHED STONE AASHTO M 43
RCP PIPE IN "ORDINARY SOIL"	NO. 8 CRUSHED STONE AASHTO M 43	NO. 8 CRUSHED STONE AASHTO M 43
ALL PIPE OVER BEDROCK OR LEDGE	NO. 8 CRUSHED STONE AASHTO M 43	NO. 8 CRUSHED STONE AASHTO M 43
PIPE IN LOOSE GRANULAR SOILS, SOFT CLAY OR MUCK	CONCRETE f'c=2000 psi	CONCRETE f'c=2000 psi
RCP PIPE IN CLAY	NO. 8 CRUSHED STONE AASHTO M 43	NO. 8 CRUSHED STONE AASHTO M 43
PLASTIC–ALL	NO. 8 CRUSHED STONE AASHTO M 43	NO. 8 CRUSHED STONE AASHTO M 43

NOTES
1. ALL MATERIAL TO BE PLACED IN MAXIMUM 6" LIFTS AND COMPACTED BEFORE PLACING NEXT LIFT.
2. ON–SITE SOIL BACKFILL IN UNPAVED AREAS SHALL BE NATIVE SOILS FREE OF ROCKS LARGER THAN 3 INCHES IN DIAMETER, CONCRETE FRAGMENTS, STEEL REBAR AND OTHER DELETERIOUS MATERIALS.
3. TRENCH BACKFILL UNDER PAVED AREAS SHALL BE NO. 8 CRUSHED STONE AASHTO M43.
4. COMPACTION REQUIREMENTS FOR COHESIVE BACKFILLS UNDER PAVEMENT OR STRUCTURES SHALL BE 98% STANDARD PROCTOR PER ASTM D698.
5. COMPACTION REQUIREMENTS FOR COHESIVE BACKFILLS NOT UNDER PAVEMENT OR STRUCTURES SHALL BE 95% STANDARD PROCTOR PER ASTM D698.
6. COMPACTION REQUIREMENTS FOR GRANULAR BACKFILLS UNDER PAVEMENT OR STRUCTURES SHALL BE 90% RELATIVE DENSITY PER ASTM D2049.
7. COMPACTION REQUIREMENTS FOR GRANULAR BACKFILLS NOT UNDER PAVEMENT OR STRUCTURES SHALL BE 85% RELATIVE DENSITY PER ASTM D2049.
8. INSTALL CLAY DAMS AROUND PIPE AT 100' INTERVALS FOR ALL TRENCHES WITH A GRADE GREATER THAN 4% AND/OR WHERE GROUNDWATER IS APPARENT.



NOTE: ALL BENCHES SHALL SLOPE A MINIMUM OF 1" PER FOOT TOWARD FLOW CHANNEL

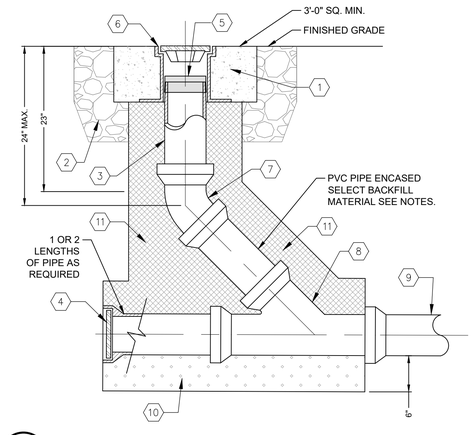
3 C6.3 PLAN OF TYPICAL MANHOLE INVERTS
SCALE: N.T.S.



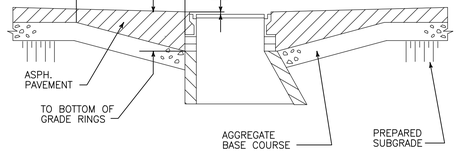
4 C6.3 SUBDRAIN DETAIL
SCALE: N.T.S.

KEY NOTES
1. CONCRETE, MATCH PAVEMENT SPEC.
2. 6" (MIN.) AGGREGATE BASE
3. 6" DIA. CLEAN–OUT PIPE
4. C.I. STOPPER SEALED WITH MASTIC
5. PVC CLEAN–OUT CAP
6. CAST–IRON MONUMENT BOX, EJIW 1570 WITH 2965A LID NEENAH No. R–1973 FRAME WITH LID
7. 45° BEND
8. WYE
9. SEWER
10. COMPACTED BEDDING MATERIAL – No. 8 CRUSHED STONE
11. SELECT BACKFILL MATERIAL – No. 8 CRUSHED STONE

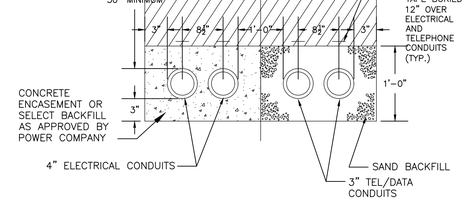
1. USE 6" SDR–35 PVC PIPE FOR STORM CLEANOUTS
2. USE 6" SDR–26 PIPE FOR SANITARY CLEANOUTS



8 C6.3 CLEAN OUT DETAIL (SAN AND STM SEWER)
SCALE: N.T.S.

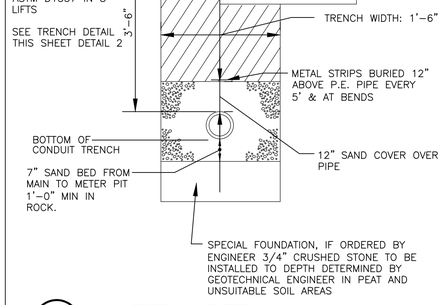


5 C6.3 TYPICAL PAVEMENT SECTION • CATCH BASIN/MANHOLE
SCALE: N.T.S.

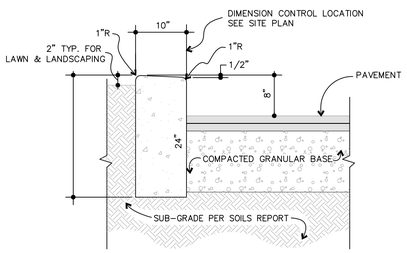


NOTES:
1. REFERENCE UTILITY PLAN FOR NUMBER AND LOCATION OF CONDUITS TO BE INSTALLED.
2. REFERENCE LOCAL POWER AND PHONE COMPANY DETAILS AND SPECIFICATIONS FOR INSTALLATION, MATERIALS, PULLWIRE, BEDDING, BACKFILL, AND INSPECTION REQUIREMENTS.
3. SEE UTILITY PLAN FOR NUMBER OF CONDUIT LINES

6 C6.3 ELECTRICAL, TELEPHONE CONDUIT BANK TRENCH DETAIL
SCALE: N.T.S.



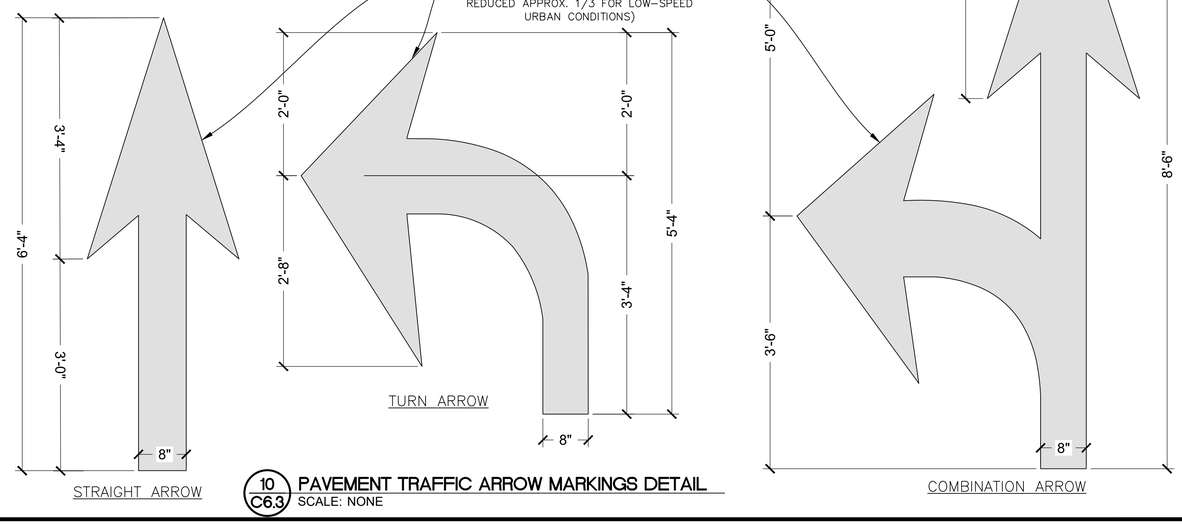
7 C6.3 GAS TRENCH DETAIL
SCALE: N.T.S.



CURB NOTES
1. REMOVE FORMS AS EARLY AS POSSIBLE. BRUSH TOP AND FACE OF CURBS TO REMOVE ALL IMPERFECTIONS, TYPICAL OF ALL FORM WORK.
2. ALL CURB RADII SHALL BE TRUE ARCS.
3. PROVIDE LIGHT BROOM FINISH ON ALL EXTERIOR CONCRETE.
4. PROVIDE CONTROL JOINTS AT 10 FEET O.C. MAXIMUM FOR 8" CURB AND 1/2" PREFORMED EXPANSION JOINTS AT 50' O.C. MAX.
5. CURB TO MATCH EXISTING PROFILE AND DIMENSIONS OF ADJOINING EXISTING CURB.

9 C6.3 8" HIGH STANDARD HEADER CURB
SCALE: N.T.S.

NOTE: PAINT SHALL CONFORM TO DOT STANDARD. APPLY 2 COATS, ALLOWING 1 WEEK MINIMUM BETWEEN COATS.



10 C6.3 PAVEMENT TRAFFIC ARROW MARKINGS DETAIL
SCALE: NONE

CLIENT:
CIRCLE K
GREAT LAKES REGION
935 E. TALLMADGE AVE.
AKRON, OH 44310
(330) 630-6300

CONSULTANT:
Wellert ENGINEERS • SURVEYORS
5136 Beach Road • Medina, Ohio 44256
t: 330.239.2699
WWW.WELLERT.COM

NO.	DATE	REVISION DESCRIPTION
A	04/25/25	ISSUED FOR PLANNING COMMISSION APPROVAL

STATE OF OHIO
ROBERT W. WELLERT
E–59085
REGISTERED PROFESSIONAL ENGINEER

PROJECT TITLE
PROPOSED NEW CIRCLE K STORE

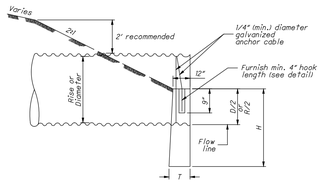
SITE ADDRESS:
34273 LORAIN RD
N. RIDGEVILLE, OHIO
44039
LORAIN COUNTY

SCALE:	AS NOTED
DATE:	02/12/2024
DESIGNED BY:	ID
DRAWN BY:	ID
CHECKED BY:	ID
FILE NAME:	230907–DETAILS.dwg
JOB NUMBER:	230907

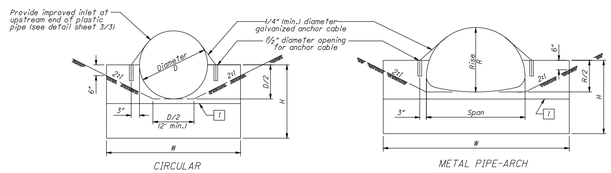
DRAWING TITLE:
SITE DETAILS & SPECIFICATIONS

SHEET NO:
C6.3

File: p:\2.230907\production\dwg\details\230907-details.dwg Saved: 4/25/2025 11:55 AM (xwilert) Plotted: 4/25/2025 4:29 PM (xwilert) Plotstyle: CWC Standard.ctb) Scale: (1:1) Page Setup: (-----)



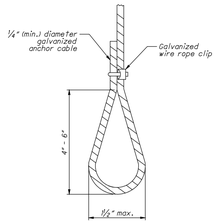
PLASTIC & METAL PIPE PROFILE
W/ ANCHOR CABLE OPTION



CIRCULAR

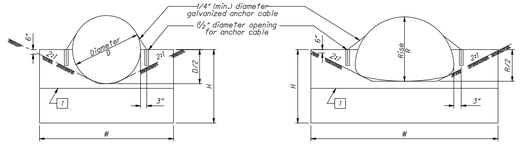
METAL PIPE-ARCH

PLASTIC & METAL PIPE END TREATMENT "A"
W/ ANCHOR CABLE OPTION



ANCHOR CABLE DETAIL

T Top surface of 6" inlet headwall extension



METAL PIPE END TREATMENT "B"
W/ ANCHOR CABLE OPTION

NOTES

Tightly Wrap galvanized anchor cable one time completely around the circumference of the conduit. Furnish hook at least 4" long at the ends of the anchor cable as shown above.

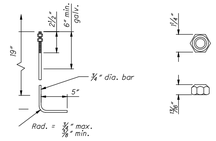
Cut galvanized anchor cable to length required.

Form or drill 9/16" diameter openings for anchor cable at locations shown. Alternatively, place anchor cable in wet concrete at the dimensions shown above to secure conduit to headwall.

Fill any openings made for anchor cables with grout after the cables are placed to a taut fit.

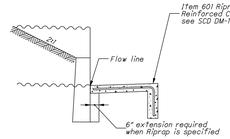
Secure cables such that they are taut after the grout or concrete has cured.

STATE OF OHIO DEPARTMENT OF TRANSPORTATION
07-20-18
DATE
SIGNATURE
SEE 1-1-18 MBR
07-30-2007
07-20-2012
01-18-2013
01-16-2015
07-17-2015
01-15-2016
01-13-2017
07-20-2018
HW-2.1
HALF-HEIGHT HEADWALLS FOR CORRUGATED METAL PIPE AND PLASTIC PIPE
OFFICE OF STRUCTURAL ENGINEERING
2 / 4

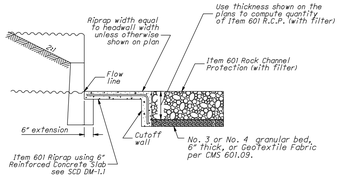


ANCHOR BOLT

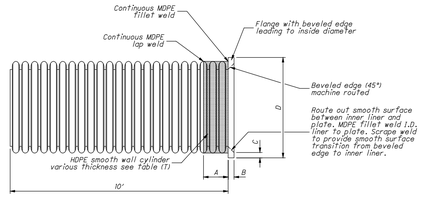
NUT
(ASTM A 325 and A 153)



INLET CHANNEL PROTECTION
DETAIL



OUTLET CHANNEL PROTECTION DETAIL



HDPE IMPROVED INLET - TYPE A CONDUITS

PIPE SIZE	A	B	C	D	T
12 in.	6.00 in.	0.50 in.	1.00 in.	15.15 in.	0.13 in.
15 in.	6.00 in.	0.63 in.	1.26 in.	18.73 in.	0.19 in.
18 in.	6.00 in.	0.75 in.	1.50 in.	22.57 in.	0.25 in.
24 in.	8.00 in.	1.00 in.	2.00 in.	30.08 in.	0.25 in.
30 in.	8.00 in.	1.25 in.	2.50 in.	37.50 in.	0.38 in.
36 in.	10.00 in.	1.50 in.	3.00 in.	45.00 in.	0.38 in.
42 in.	10.00 in.	1.75 in.	3.50 in.	51.90 in.	0.38 in.
48 in.	10.00 in.	2.00 in.	4.00 in.	59.60 in.	0.38 in.
60 in.	12.00 in.	2.50 in.	5.00 in.	74.50 in.	0.38 in.

NOTES

GENERAL: Provide a riprap reinforced concrete slab according to SCD DM-1.1 if the pipe is depressed or it is specified in the plan. Payment for the slab is made per square yard of Item 601 Riprap using 6" Reinforced Concrete Slab and includes the cost of the cutoff wall.

This drawing is for cast-in-place half-height concrete headwalls. Precast half-height headwalls are only approved for round conduits with a maximum conduit diameter of 78". When precast headwalls are furnished, provide openings for the anchor cable as shown and fill with grout after placement of the anchor cable. If anchor bolts are to be used with a precast headwall, fill the anchor cable openings with grout.

CONCRETE: Use 4000 psi compressive strength concrete for headwall. Concrete quantities are based on headwalls without the 6" extension under the channel protection.

ANCHOR BOLTS: Furnish bolts (see detail sheet 2/3) that meet ASTM A 307 for anchoring both ends of metal pipe. The top 6" min. of the bolt must be galvanized according to ASTM A 153. Cost of anchors is included in the price bid per foot of Item 611.

Headwall dimensions are based on end treatment "A" for pipe sizes up to and including 120", 114"x71", and 66"x51", and on end treatment "B" for sizes over and including 132", 13'-5"x9'-4", and 7'-3"x5'-3".

PLASTIC PIPE: Plastic pipe may not be available in all the sizes specified on this drawing.

ANCHOR CABLE: Furnish galvanized anchor cable (see detail sheet 2/4 & 3/4) that meets ASTM A 1023 for anchoring both ends of plastic or metal pipe. Wire rope clip must be galvanized according to ASTM A 153. Cost of anchor cable and wire rope clip is included in the unit price bid per foot of Item 611.

EYEBOLTS: Furnish eyebolts (see detail sheet 3/4) that meet ASTM A 489 for anchoring both ends of metal or plastic pipe. The eyebolts must be galvanized according to ASTM A 153. Furnish eyebolts with a min. I.D. eye of 1-1/2" and a min. shank length of 3". Cost of eyebolts is included in the price bid per foot of Item 611.

IMPROVED INLET FOR HDPE PIPE: Furnish improved inlet at upstream end of culverts and open-ended storm sewers using plastic pipe when specified in the plans.

Use HDPE smooth cap and flange materials according to ASTM D 3350 345464C.

STATE OF OHIO DEPARTMENT OF TRANSPORTATION
07-20-18
DATE
SIGNATURE
SEE 1-1-18 MBR
07-30-2007
07-20-2012
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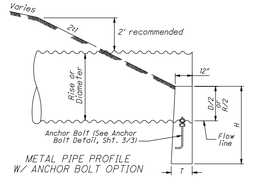
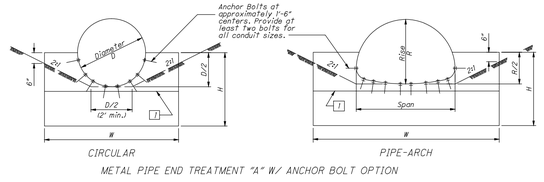
01-16-2015
07-17-2015
01-15-2016
01-13-2017
07-20-2018
HW-2.1
HALF-HEIGHT HEADWALLS FOR CORRUGATED METAL PIPE AND PLASTIC PIPE
OFFICE OF STRUCTURAL ENGINEERING
4 / 4



METAL PIPE PROFILE
W/ ANCHOR BOLT OPTION



CIRCULAR

PIPE-ARCH

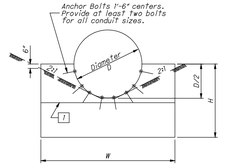
METAL PIPE END TREATMENT "A" W/ ANCHOR BOLT OPTION

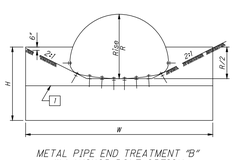
CAST-IN-PLACE HW FOR CORRUGATED METAL PIPE & PLASTIC PIPE (English)

CIRCULAR					PIPE ARCH						PIPE ARCH					
D	W	H	T	CONC. cu. yds.	SPAN	RISE	W	H	T	CONC. cu. yds.	SPAN	RISE	W	H	T	CONC. cu. yds.
					2.67"x½" Corrugations											
12"	2'-0"	3'-0"	12"	0.21							#81"	59"	12'-4"	5'-5"	15"	2.14
15"	2'-6"	3'-2"	12"	0.27	17"	13"	3'-0"	3'-0"	12"	0.31	83"	63"	13'-0"	5'-7"	17"	2.50
18"	3'-0"	3'-3"	12"	0.33	21"	15"	3'-6"	3'-0"	12"	0.35	95"	67"	14'-0"	5'-9"	20"	3.14
21"	3'-6"	3'-4"	12"	0.39	24"	18"	4'-0"	3'-2"	12"	0.43	103"	71"	15'-0"	5'-11"	22"	3.54
24"	4'-0"	3'-5"	12"	0.46	28"	20"	4'-6"	3'-3"	12"	0.48	112"	75"	16'-0"	6'-1"	24"	3.96
27"	4'-6"	3'-8"	12"	0.53	35"	24"	5'-6"	3'-5"	12"	0.61	117"	79"	17'-9"	6'-3"	25"	4.89
30"	5'-0"	3'-9"	12"	0.60	42"	29"	6'-6"	3'-7"	12"	0.73	128"	83"	18'-0"	6'-5"	26"	5.01
33"	5'-6"	3'-10"	12"	0.68	49"	33"	7'-6"	3'-9"	12"	0.90	137"	87"	19'-0"	6'-7"	27"	5.45
36"	6'-0"	4'-0"	12"	0.76	57"	38"	9'-0"	4'-0"	12"	1.10	142"	91"	20'-9"	6'-9"	27"	6.31
39"	6'-6"	4'-2"	12"	0.84	64"	43"	10'-0"	4'-4"	12"	1.31			6"x2" Corrugations			
42"	7'-0"	4'-3"	12"	0.92	71"	47"	11'-0"	4'-6"	12"	1.54			(18" Corner Radius)			
48"	8'-0"	4'-6"	12"	1.10	#77"	52"	11'-8"	5'-3"	12"	1.84	#6'-1"	4'-7"	11'-8"	5'-7"	12"	1.89
54"	9'-3"	4'-9"	12"	1.33	#83"	57"	12'-4"	5'-5"	15"	2.46	#6'-4"	4'-9"	12'-0"	5'-8"	14"	2.12
60"	10'-6"	5'-0"	12"	1.78			6"x2" Corrugations				#6'-9"	4'-11"	12'-4"	5'-9"	15"	2.42
66"	11'-9"	5'-9"	12"	2.06			(31" Corner Radius)				#7'-0"	5'-1"	12'-8"	5'-10"	16"	2.44
72"	13'-0"	6'-0"	12"	2.37	13'-3"	9'-4"	23'-11"	7'-11"	32"	9.63	7'-3"	5'-3"	13'-11"	5'-11"	17"	2.69
78"	14'-3"	6'-3"	14"	2.84	13'-6"	9'-6"	24'-5"	8'-0"	32"	10.12	7'-8"	5'-5"	13'-2"	6'-0"	18"	2.77
84"	15'-6"	6'-6"	14"	3.30	14'-0"	9'-8"	24'-10"	8'-1"	33"	10.33	7'-11"	5'-7"	14'-0"	6'-1"	20"	3.15
90"	16'-9"	6'-9"	16"	4.00	14'-2"	9'-10"	25'-9"	8'-2"	33"	10.87	8'-2"	5'-9"	14'-8"	6'-2"	21"	3.45
96"	18'-0"	7'-0"	16"	4.40	14'-5"	10'-0"	26'-1"	8'-3"	33"	11.39	8'-7"	5'-11"	15'-0"	6'-3"	22"	3.75
102"	19'-3"	7'-3"	18"	5.28	14'-11"	10'-2"	26'-9"	8'-4"	34"	11.68	8'-10"	6'-1"	15'-10"	6'-4"	23"	4.15
108"	20'-6"	7'-6"	20"	6.21	15'-4"	10'-4"	26'-11"	8'-5"	34"	11.96	9'-4"	6'-3"	16'-0"	6'-5"	24"	4.65
114"	21'-9"	7'-9"	22"	7.25	15'-7"	10'-6"	27'-9"	8'-6"	34"	12.51	9'-6"	6'-5"	16'-10"	6'-6"	26"	4.93
120"	23'-0"	8'-0"	24"	8.38	15'-10"	10'-8"	28'-7"	8'-7"	35"	13.06	9'-9"	6'-7"	17'-9"	6'-7"	27"	5.41
#126"	23'-0"	8'-3"	26"	8.64	16'-3"	10'-10"	28'-8"	8'-8"	35"	13.34	10'-3"	6'-9"	17'-10"	6'-8"	27"	5.45
132"	23'-0"	8'-6"	28"	9.23	16'-6"	11'-0"	29'-1"	8'-9"	35"	13.94	10'-8"	6'-11"	17'-11"	6'-9"	27"	5.59
138"	24'-1"	8'-9"	30"	10.50	17'-0"	11'-2"	29'-8"	8'-10"	36"	14.24	10'-11"	7'-1"	18'-10"	6'-10"	28"	5.97
144"	25'-2"	9'-0"	32"	11.89	17'-2"	11'-4"	30'-7"	8'-11"	36"	14.84	11'-5"	7'-3"	18'-11"	6'-11"	28"	6.12
150"	26'-4"	9'-3"	34"	13.38	17'-5"	11'-6"	31'-5"	9'-0"	36"	15.42	11'-7"	7'-5"	19'-9"	7'-0"	28"	6.52
156"	27'-5"	9'-6"	36"	15.01	17'-11"	11'-8"	31'-7"	9'-1"	37"	15.83	11'-10"	7'-7"	20'-9"	7'-1"	29"	6.94
162"	28'-7"	9'-9"	38"	16.75	18'-1"	11'-10"	32'-5"	9'-2"	37"	16.43	12'-4"	7'-9"	20'-10"	7'-2"	29"	7.12
168"	29'-8"	10'-0"	40"	18.61	18'-7"	12'-0"	32'-6"	9'-3"	37"	16.78	12'-6"	7'-11"	21'-8"	7'-3"	29"	7.53
174"	30'-9"	10'-3"	42"	20.28	18'-9"	12'-2"	33'-4"	9'-4"	38"	17.43	12'-8"	8'-1"	22'-7"	7'-4"	30"	7.95
180"	31'-11"	10'-6"	43"	21.87	19'-3"	12'-4"	33'-5"	9'-5"	38"	17.78	12'-10"	8'-4"	23'-7"	7'-5"	30"	8.48
186"	33'-0"	10'-9"	44"	23.54	19'-6"	12'-6"	34'-5"	9'-6"	38"	18.49	13'-5"	8'-5"	23'-7"	7'-6"	30"	8.63
192"	34'-2"	11'-0"	45"	25.30	19'-8"	12'-8"	35'-3"	9'-7"	39"	19.19	13'-11"	8'-7"	23'-7"	7'-7"	31"	8.81
198"	35'-3"	11'-3"	46"	27.12	19'-11"	12'-10"	36'-3"	9'-8"	39"	19.95	14'-1"	8'-9"	25'-1"	7'-8"	31"	9.29
204"	36'-4"	11'-6"	47"	29.15	20'-5"	13'-0"	36'-3"	9'-9"	39"	20.30	14'-3"	8'-11"	25'-6"	7'-9"	31"	9.78
210"	37'-6"	11'-9"	48"	31.03	20'-7"	13'-2"	37'-2"	9'-10"	40"	21.05	14'-10"	9'-1"	25'-6"	7'-10"	32"	10.25
216"	38'-7"	12'-0"	49"	33.43			3"x1" Corrugations				15'-4"	9'-3"	25'-6"	7'-11"	32"	10.25
222"	39'-9"	12'-3"	50"	36.26	40"	31"	6'-6"	3'-7"	12"	0.70	15'-6"	9'-5"	26'-5"	8'-0"	32"	10.74
228"	40'-10"	12'-6"	51"	37.52	46"	36"	7'-8"	3'-9"	12"	0.85	15'-8"	9'-7"	27'-5"	8'-1"	33"	11.28
234"	42'-0"	12'-9"	52"	39.86	53"	41"	9'-0"	4'-0"	12"	1.06	15'-10"	9'-10"	28'-5"	8'-2"	33"	12.00
240"	43'-1"	13'-0"	53"	42.28	60"	46"	10'-0"	4'-4"	12"	1.27	16'-5"	9'-11"	28'-5"	8'-3"	33"	12.09
246"	44'-2"	13'-3"	54"	44.83	66"	51"	11'-0"	4'-8"	12"	1.54	16'-7"	10'-1"	29'-4"	8'-4"	34"	12.64
252"	45'-4"	13'-6"	55"	47.44	#73"	55"	11'-8"	5'-3"	12"	1.81	--	--	--	--	--	--

* Determine channel configuration for pipe sizes between end treatment "A" and end treatment "B" by 2H slopes passing through a point 6" below the top and at each side of the headwall. For end treatment "B", 2H slopes are tangent to pipe.

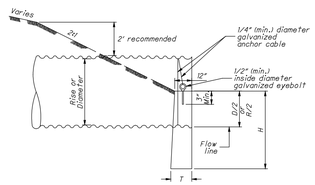
T Top surface of 6" inlet headwall extension



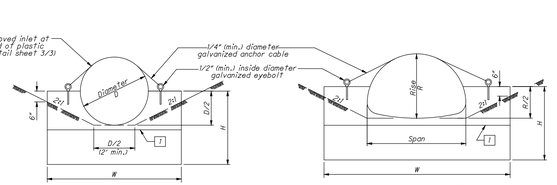


METAL PIPE END TREATMENT "B"
W/ ANCHOR BOLT OPTION

STATE OF OHIO DEPARTMENT OF TRANSPORTATION
07-20-18
DATE
SIGNATURE
SEE 1-1-18 MBR
07-30-2007
07-20-2012
01-18-2013
01-16-2015
07-17-2015
01-15-2016
01-13-2017
07-20-2018
HW-2.1
HALF-HEIGHT HEADWALLS FOR CORRUGATED METAL PIPE AND PLASTIC PIPE
OFFICE OF STRUCTURAL ENGINEERING
1 / 4



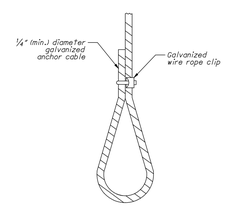
PLASTIC & METAL PIPE PROFILE
W/ ANCHOR CABLE EYE BOLT OPTION



CIRCULAR

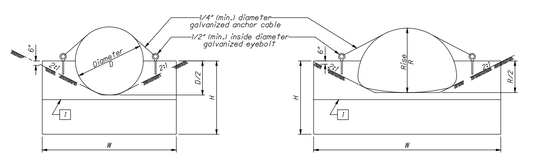
METAL PIPE-ARCH

PLASTIC & METAL PIPE END TREATMENT "A"
W/ ANCHOR CABLE EYE BOLT OPTION



ANCHOR CABLE DETAIL FOR EYEBOLT OPTION

T Top surface of 6" inlet headwall extension



METAL PIPE END TREATMENT "B"
W/ ANCHOR CABLE EYE BOLT OPTION

NOTES

Drill openings a min. of 3" deep for eyebolts at the locations shown. Insert entire length of Bolt shank into opening. Fill openings with grout and allow to harden before securing anchor cable. Alternatively, place eyebolts in wet concrete at the locations shown above.

Tightly Wrap galvanized anchor cable one time completely around the circumference of the conduit.

Cut galvanized anchor cable to length required.

Place cable through eyebolt and form a loop as shown in the above detail. Ensure the cable is pulled to a tight fit and secured with a galvanized wire rope clip.

STATE OF OHIO DEPARTMENT OF TRANSPORTATION
07-20-18
DATE
SIGNATURE
SEE 1-1-18 MBR
07-30-2007
07-20-2012
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01-16-2015
07-17-2015
01-15-2016
01-13-2017
07-20-2018
HW-2.1
HALF-HEIGHT HEADWALLS FOR CORRUGATED METAL PIPE AND PLASTIC PIPE
OFFICE OF STRUCTURAL ENGINEERING
3 / 4

1 C6.4 ODOT HALF-HEIGHT HEADWALL DETAILS
SCALE: NONE

CLIENT:
CIRCLE K
GREAT LAKES REGION
935 E. TALLMADGE AVE.
AKRON, OH 44310
(330) 630-6300

CONSULTANT:
Wellert
ENGINEERS • SURVEYORS
5136 Beach Road • Medina, Ohio 44256
t. 330.239.2699
WWW.WELLERT.COM

NO.	DATE	REVISION DESCRIPTION
A	04/25/25	ISSUED FOR PLANNING COMMISSION APPROVAL

STATE OF OHIO
ROBERT W. WELLERT
E-59085
REGISTERED
PROFESSIONAL ENGINEER

PROJECT TITLE

PROPOSED NEW CIRCLE K STORE

SITE ADDRESS:

34273 LORAIN RD
N. RIDGEVILLE, OHIO
44039
LORAIN COUNTY

SCALE:	AS NOTED
DATE:	02/12/2024
DESIGNED BY:	ID
DRAWN BY:	ID
CHECKED BY:	ID
FILE NAME:	230907-DETAILS.dwg
JOB NUMBER:	230907

DRAWING TITLE:

SITE DETAILS & SPECIFICATIONS

SHEET NO:

C6.4

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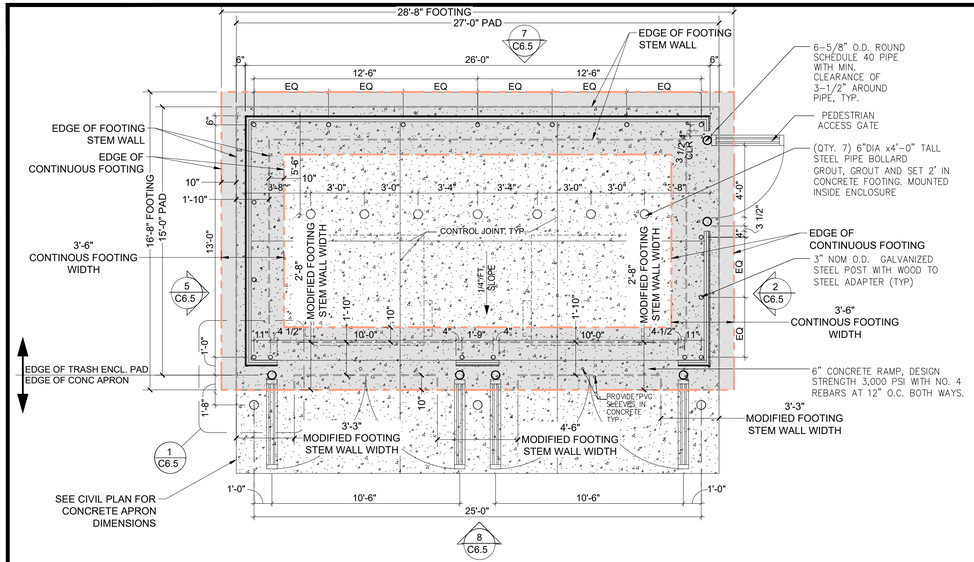
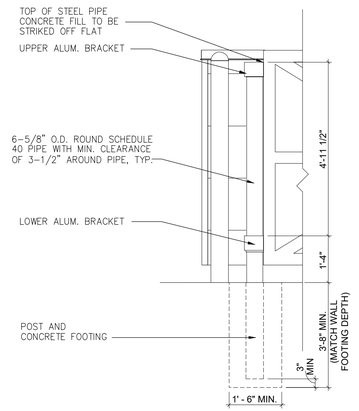


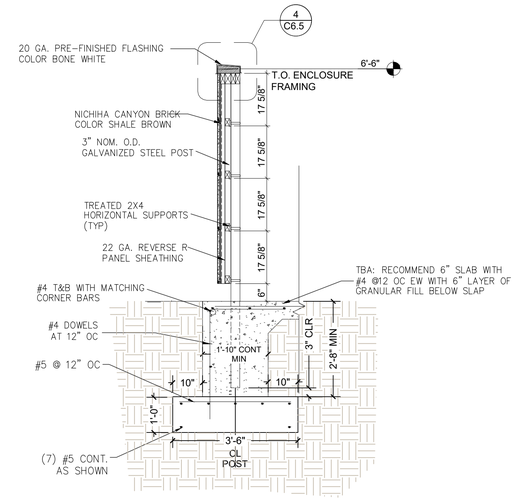
TRASH ENCLOSURE (PLAN) 9

1/4" = 1'-0"



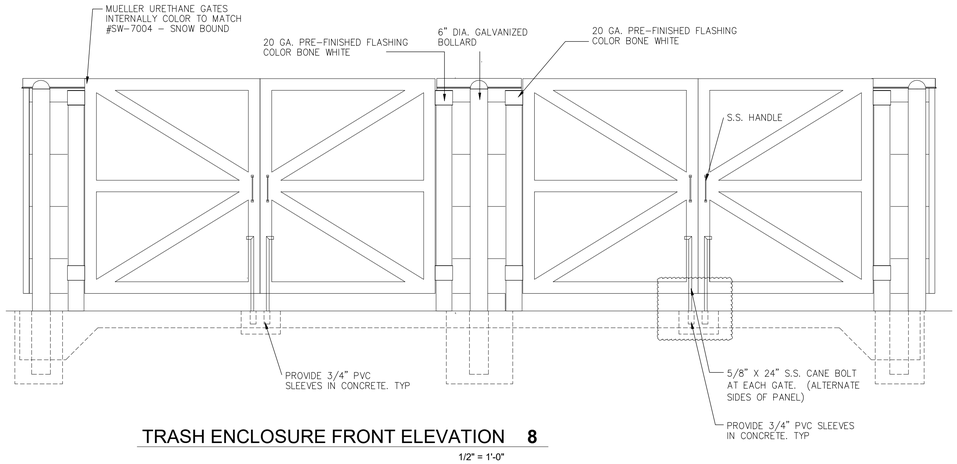
GATE BOLLARD FOUNDATION DETAIL 6

1/2" = 1'-0"



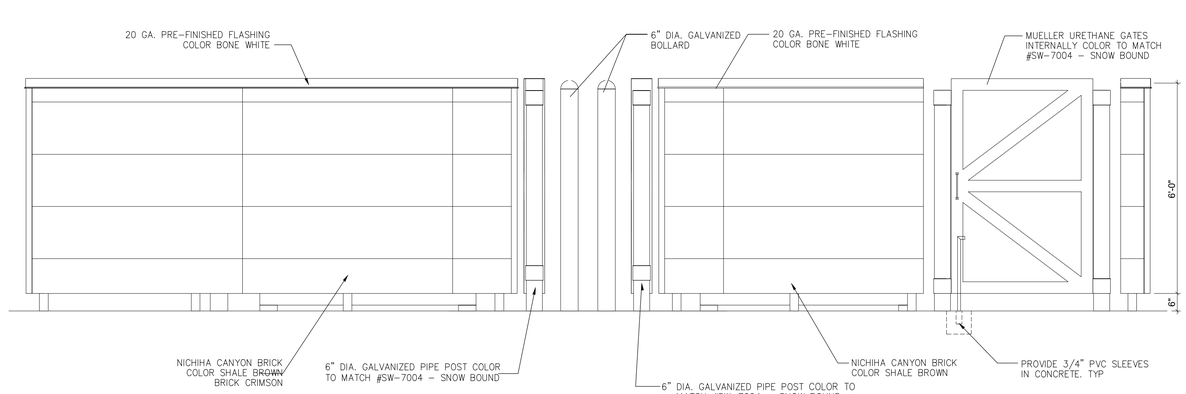
TRASH ENCLOSURE FOUNDATION WALL SECTION 3

1/2" = 1'-0"



TRASH ENCLOSURE FRONT ELEVATION 8

1/2" = 1'-0"

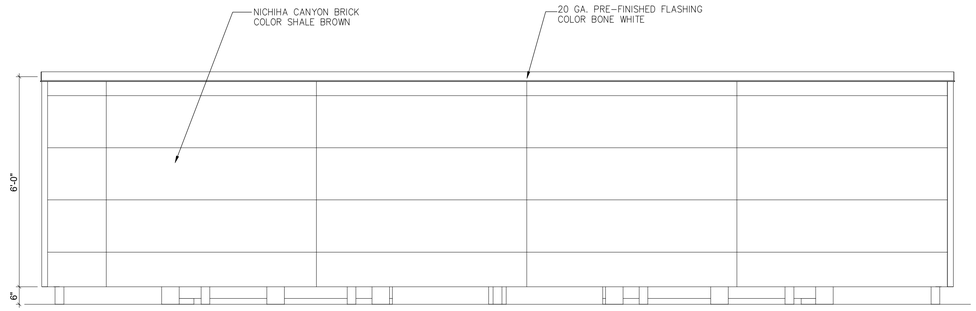


TRASH ENCLOSURE SIDE ELEVATION 5

1/2" = 1'-0"

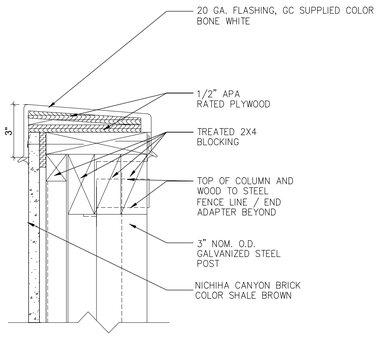
TRASH ENCLOSURE SIDE ELEVATION 2

1/2" = 1'-0"



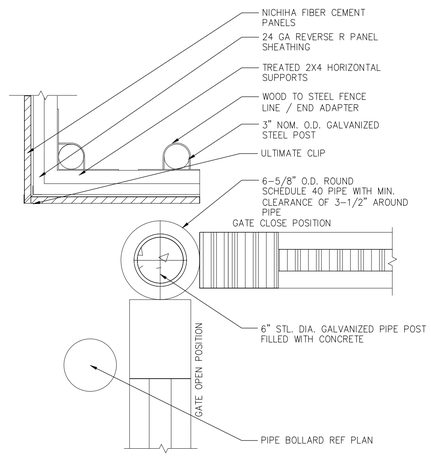
TRASH ENCLOSURE REAR ELEVATION 7

1/2" = 1'-0"



DETAIL COPING 4

3" = 1'-0"



ENCLOSURE GATE HINGE 1

1 1/2" = 1'-0"

CLIENT:
CIRCLE K
GREAT LAKES REGION
935 E. TALLMADGE AVE.
AKRON, OH 44310
(330) 630-6300

CONSULTANT:
Wellert ENGINEERS • SURVEYORS
5136 Beach Road • Medina, Ohio 44256
t: 330.239.2699
WWW.WELLERT.COM

NO.	DATE	REVISION DESCRIPTION
A	10/18/24	ISSUED FOR PLANNING COMMISSION APPROVAL
B	04/25/25	ISSUED FOR PLANNING COMMISSION APPROVAL

STATE OF OHIO — ROBERT W. WELLERT E-59085 — REGISTERED PROFESSIONAL ENGINEER

PROJECT TITLE

PROPOSED NEW CIRCLE K STORE

SITE ADDRESS:

34273 LORAIN RD
N. RIDGEVILLE, OHIO
44039
LORAIN COUNTY

SCALE:	AS NOTED
DATE:	02/12/2024
DESIGNED BY:	ID
DRAWN BY:	ID
CHECKED BY:	ID
FILE NAME:	230907-DETAILS.dwg
JOB NUMBER:	230907

DRAWING TITLE:

SITE DETAILS & SPECIFICATIONS

SHEET NO:

C6.5

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DRIVEN BY AIR.

PCL

CSC SERVICEWORKS AIR TOWER

AIR TOWER

CSC SERVICEWORKS AIR TOWER

The latest exclusive Air Tower design, constructed to meet the exacting and testing demands of the modern motorist while also providing an attractive appearance.

The stainless steel cabinet offers long life and the ability to resist the harsh environment while keeping the unit looking sleek. All the components, from the housing to the tire inflator and hoses, are built for ease of use, reliability, and long life.

KEY BENEFITS & FEATURES

- Quick and easy installation
- Low life-cycle costs
- Easy to operate for the user
- Default to safe setting
- Payment options - Coin or credit card
- Versatile - adjustable vend time
- PSI increase/decrease set buttons
- Audible and visual end-of-cycle signals
- Stainless steel cabinets
- 21 mm LCD transflective LCD
- Lighted sign box
- 33 ft. coiled polyurethane hose
- Dual angled chuck

MODEL OPTIONS

- Water hose
- Vacuum
- On board heater
- Custom graphical design/branded

OPERATIONAL SPECIFICATIONS

- IP rating: final test results pending
- Auto zero drift correction
- Auto-start inflation
- Coin count totalizer
- RS232 output
- 2 spare control outputs 12vdc - compressor, water/vacuum
- 4 spare inputs - 12vdc Opto-isolated-coin mech inputs, etc.

DRIVEN BY AIR.

PCL

CSC SERVICEWORKS AIR TOWER

AIR TOWER

TECHNICAL SPECIFICATIONS

Dimensions
- -Height: 63.3"
- -Width: 15.7"
- -Depth: 11.8"

Hose Lengths
- -Air hose: 33' coiled polyurethane

Environmental
- -Operating temperature: -4°F to 158°F
- -Humidity range: up to 95% RH non-condensing

Electrical Interface
- -Voltage nominal: 120 Vac 60 Hz
- -Min: 75 Vac, Max: 140 Vac
- -Current: head only max 0.7A
- -Compressor and head: 6.1A

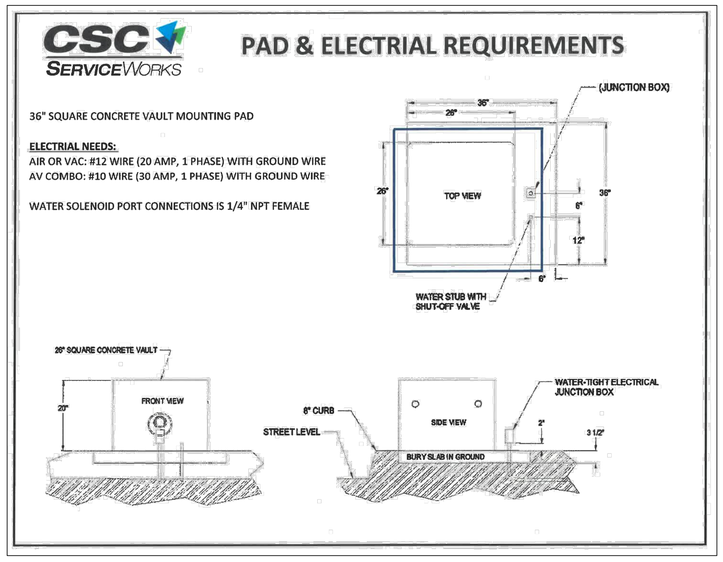
Pressure Measurement
- -Accuracy: to +/- 0.5% of full scale reading
- -Display resolution: 1 psi
- -Max. inlet pressure: 217 psi
- -Max. inflation pressure: 145 psi

Inflation Speed
- -Inflation flow: 10-88 cfm @ 145 psi

Compliance
- -EMC Directive EN12645:2014

Pneumatic Components Limited (PCL) USA
6324 Greens Rd.
Humble, TX 77396
T: (281) 446-7300
F: (281) 619-5613
www.pcltireinflation.com

A HORNGROUP BRAND



1 C6.6 AIR UNIT DETAIL
SCALE: NONE

CLIENT:

CIRCLE K

CIRCLE K
GREAT LAKES REGION
935 E. TALLMADGE AVE.
AKRON, OH 44310
(330) 630-6300

CONSULTANT:

Wellert
ENGINEERS • SURVEYORS
5136 Beach Road • Medina, Ohio 44256
t: 330.239.2699
WWW.WELLERT.COM

NO.	DATE	REVISION DESCRIPTION

STATE OF OHIO
ROBERT W. WELLERT
E-59085
REGISTERED
PROFESSIONAL ENGINEER

PROJECT TITLE:

PROPOSED NEW CIRCLE K STORE

SITE ADDRESS:

34273 LORAIN RD
N. RIDGEVILLE, OHIO
44039
LORAIN COUNTY

SCALE:	AS NOTED
DATE:	02/12/2024
DESIGNED BY:	ID
DRAWN BY:	ID
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FILE NAME:	230907-DETAILS.dwg
JOB NUMBER:	230907

DRAWING TITLE:

SITE DETAILS & SPECIFICATIONS

SHEET NO:

C6.6

File: p:\230907\production\dwg\details\230907-details.dwg Saved: 4/25/2025 11:35 AM (wellert) Plotted: 4/25/2025 4:30 PM (wellert) Pltstyle: (NC Standard.ctb) Scale: (1:1) Page Setup: (----)

GENERAL NOTES:

1. ALL WORK IS TO BE PERFORMED PER REQUIREMENTS OF THE STATE BUILDING CODE AND STATE DEPARTMENT OF TRANSPORTATION (D.O.T.).
2. ALL WORK SHALL BE PERFORMED PER OSHA HEALTH AND SAFETY GUIDELINES.
3. PROVIDE AND MAINTAIN SERVICEABLE VEHICULAR ACCESS THROUGHOUT CONSTRUCTION OF THIS PROJECT.
4. THE CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS PRIOR TO STARTING ANY WORK AND SHALL BE RESPONSIBLE FOR ALL WORK AND MATERIALS INCLUDING THOSE FURNISHED BY SUBCONTRACTORS AND OWNER.
5. DISCREPANCIES BETWEEN PORTIONS OF THE CONTRACT DOCUMENTS, DRAWINGS AND SPECIFICATIONS ARE NOT INTENDED. THE CONTRACTOR IS TO IDENTIFY ANY SUCH DISCREPANCIES WITH THE ENGINEER PRIOR TO COMMENCING WORK.
6. STATED DIMENSIONS TAKE PRECEDENCE OVER GRAPHICS, DO NOT SCALE DRAWINGS TO DETERMINE LOCATIONS. THE OWNER SHALL BE NOTIFIED OF ANY DISCREPANCIES PRIOR TO CONTINUING WORK.
7. EXISTING ELEVATIONS AND LOCATIONS OF ITEMS TO BE JOINED SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. IF THEY DIFFER FROM THOSE SHOWN ON THE DRAWINGS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT MODIFICATIONS CAN BE MADE BEFORE PROCEEDING WITH THE WORK.
8. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE ALL EXISTING UTILITIES WHETHER SHOWN HEREIN OR NOT AND TO PROTECT THEM FROM DAMAGE. THE CONTRACTOR SHALL BEAR THE EXPENSE OF REPAIR OR REPLACEMENT OF UTILITIES OR OTHER PROPERTY DAMAGED BY OPERATIONS IN CONJUNCTION WITH THE EXECUTION OF THE WORK.
9. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF ALL PRODUCTS, MATERIALS AND PLAN SPECIFICATIONS TO THE OWNER AND LOCAL UTILITY COMPANIES AS REQUIRED FOR REVIEW AND APPROVAL PRIOR TO FABRICATION OR DELIVERY TO THE SITE. ALLOW A MINIMUM OF 14 WORKING DAYS FOR REVIEW.
10. FOR CONSTRUCTION DETAILS NOT SHOWN USE THE MANUFACTURER'S APPROVED SHOP DRAWINGS / DATA SHEETS IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS.
11. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE, PROTECTION, AND CONTINUATION OF SERVICE FOR ALL UTILITIES SERVING THE SITE OUTSIDE THE WORK AREA.
12. ANY MODIFICATIONS TO THE WORK AS SHOWN ON THE PLANS MUST HAVE PRIOR WRITTEN APPROVAL BY THE ENGINEER AND MUNICIPALITY.
13. THE DESIGN ENGINEER SHALL NOT BE RESPONSIBLE FOR THE MEANS, METHODS, PROCEDURES, TECHNIQUES OR SEQUENCES OF CONSTRUCTION NOT SPECIFIED HEREIN, NOR FOR THE SAFETY ON THE JOB SITE, NOR SHALL THE DESIGN ENGINEER BE RESPONSIBLE FOR THE CONTRACTOR'S FAILURE TO CARRY OUT THE WORK IN ACCORDANCE WITH CONTRACT DOCUMENTS.
14. ANY APPARENT DISCREPANCIES OR QUESTIONS IN CONTRACT DOCUMENTS ARE TO BE BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE IMMEDIATELY.
15. ALL EXCAVATION, BACKFILL, SUBGRADE PREPARATION, BASE COURSE, BITUMINOUS PAVEMENT, AND CONCRETE WORK (INCLUDING CURBS, SIDEWALK AND RELATED ITEMS) SHALL COMPLY WITH GOVERNING CODES AND REGULATIONS.
16. TRUCKING ON OR ABOUT THE SITE WILL BE PERMITTED ONLY WITHIN REASONABLE LIMITS AND THE CONTRACTOR SHALL NOT UNREASONABLY ENCUMBER THE PREMISES WITH EQUIPMENT AND MATERIALS. STORAGE AND STAGING AREAS SHALL BE CONFINED TO SUCH LIMITS AS MAY BE JOINTLY AGREED UNPON BY OWNER AND CONTRACTOR.
17. THE CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE AT ALL TIMES AND SHALL BACKFILL AND GRADE EXCAVATED AREAS SO AS TO ELIMINATE PONDING ON THE SITE.
18. ALL WORK IS SUBJECT TO THE DIRECT INSPECTION OF THE OWNER OR THEIR DULY AUTHORIZED REPRESENTATIVE.
19. ANY DEFECTS IN THE CONSTRUCTION INCLUDING MATERIALS AND WORKMANSHIP SHALL BE REPLACED OR CORRECTED BY REMOVAL AND REPLACEMENT OR OTHER APPROVED METHODS PRIOR TO ACCEPTANCE BY THE OWNER WITHOUT ANY EXTRA COST TO THE OWNER.
20. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS REQUIRED BY STATE AND LOCAL AGENCIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL POST ALL BONDS, PAY ALL FEES, PROVIDE PROOF OF INSURANCE AND PROVIDE TRAFFIC CONTROL NECESSARY FOR THIS WORK.
21. VISIBLE ABOVE-GROUND UTILITIES ON SITE HAVE BEEN SHOWN ON THE SURVEY. CONTRACTOR IS TO FIELD-VERIFY ELEVATIONS, QUANTITIES AND LOCATIONS OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.
22. CONTRACTOR SHALL VERIFY LOCATION AND ELEVATION OF ALL PROPOSED CONNECTIONS TO EXISTING FACILITIES PRIOR TO COMMENCING WORK. IT WILL BE THE CONTRACTORS RESPONSIBILITY TO NOTIFY ENGINEER OF ANY DISCREPANCIES.

EARTHWORK NOTES:

1. A GEOTECHNICAL REPORT FOR THIS PROJECT IS AVAILABLE. PLEASE REFER TO THE REPORT.
2. REMOVE SOILS AS NECESSARY TO COMPLETE PROPOSED CONSTRUCTION. IF CONTAMINATED SOILS ARE ENCOUNTERED, IT SHALL BE STOCKPILED PER DIRECTION OF OWNER'S REPRESENTATIVE. CONTAMINATED SOILS SHALL BE PLACED ON AND COVERED WITH VISQUEEN. A BERM SHALL BE CONSTRUCTED AROUND ENTIRE STOCKPILE TO HOLD VISQUEEN DOWN AND PREVENT SURFACE WATER AND RAIN FROM ENTERING SOIL PILE. ALL SEALS OR OVERLAPS IN THE VISQUEEN COVERING SHALL BE SECURED. UNLESS OTHERWISE DIRECTED, USE ALL "CLEAN" EXCAVATED SOILS AS FILL ON SITE. IF DISCOVERED, ANY CONTAMINATED SOILS THAT CANNOT BE UTILIZED ON THE SITE SHALL BE STOCKPILED FOR FURTHER EVALUATION BY OWNER'S REPRESENTATIVE. "CLEAN" SOIL SHALL BE STOCKPILED SEPARATELY FROM CONTAMINATED SOIL AND SHALL NOT BE MIXED.
3. ON-SITE SOIL INTENDED FOR USE AS FILL IS TO BE FREE OF ORGANICS, TOPSOIL, FROST, LARGE ROCKS, CONCRETE FRAGMENTS, STEEL REBAR AND ANY OTHER DELETERIOUS MATERIALS. THE IN-SITU, NON-ORGANIC SOILS ON SITE MAY BE LIME-TREATED PER SPECIFICATIONS AND CAN BE USED AS FILL FOR THIS PROJECT.
4. PRIOR TO USE, THE APPROVED FILL MATERIAL SHOULD BE TESTED AS OUTLINED IN ASTM D-698 TO DETERMINE THE MAXIMUM DRY DENSITY AND OPTIMUM MOISTURE CONTENT FOR SILTY OR COHESIVE SOILS, OR MAXIMUM INDEX DENSITY (γ_{max}) PER ASTM D-4253 FOR CLEAN GRANULAR SOILS. FOR EACH CHANGE IN BORROW MATERIAL, ADDITIONAL TESTS SHOULD BE PERFORMED.
5. FILL OR BACKFILL CONSISTING OF LOW PLASTICITY SOILS SHOULD BE PLACED IN LOOSE LIFT THICKNESS OF 8 INCHES (MAXIMUM) AND BE COMPACTED TO AT LEAST 98% OF THE STANDARD PROCTOR (ASTM D-698) MAXIMUM DRY DENSITY AT A MOISTURE CONTENT WITHIN ±2 PERCENT OF OPTIMUM.
6. FILL OR BACKFILL CONSISTING OF GRANULAR MATERIAL SHOULD BE PLACED IN LOOSE LIFT THICKNESS OF 8 INCHES (MAXIMUM) AND BE COMPACTED TO AT LEAST 90% RELATIVE DENSITY (Dd) PER ASTM D4254.
7. UTILITY TRENCH BACKFILL AND SMALL PAVEMENT AREAS WHICH ARE NOT ACCESSIBLE TO HEAVY COMPACTORS IS TO BE PLACED IN LOOSE LIFT THICKNESS OF 6 INCHES MAXIMUM AND BE COMPACTED TO AT LEAST 90% RELATIVE DENSITY (Dd) PER ASTM D4254. NO COMPACTIVE EFFORTS ARE PERMITTED WITHIN 16 INCHES ABOVE PIPES OR CONDUITS OR WHERE PROHIBITED BY PIPE OR CONDUIT MANUFACTURER'S INSTALLATION REQUIREMENTS.
8. ALL FILLING OPERATIONS SHOULD BE OBSERVED BY A QUALIFIED SOILS TECHNICIAN. FIELD DENSITY TESTS SHOULD BE PERFORMED TO ASSURE SOIL COMPACTION MEETS SPECIFICATIONS.
9. COHESIVE FILL IN LAWN AREAS SHALL BE COMPACTED TO 90% STANDARD PROCTOR (ASTM D-698) AT A MOISTURE CONTENT OF OPTIMUM ±3%.
10. COMPACTION TESTING OF FILL MATERIAL UNDER PROPOSED PAVEMENT AREAS SHALL BE PERFORMED AS DIRECTED BY OWNERS REPRESENTATIVE AND THE CITY ENGINEERING DEPARTMENT. FILL WHICH FAILS TO MEET THE APPLICABLE COMPACTION REQUIREMENTS SHALL BE CORRECTED BEFORE PAVING WILL BE PERMITTED.

PROOF ROLL NOTES:

A. PROOF ROLL ALL PROPOSED STRUCTURE AND PAVEMENT AREAS PRIOR TO PLACEMENT OF BASE MATERIAL, PAVEMENT OR SLABS.

B. A LOADED, TANDEM-AXLE DUMP TRUCK, GROSS WEIGHT ≥ 50,000 POUNDS, IS TO BE USED.

C. SPEED IS TO BE SLOW ENOUGH TO COMFORTABLY WALK ALONG SIDE THE TRUCK DURING THE PROOF ROLL.

D. ANY AREA EXHIBITING RUTTING OR "ROLLING" OF ONE INCH OR MORE IS TO BE REJECTED.

E. REJECTED AREAS ARE TO BE RE-COMPACTED AND RE-TESTED. FAILURE OF THE SECOND PROOF ROLL WILL RESULT IN THE NECESSITY OF OVEREXCAVATION AND BACKFILL OF THE REJECTED AREA.

F. THE ENGINEER IS TO PROVIDE REMEDIAL RECOMMENDATIONS AS MAY BE NECESSARY.

G. DO NOT PROOF ROLL OVER UNDERGROUND PIPING, ELECTRICAL CONDUITS, OR UNDERGROUND STORAGE TANKS.

SITE WORK NOTES:

1. TRAFFIC SHALL BE MAINTAINED ON ALL ADJOINING STREETS AND THROUGHOUT SITE AT ALL TIMES.
2. TRAFFIC BARRICADES AND FENCE MUST BE IN PLACE PRIOR TO INITIATION OF ANY SITE CONSTRUCTION ACTIVITIES
3. THE CONTRACTOR SHALL BE ADVISED THAT ALL EXCAVATION IS CONSIDERED UNCLASSIFIED.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MEANS, METHODS, AND MATERIALS OF CONSTRUCTION TO COMPLETE PROPOSED CONSTRUCTION.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE IMPORTATION OF ANY BORROW MATERIAL NECESSARY TO COMPLETE THE JOB.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE OFF-SITE DISPOSAL OF ANY AND ALL EXCESS OR UNSUITABLE MATERIAL NOT USED ON THE JOB SITE UNLESS OTHERWISE NOTED.
7. PROPOSED ELEVATIONS SHOWN SHALL NOT BE CHANGED WITHOUT APPROVAL OF THE ENGINEER.
8. ALL SITE WORK, MATERIALS OF CONSTRUCTION, AND CONSTRUCTION METHODS SHALL COMPLY WITH LOCAL MUNICIPALITY, LOCAL COUNTY, AND THE STATE D.O.T. MATERIAL AND CONSTRUCTION SPECIFICATIONS.
9. PROPER COORDINATION SHALL BE PERFORMED BY THE CONTRACTOR TO INSURE THAT ALL UTILITY COMPANY, LOCAL MUNICIPALITY, AND LOCAL COUNTY STANDARDS FOR MATERIALS AND CONSTRUCTION SCHEDULES AND METHODS ARE SATISFIED.
10. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR DETERMINING ACTUAL LOCATIONS AND ELEVATIONS OF ALL UTILITIES, INCLUDING SERVICES. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL CONTACT THE STATE UTILITIES PROTECTION SERVICE AT LEAST 48 HOURS BEFORE START OF WORK AND VERIFY ALL EXISTING UTILITY LOCATIONS.
11. CONTRACTOR SHALL PROVIDE AND CONSTRUCT ALL BENDS, FITTINGS, ADAPTERS, ETC. AS REQUIRED FOR GRAVITY-DRAINAGE PIPE CONNECTIONS TO STRUCTURE STUB-OUTS, INCLUDING SANITARY CONNECTIONS AND ROOF/FOOTING DRAIN CONNECTIONS TO ROOF LEADERS AND TO STORM DRAINAGE SYSTEM.
12. TOPSOIL SHALL BE STRIPPED AND STOCKPILED FOR USE IN FINAL LANDSCAPING.
13. MANHOLE RIMS AND CATCH BASIN GRATES SHALL BE SET TO ELEVATIONS SHOWN. SET ALL EXISTING MANHOLE FRAMES AND COVERS, CATCH BASIN GRATES, VALVE BOXES, ETC., TO BE RAISED OR LOWERED, TO PROPOSED FINISHED GRADE, FLUSH WITH THE ADJACENT GRADE.
14. UNDERDRAINS MUST BE ADDED IF DETERMINED NECESSARY BY THE ENGINEER OR CONSTRUCTION MANAGER AFTER SUBGRADE IS ROUGH GRADED.
15. UNLESS OTHERWISE INDICATED AT A SPECIFIC LOCATION, ALL FINISHED GRADES ARE TO CONFORM TO AND MATCH EXISTING GRADES AT INTERFACES OF NEW AND EXISTING PAVEMENT AND STRUCTURES.
16. THE CONTRACTOR SHALL RESTORE ANY STRUCTURE, PIPE, UTILITY, PAVEMENT, CURBS, SIDEWALKS, LANDSCAPED AREAS, ETC. DISTURBED DURING CONSTRUCTION TO THE ORIGINAL CONDITION OR BETTER.
17. THE CONTRACTOR SHALL PRESERVE EXISTING VEGETATION WHERE POSSIBLE AND/OR AS NOTED ON DRAWINGS. REFER TO STORMWATER POLLUTION PREVENTION PLAN FOR LIMIT OF DISTURBANCE AND NOTES.
18. ALL DISTURBANCE INCURRED TO PUBLIC PROPERTY DUE TO CONSTRUCTION SHALL BE RESTORED TO ITS PREVIOUS CONDITION OR BETTER, TO THE SATISFACTION OF THE LOCAL MUNICIPALITY AND/OR STATE D.O.T.
19. ALL CONSTRUCTION SHALL COMPLY WITH THE LOCAL MUNICIPALITY'S STANDARDS AND STATE D.O.T. SPECIFICATIONS. ALL CONSTRUCTION WITHIN A PUBLIC ROAD SHALL COMPLY WITH ALL APPROPRIATE PUBLIC UTILITY AND AGENCY REQUIREMENTS.
20. CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE LOCAL MUNICIPALITIES TO SECURE PERMITS AND FEES FOR STREET CUTS AND CONNECTIONS TO EXISTING UTILITIES.
21. SITE GRADING SHALL BE PERFORMED TO PROVIDE POSITIVE DRAINAGE TO CATCH BASINS AND TO PRECLUDE THE PONDING OF WATER ON SITE.
22. VERIFY REQUIRED SPOT ELEVATIONS/GRADING IN THE VICINITY OF THE WORK WITH THE EXISTING CONDITIONS PLAN AND A SITE CHECK.
23. CONTRACTOR IS TO FIELD VERIFY RELATIVE ELEVATIONS OF BENCHMARKS PRIOR TO CONSTRUCTION.

LAYOUT AND PAVING NOTES:

1. ASPHALT SURFACE COURSE SHALL BE LAID WITH THE DIRECTION OF TRAFFIC FLOW IN ALL DRIVE LANES WITHIN PARKING FIELDS.
2. DO NOT PLACE MIX ON FROZEN OR WET SURFACES, OR WHEN PRECIPITATION IS OCCURRING.
3. ALL PAVEMENT MARKINGS, SIGNS, AND OTHER TRAFFIC CONTROL DEVICES SHALL CONFORM TO AASHTO AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES. ALL SIGNS SHALL BE CONSTRUCTED OF FLAT SHEET ALUMINUM IN ACCORDANCE WITH STATE HIGHWAY SPECIFICATIONS. STEEL SIGN POSTS SHALL BE USED AND CONFORM TO ASTM A36 OR ASTM A441 AND SHOULD BE GALVANIZED IN ACCORDANCE WITH AASHTO M111.
4. A MINIMUM CLEARANCE OF 2 FEET SHALL BE MAINTAINED FROM THE FACE OF CURB AND ANY PART OF A LIGHT POLE OR TRAFFIC SIGN.
5. CONTRACTOR SHALL FURNISH AND INSTALL ALL PAVEMENT MARKINGS AS SHOWN ON THE PLANS. PAVEMENT MARKINGS SHALL BE APPLIED PER MANUFACTURER RECOMMENDATIONS. APPLY PAINT TO CLEAN, DRY SURFACES TO YIELD SHARP DEFINITION OF EDGES. AIR TEMPERATURE 50°F MINIMUM. APPLY TWO (2) COATS.
6. CONTRACTOR SHALL SAW-CUT IN A NEAT, STRAIGHT LINE FOR SMOOTH TRANSITIONS AT TIE-INS TO EXISTING EDGES OF PAVEMENT AND AT COLD JOINTS OF RECENTLY PAVED PAVEMENT.
7. JOINTS OR SCORE MARKS ARE TO BE SHARP AND CLEAN WITHOUT SHOWING EDGES OF JOINTING TOOL.
8. CONTRACTOR SHALL SAWCUT TIE-INS AT EXISTING CURBS TO ENSURE SMOOTH TRANSITIONS. CONTRACTOR SHALL SAWCUT AND TRANSITION TO EXISTING PAVEMENT TO ENSURE POSITIVE DRAINAGE.
9. ALL CURB RADII ARE 3', UNLESS OTHERWISE NOTED. FOR CURBED ISLANDS SHOWN WITH ONE LABELED RADIUS, THE LABELED RADIUS SHALL APPLY TO ALL FOUR CORNERS OF THE ISLAND.
10. CONTRACTOR SHALL INSTALL ALL CURBING IN A TRUE LINE AND PROPER GRADE IN ACCORDANCE WITH THE APPROVED SITE PLANS AND APPROPRIATE STATE DOT SPECIFICATIONS. CURVED CURB SECTIONS SHALL BE USED FOR RADII LESS THAN 30'. ALL CURBING SHALL BE BACKFILLED WITH CLEAN AGGREGATE.
11. CONTRACTOR SHALL REPAIR ANY CURB DAMAGED DURING CONSTRUCTION ACTIVITIES.
12. ALL CURBS SHALL BE FULL DEPTH CONCRETE CURB WITH 6" REVEAL, UNLESS OTHERWISE NOTED, SUCH ARE IN TRUCK AREAS CONCRETE CURB MUST HAVE MINIMUM REVEAL OF 8 INCHES.
13. ALL SIDEWALKS SHALL HAVE A LIGHT BROOM FINISH. VERTICAL FACES SHALL BE FORMED.
14. ALL DIMENSIONS SHOWN ARE FROM FACE OF CURB UNLESS OTHERWISE NOTED.
15. BASE AND ASPHALT THICKNESS SPECIFIED ARE THE MINIMUM REQUIRED.
16. REFER TO GEOTECHNICAL INVESTIGATION, FOR SUBGRADE PREPARATION REQUIREMENTS.

GENERAL CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL VERIFY ALL SITE CONDITIONS IN THE FIELD AND CONTACT THE OWNER IF THERE ARE ANY QUESTIONS OR CONFLICTS REGARDING THE CONSTRUCTION DOCUMENTS AND/OR FIELD CONDITIONS, SO THAT APPROPRIATE REVISIONS CAN BE MADE PRIOR TO CONSTRUCTION. ANY CONFLICT BETWEEN DRAWINGS AND THE SPECIFICATIONS SHALL BE CONFIRMED WITH THE CONSTRUCTION MANAGER ASAP.
2. THE CONTRACTOR SHALL ALERT THE STATE UTILITIES PROTECTION SERVICES 48 HOURS BEFORE ANY EXCAVATING IS INITIATED. CONTRACTOR MUST CONTACT UTILITY COMPANIES FOR EXACT LOCATIONS OF UTILITIES 2 WORKING DAYS BEFORE DIGGING.
3. SHOULD ANY UNCHARTED, OR INCORRECTLY CHARTED, EXISTING UNDERGROUND UTILITY OR OTHER OBSTRUCTION BE UNCOVERED DURING EXCAVATION, CONSULT THE OWNER'S REPRESENTATIVE IMMEDIATELY BEFORE PROCEEDING FURTHER WITH WORK IN THIS AREA.
4. THE CONTRACTOR SHALL ABIDE BY ALL OSHA, STATE AND LOCAL REGULATIONS WHEN OPERATING CRANES, BOOMS, HOISTS, ETC. IN CLOSE PROXIMITY TO OVERHEAD ELECTRIC LINES. IF CONTRACTOR MUST OPERATE EQUIPMENT CLOSE TO ELECTRIC LINES, CONTACT THE POWER COMPANY TO MAKE ARRANGEMENTS FOR PROPER SAFEGUARDS.
5. DO NOT INTERRUPT EXISTING UTILITIES SERVICING FACILITIES OCCUPIED AND USED BY THE OWNER OR OTHERS DURING OCCUPIED HOURS EXCEPT WHEN SUCH INTERRUPTIONS HAVE BEEN AUTHORIZED IN WRITING BY THE OWNER, LOCAL MUNICIPALITY AND UTILITY COMPANY. INTERRUPTIONS SHALL ONLY OCCUR AFTER ACCEPTABLE TEMPORARY OR PERMANENT SERVICE HAS BEEN PROVIDED.
6. THE CONTRACTOR SHALL RESTORE ANY STRUCTURES, PIPE, UTILITY, PAVEMENT, CURBS, SIDEWALKS, LANDSCAPED AREAS, OR OTHER EXISTING IMPROVEMENTS WITHIN THE SITE OR ADJOINING PROPERTIES DISTURBED BY CONTRACTOR DURING DEMOLITION OR CONSTRUCTION TO THEIR ORIGINAL CONDITION OR BETTER, AND TO THE SATISFACTION OF THE OWNER AND LOCAL MUNICIPALITY.
7. ANY APPARENT DISCREPANCIES OR QUESTIONS IN CONTRACT DOCUMENTS ARE TO BE BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE IMMEDIATELY.
8. CONTRACTOR SHALL KEEP ALL EXISTING STREETS CLEAN OF ALL SOIL, DIRT, MUD, AND DEBRIS. CONTRACTOR SHALL EXERCISE DILIGENT CARE TO PROTECT ALL TREES, SHRUBS, AND PLANTS NOT DESIGNATED FOR REMOVAL. CONTRACTOR SHALL REPLACE, TO THE SATISFACTION OF THE ENGINEER AND AT NO COST TO THE OWNER, ANY TREES, SHRUBS, PLANTS, AND OTHER OBJECTS REMOVED, DESTROYED, DISFIGURED, OR DAMAGED DUE TO CONTRACTOR'S NEGLIGENCE.
9. TRAFFIC SHALL BE MAINTAINED ON ALL ADJOINING STREETS AT ALL TIMES. TRAFFIC CONTROL SHALL BE MAINTAINED IN ACCORDANCE WITH THE STATE D.O.T. MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
10. CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE AT ALL TIMES AND SHALL BACKFILL AND GRADE EXCAVATED AREAS TO ELIMINATE PONDING ON THE SITE.
11. CONTRACTOR SHALL NOTIFY THE LOCAL GOVERNING BODY PRIOR TO BEGINNING ANY WORK IN THE PUBLIC RIGHT-OF-WAY.
12. DIRECTIONAL TRAFFIC ARROWS SHALL BE PAINTED WHITE UNLESS OTHERWISE NOTED.
13. ALL SITE DIMENSIONS ARE REFERENCED TO THE FACE OF CURBS OR EDGE OF PAVING UNLESS OTHERWISE NOTED. ALL BUILDING DIMENSIONS ARE REFERENCED TO THE OUTSIDE FACE OF THE STRUCTURE UNLESS OTHERWISE NOTED.
14. THE OWNER AT ITS DISCRETION RESERVES THE RIGHT TO MODIFY THE DETAILS AND STANDARDS OF CONSTRUCTION FOR ALL PRIVATE FACILITIES FROM THAT INDICATED ON THE APPROVED PLAN, PROVIDED THAT THE ALTERNATE STANDARD COMPLIES WITH LOCAL CODE AND/OR UTILITY COMPANY REQUIREMENTS AND THE GENERAL DESIGN INTENT OF THE PROJECT IS NOT COMPROMISED.
15. UPON COMPLETION OF CONSTRUCTION, POWER WASH ALL PAVING AND SIDEWALKS TO OWNER'S SATISFACTION.

GENERAL DEMOLITION NOTES:

1. THE CONTRACTOR SHALL PROTECT ALL IRON PINS, MONUMENTS AND PROPERTY CORNERS DURING CONSTRUCTION. ANY PINS, MONUMENTS AND/OR PROPERTY CORNERS DISTURBED BY CONTRACTOR SHALL BE RESET BY A LICENSED LAND SURVEYOR AT THE EXPENSE OF THE CONTRACTOR.
2. INFORMATION ON EXISTING UTILITIES HAS BEEN COMPILED FROM AVAILABLE INFORMATION INCLUDING UTILITY COMPANY AND MUNICIPAL RECORD MAPS AND FIELD SURVEY AND IS NOT GUARANTEED ACCURATE OR COMPLETE. UTILITIES ARE SHOWN TO ALERT THE CONTRACTOR TO THEIR PRESENCE. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR DETERMINING ACTUAL LOCATIONS AND ELEVATIONS OF ALL UTILITIES INCLUDING SERVICES PRIOR TO DEMOLITION AND CONSTRUCTION. **THE CONTRACTOR SHALL THE STATE 811 NUMBER TWO (2) WORKING DAYS BEFORE COMMENCEMENT AND VERIFY ALL UTILITY LOCATIONS.**
3. ALL EXISTING ITEMS DESIGNATED TO BE REMOVED INCLUDING: CURB, CONCRETE, ASPHALT AND EXCESS SOIL SHALL BE DISPOSED OF BY THE CONTRACTOR EITHER OFF-SITE, OR IN AN AREA DELINEATED BY THE OWNER. THE CONTRACTOR SHALL PROVIDE A COST IN HIS BID TO DISPOSE OF THESE MATERIALS AT AN AUTHORIZED DISPOSAL FACILITY.
4. DEMOLITION DEBRIS IS TO BE REMOVED FROM SITE AND PROPERLY DISPOSED OF IN A TIMELY MANNER. ACCUMULATION OF DEMOLITION DEBRIS ON SITE MUST BE REMOVED WEEKLY.
5. THE CONTRACTOR SHALL RESTORE ALL ITEMS THAT ARE TO REMAIN SUCH AS UTILITY STRUCTURES, PIPE, PAVEMENT, CURBS, SIDEWALKS OR LANDSCAPE AREAS DISTURBED DURING CONSTRUCTION TO THEIR ORIGINAL CONDITION OR BETTER TO THE SATISFACTION OF THE LOCAL AGENCIES, STATE D.O.T. AND THE OWNER.
6. ALL WORK TO BE ACCOMPLISHED IN STRICT ACCORDANCE WITH ALL CITY, STATE AND LOCAL ORDINANCES.
7. WITHIN THE SUBJECT PROPERTY, THE INTENT IS TO HAVE A CLEAN, CLEAR SITE, FREE OF ALL EXISTING ITEMS NOTED TO BE REMOVED IN ORDER TO PERMIT THE CONSTRUCTION OF THE NEW PROJECT.
8. ALL ITEMS NOTED TO BE REMOVED SHALL BE DONE SO AS PART OF THE CONTRACT FOR GENERAL CONSTRUCTION.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DISCONNECTION OF UTILITY SERVICES TO THE EXISTING STRUCTURES WHETHER SHOWN OR NOT PRIOR TO DEMOLITION OF THE BUILDINGS. EXISTING UTILITY SERVICES NOT BEING SAVED SHALL BE CUT AND CAPPED NEAR AREA OF DEMOLITION. EXISTING UTILITY LINES/CONDUITS THAT WILL NO LONGER BE REQUIRED AND THAT ARE WITHIN 24 INCHES OF EXISTING OR FINAL GRADE SHALL BE REMOVED. UTILITY LINES/CONDUITS BEYOND THESE LIMITS MAY BE PROPERLY ABANDONED IN PLACE OR REMOVED IF NOT REQUIRED AND ARE LOCATED BEYOND THE LIMITS OF NEW CONSTRUCTION. COORDINATE ALL UTILITY WORK WITH UTILITY PROVIDER PRIOR TO DISCONNECTION OR DEMOLITION.
11. FOR ALL ITEMS TO BE REMOVED - REMOVE NOT ONLY THE ABOVE GROUND ELEMENTS, BUT ALL UNDERGROUND ELEMENTS AS WELL, INCLUDING BUT NOT NECESSARILY LIMITED TO: FOUNDATIONS, GRAVEL FILLS, TREE ROOTS, OLD PIPE, ETC. REMOVE FOUNDATIONS TO 2.5 FEET BELOW PROPOSED FINISHED GRADE.
12. BACKFILL FOR ALL EXCAVATIONS RESULTING FROM THE DEMOLITION WORK IS TO MEET THE REQUIREMENTS FOR FILL OUTLINED IN THE CONSTRUCTION DOCUMENTS AND THE GEOTECHNICAL REPORT.
13. LIMITS OF REMOVAL SHOWN ON DEMOLITION PLAN ARE APPROXIMATE ONLY. ACTUAL QUANTITIES MAY VARY DUE TO CONSTRUCTION ACTIVITIES. CONTRACTOR IS RESPONSIBLE FOR ALL DEMOLITION, REMOVAL AND RESTORATION WORK NECESSARY TO PERMIT CONSTRUCTION OF THE PROPOSED PROJECT.
14. THE CONTRACTOR SHALL COORDINATE THE EXACT LOCATION OF THE TEMPORARY CONSTRUCTION FENCE IN THE FIELD WITH THE LOCAL UTILITY COMPANIES, AUTHORITIES, AND THE CONSTRUCTION PROJECT MANAGER.
15. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE AND PROTECTION OF TRAFFIC THROUGHOUT CONSTRUCTION AND SHALL INSTALL TRAFFIC CONTROL DEVICES, SIGNAGE, AND UTILIZE FLAG MEN AS NECESSARY, TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH STATE AND LOCAL REQUIREMENTS. TRAFFIC MAINTENANCE SHALL BE PROVIDED FOR ALL PUBLIC ROADWAYS THROUGHOUT THE DEMOLITION AND CONSTRUCTION PROJECT.
16. CONTRACTOR SHALL PRESERVE ALL PUBLIC UTILITIES WITHIN THE PUBLIC RIGHT OF WAY AND EASEMENTS THAT ARE WITHIN THE PROJECT DEMOLITION LIMITS.
17. CONTRACTOR SHALL BE RESPONSIBLE TO OBTAIN ALL NECESSARY DEMOLITION PERMITS AS WELL AS PROVIDING ASBESTOS SURVEYS OR OTHER DOCUMENTATION NECESSARY TO OBTAIN DEMOLITION PERMITS.

MODIFIED (05/01/2024)

CLIENT:

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CONSULTANT:

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NO.	DATE	REVISION DESCRIPTION
A	04/25/25	ISSUED FOR PLANNING COMMISSION APPROVAL

STATE OF OHIO
ROBERT W. WELLERT
E-59085
REGISTERED
PROFESSIONAL ENGINEER

PROJECT TITLE

PROPOSED NEW CIRCLE K STORE

SITE ADDRESS:

34273 LORAIN RD
N. RIDGEVILLE, OHIO
44039
LORAIN COUNTY

SCALE:	AS NOTED
DATE:	02/12/2024
DESIGNED BY:	ID
DRAWN BY:	ID
CHECKED BY:	ID
FILE NAME:	230907-DETAILS.dwg
JOB NUMBER:	230907

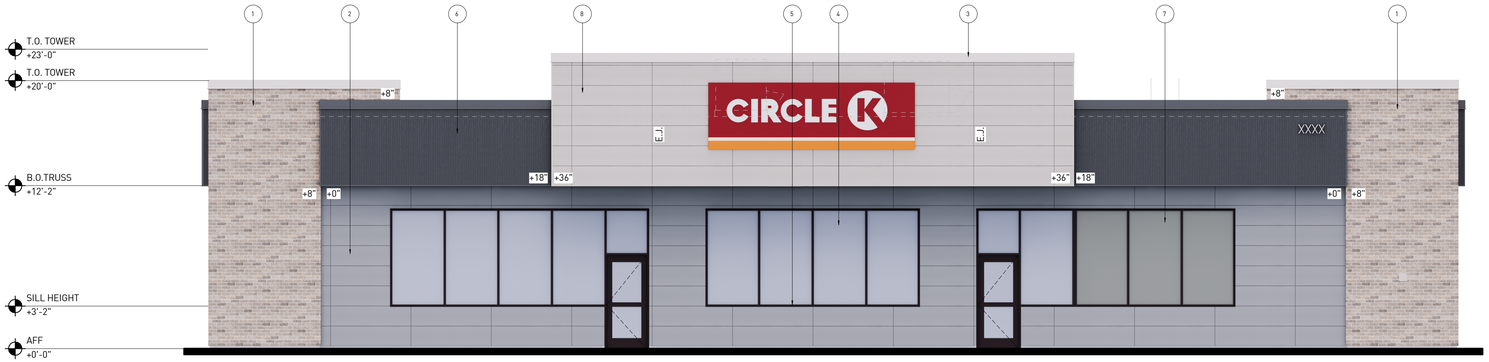
DRAWING TITLE:

SITE CONSTRUCTION NOTES

SHEET NO:

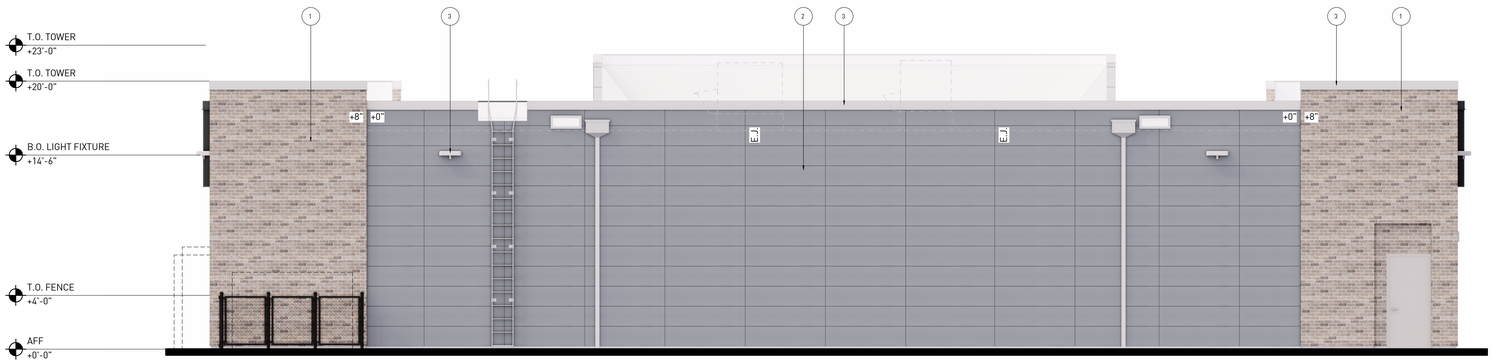
C6.7

File: p:\230907\production\dwg\details\230907-details.dwg Saved: 4/25/2025 11:35 AM (swellert) Plotted: 4/25/2025 4:35 PM (swellert) Plotstyle: (WC Standard.ctb) Scale: (1:1) Page Setup: (-----)



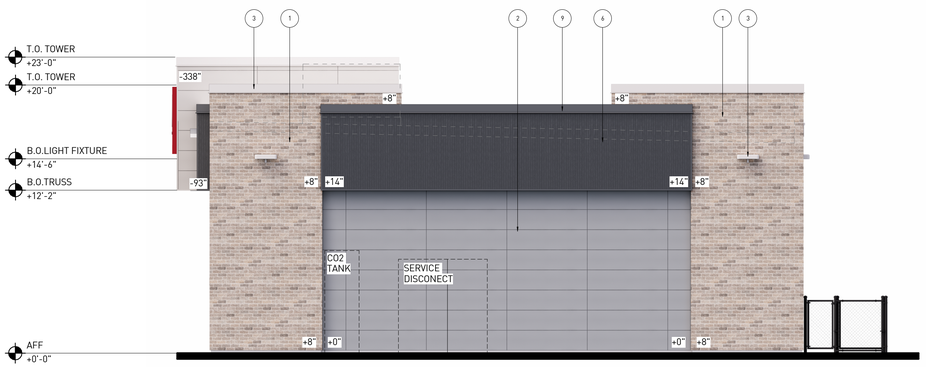
FRONT ELEVATION (SOUTH) | **1**

12" = 1'-0"



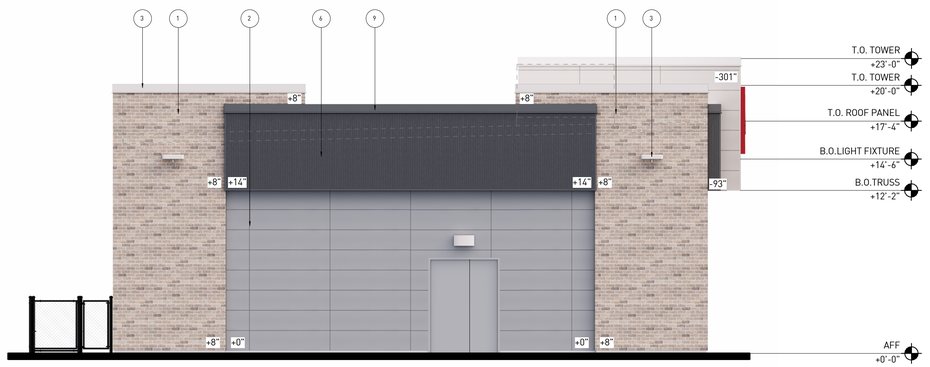
REAR ELEVATION (NORTH) | **2**

12" = 1'-0"



SIDE ELEVATION (EAST) | **3**

12" = 1'-0"



SIDE ELEVATION (WEST) | **4**

12" = 1'-0"

9. METAL COPING, CORNICE AND GUTTER
SHERWIN WILLIAMS 7075 "WEB GRAY"

8. NICHIHA TUFFBLOCK
SHERWIN WILLIAMS: 9166 "DRIFT OF MIST"

7. SPANDREL GLASS

6. NICHIHA RIBBED
SHERWIN WILLIAMS 7075 "WEB GRAY"

5. ANODIZED WINDOW AND DOOR FRAMING
COLOR: DARK BRONZE

4. 1" INSULATED CLEAR GLASS

3. METAL COPING, CORNICE AND GUTTER
SHERWIN WILLIAMS 7004 " SNOWBOUND"

2. NICHIHA TUFFBLOCK
SHERWIN WILLIAMS: 6255 " MORNING FOG"

1. NICHIHA CANYONBRICK
"SHALE BROWN"

MATERIAL LEGEND

N.T.S.

rdc.

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PROFESSIONAL SEAL

REVISIONS

△ ISSUE	DATE
R0	11/08/24
R0	03/07/25

PROFESSIONAL IN CHARGE
XX

PROJECT MANAGER
XX

QUALITY CONTROL
XX

DRAWN BY
XX

PROJECT NAME

CIRCLE K STORES, INC.

1234 STREET ADDRESS
ANYTOWN, US STATE

PROTOCYCLE # R0 03/07/25

CIRCLE K STORES, INC.

PROJECT NUMBER: XXXX

EXTERIOR ELEVATIONS MATERIALS AND COLORS

A2.01

rdc.

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PROFESSIONAL IN CHARGE
XX

PROJECT MANAGER
XX

QUALITY CONTROL
XX

DRAWN BY
XX

PROJECT NAME

CIRCLE K STORES, INC.

1234 STREET ADDRESS
ANYTOWN, US STATE

PROTOCYCLE # R0 03/07/25

CIRCLE K STORES, INC.

PROJECT NUMBER: XXXX

RENDERING

A2.04

rdc.

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R0	11/08/24
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PROFESSIONAL IN CHARGE
XX

PROJECT MANAGER
XX

QUALITY CONTROL
XX

DRAWN BY
XX

PROJECT NAME

CIRCLE K STORES, INC.

1234 STREET ADDRESS
ANYTOWN, US STATE

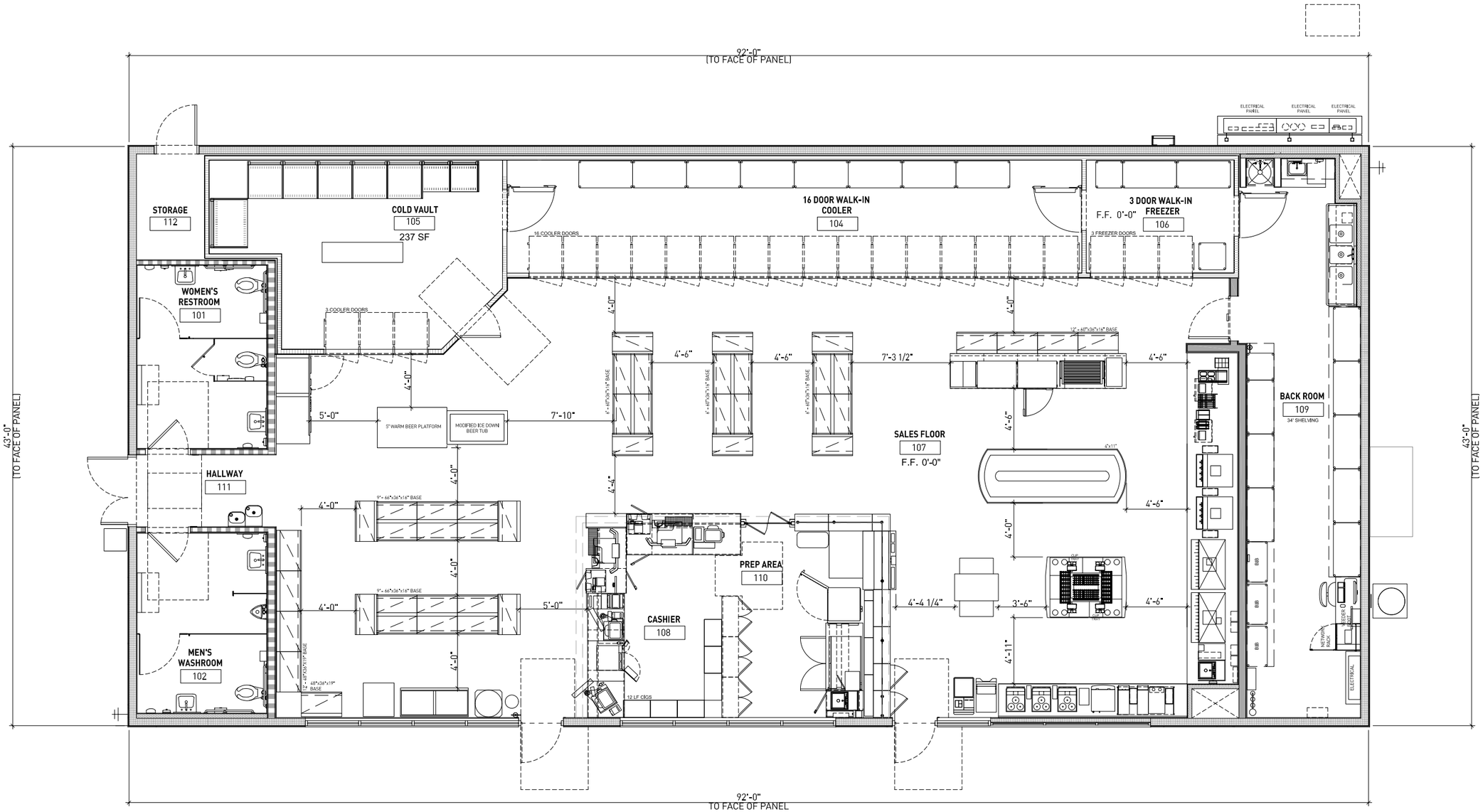
PROTOCYCLE # R0 03/07/25

CIRCLE K STORES, INC.

PROJECT NUMBER: XXXX

RENDERING

A2.05



BACK ROOM / MERCH STORAGE:

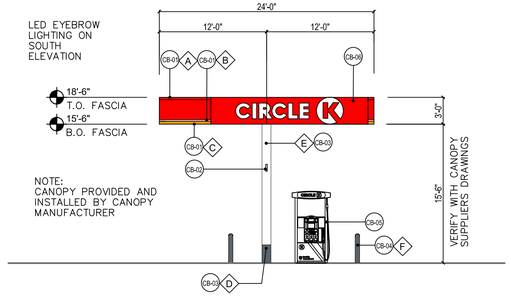
- RACK STORAGE: 34 LINEAR FEET
- ABOVE RACK STORAGE (LOFT): 55 LINEAR FEET

SALES / PREP AREA:

- MERCHANDISED GONDOLA: 139 LINEAR FEET
- CHECK OUT CIGARETTES SALES: 14 LINEAR FEET
- SHADOW BOX: 34 LINEAR FEET

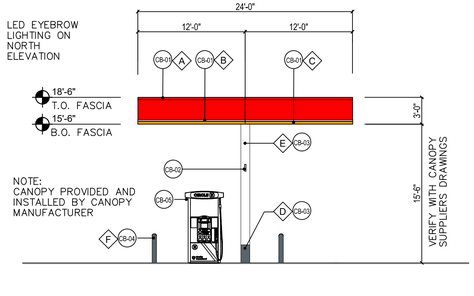
CORE STANDARD

SCALE: 1/8" = 1'-0"



SIDE ELEVATION (EAST) | 1

1/8" = 1'-0"



SIDE ELEVATION (WEST) | 2

1/8" = 1'-0"

GENERAL NOTES

1. GAS CANOPY ELEVATIONS ISSED FOR SIGN LOCATION AND FINISHES ONLY. SEE GAS CANOPY DRAWINGS FROM SUPPLIER FOR CONSTRUCTION INFORMATION
2. PROVIDE 12X12 ACCESS PANEL IN COLUMN ENCLOSURE AS REQUIRED. COORDINATE WITH FUEL AND CANOPY SUPPLIER DRAWINGS.
3. ALL LIGHTING ON CANOPY TO BE FLUSH MOUNTED WITH CANOPY DECK. COORDINATE CANOPY LIGHT LOCATIONS WITH ELECTRICAL AND GAS CANOPY DRAWINGS PRIOR TO CUTTING CANOPY DECK.
4. COORDINATE CANOPY INSTALLATION AND CANOPY PAD ELEVATION WITH CIVIL DRAWINGS.
5. PROVIDE UL RATED 4-A, 60-B:C FIR EXTINGUISHER AND CABINET PER PUMP. COORDINATE LOCATIONS WITH FUEL DRAWINGS AND CONFIRM LOCATIONS WITH FIRE DEPARTMENT OFFICIAL.
6. FASCIA ACM PANELS ARE PRE-FINISHED BY SIGNAGE VENDOR. COLORS SHOWN ARE FOR ILLUSTRATIVE PURPOSES ONLY.

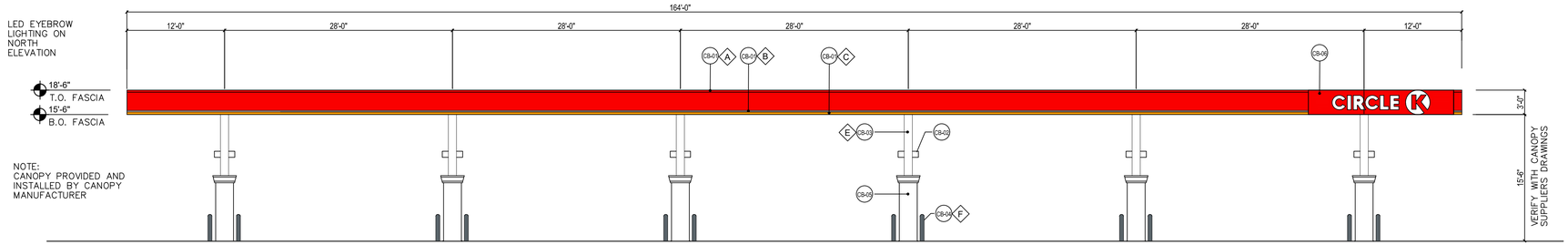
KEY NOTES (X)

NUMBER	DESCRIPTION
CB-01	ACM PANEL
CB-02	PUMP ID FLAGS BY SIGNAGE VENDOR
CB-03	STEEL COLUMN WITH PAINT FINISH
CB-04	6" DIA BOLLARD, 36" HIGH. SEE CIVIL AND FUEL DRAWINGS
CB-05	FUEL DISPENSER. SEE FUEL DRAWINGS
CB-06	INTERNALLY ILLUMINATED SIGN UNDER SEPARATE PERMIT

FINISH SCHEDULE (X)

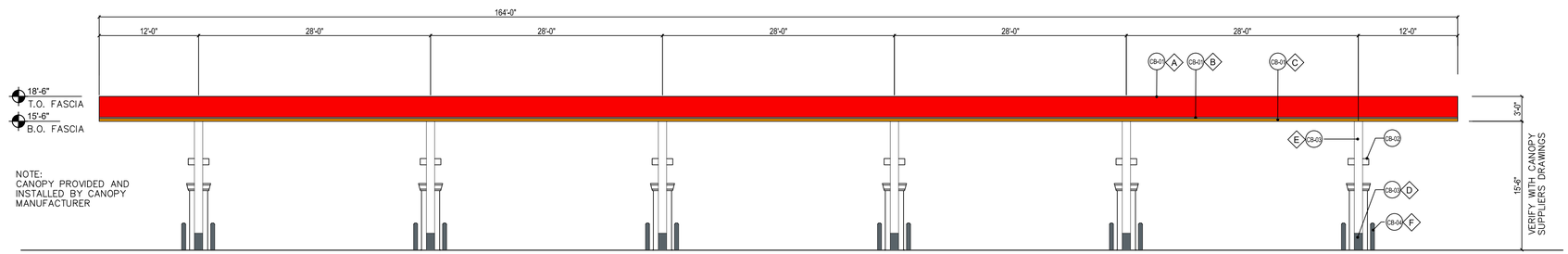
PAINT MANUFACTURER: SHERWIN-WILLIAMS
PRODUCT: PRO-INDUSTRIAL DTM ACRYLIC
ONE (1) COAT PRIMER AS RECOMMENDED
TWO (2) COATS PRO-INDUSTRIAL ACRYLIC
FINISH: GLOSS.

- (A) CIRCLE K RED #PMS 485
- (B) CIRCLE K WHITE
- (C) CIRCLE K ORANGE #PMS 144
- (D) SHERWIN WILLIAMS - SW6236 GRAYS HARBOR
- (E) RAL9016 SHELL WARM WHITE
- (F) PVC BOLLARD SLEEVE - DARK GRAY



FRONT ELEVATION (NORTH) | 3

1/8" = 1'-0"



REAR ELEVATION (SOUTH) | 4

1/8" = 1'-0"

CUPKOVIC architecture llc
6060 Rockside Woods Blvd | 216.524.8400 phone | www.cuparc.com
Cleveland, Ohio 44131 | 216.524.8401 fax | info@cuparc.com

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PROFESSIONAL SEAL

REVISION

△ ISSUE	DATE
ISSUED FOR PERMIT	0x/xx/24

PROFESSIONAL IN CHARGE
N. CUPKOVIC
PROJECT MANAGER
S. MOORE
QUALITY CONTROL
S. MOORE
DRAWN BY
-

PROJECT NAME

CIRCLE K STORES, INC.
#xxxx

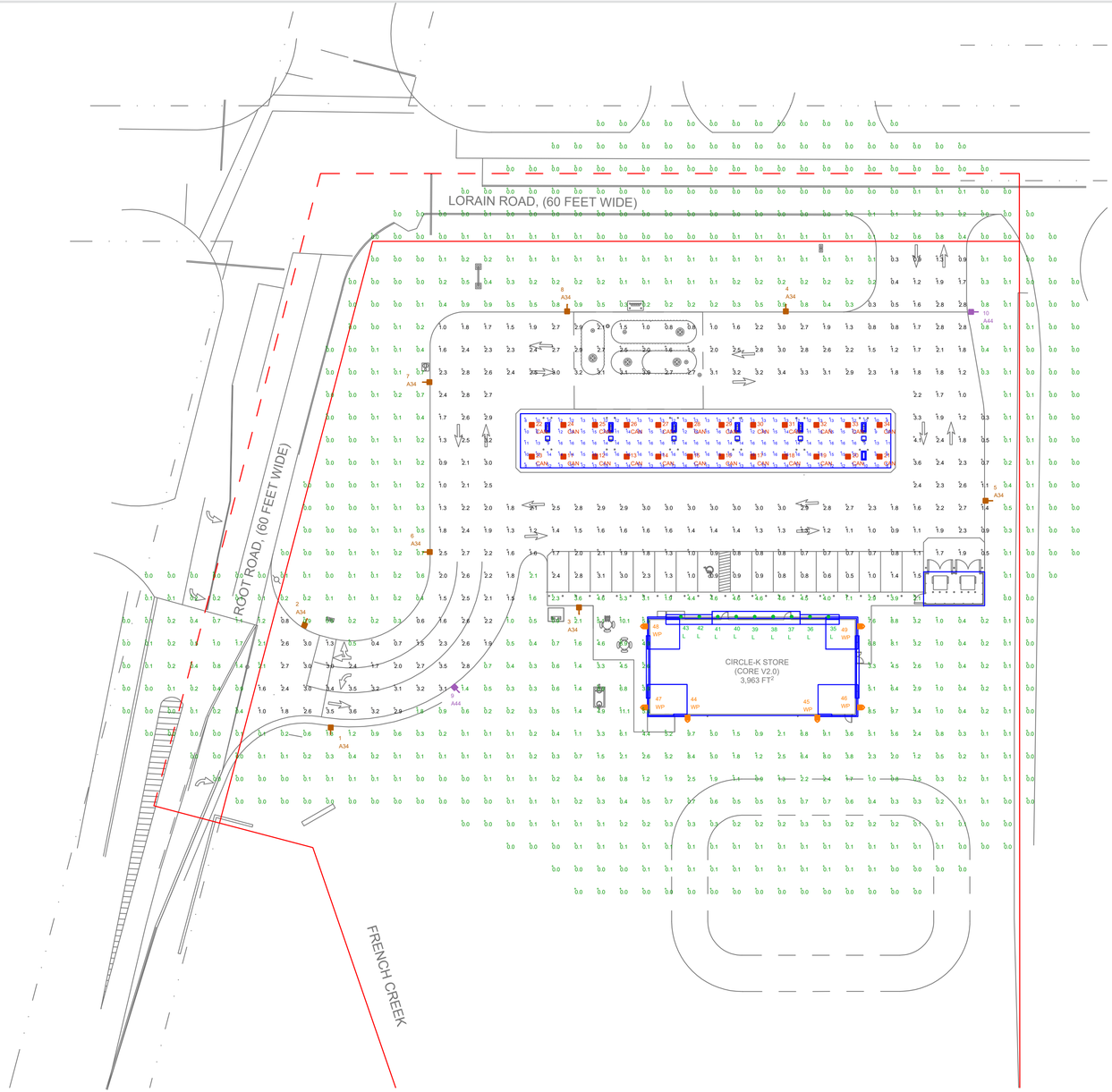
LORAIN & ROOT ROAD NORTH
RIDGEVILLE, OHIO 44039

CIRCLE K STORES, INC.

PROJECT NUMBER: 24-542

FUEL CANOPY ELEVATIONS

CA-1



NOTE:
- ALL AREA LIGHTS ON NEW 15 FT. POLE MOUNTED ON 3 FT. CONCRETE BASE

LUMINAIRE LOCATION SUMMARY		
LUM NO.	LABEL	MTG. HT.
1	A34	18
2	A34	18
3	A34	18
4	A34	18
5	A34	18
6	A34	18
7	A34	18
8	A34	18
9	A44	18
10	A44	18
11	CAN	15.5
12	CAN	15.5
13	CAN	15.5
14	CAN	15.5
15	CAN	15.5
16	CAN	15.5
17	CAN	15.5
18	CAN	15.5
19	CAN	15.5
20	CAN	15.5
21	CAN	15.5
22	CAN	15.5
23	CAN	15.5
24	CAN	15.5
25	CAN	15.5
26	CAN	15.5
27	CAN	15.5
28	CAN	15.5
29	CAN	15.5
30	CAN	15.5
31	CAN	15.5
32	CAN	15.5
33	CAN	15.5
34	CAN	15.5
35	L	12
36	L	12
37	L	12
38	L	12
39	L	12
40	L	12
41	L	12
42	L	12
43	L	12
44	WP	14.5
45	WP	14.5
46	WP	14.5
47	WP	14.5
48	WP	14.5
49	WP	14.5

THIS SITE IS LOCATED IN A REGION WHERE LIGHTING IS REGULATED BY LOCAL ORDINANCES

ILLUMINATION LEVELS ARE THE RESULT OF CONDITIONS OR REQUESTS BY OTHERS
RED LEONARD ASSOCIATES IS NOT RESPONSIBLE
FOR INCIDENTS CAUSED BY INSUFFICIENT LIGHTING
AND DOES NOT RECOMMEND THESE LEVELS FOR
SECURITY AND SAFETY REASONS

FOOTCANDLE LEVELS CALCULATED AT GRADE USING INITIAL LUMEN VALUES					
LABEL	AVG	MAX	MIN	AVG/MIN	MAX/MIN
PAVED AREA	2.00	4.1	0.3	6.67	13.67
UNDEFINED	0.68	11.1	0.0	N.A.	N.A.
UNDER CANOPY	13.27	16	8	1.66	2.00

LUMINAIRE SCHEDULE										
SYMBOL	QTY	LABEL	ARRANGEMENT	LUMENS	LLF	DIMMING FACTOR	BUG RATING	WATTS/LUMINAIRE	TOTAL WATTS	MANUFACTURER	CATALOG LOGIC
	8	A34	Single	6908	1.030	0.620	B1-U0-G2	72.95	583.6	Lithonia Lighting	RSX1 LED P2 50K R3 HS (SETTING 4)
	2	A44	Single	6553	1.030	0.620	B1-U0-G2	72.95	145.9	Lithonia Lighting	RSX1 LED P2 50K R4 HS (SETTING 4)
	24	CAN	Single	4176	1.030	1.000	B2-U0-G1	31.0827	745.985	Lithonia Lighting	RCNY LED SYMC ALO1 Setting 3 80CRI 50K MVOLT
	9	L	SINGLE	2238	1.000	1.000	N.A.	25.15	226.35	Lithonia Lighting	LBR6 ALO2 20LM SWW1 (4000K) AR LSS MWD 90CRI WL
	6	WP	SINGLE	6659	1.030	1.000	B1-U0-G1	51.2609	307.565	Lithonia Lighting	ARC2 LED P5 50K MVOLT

REDLEONARD ASSOCIATES
1340 Kemper Meadow Dr, Forest Park, OH 45240
513-574-9500 | redleonard.com

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SCALE: 1" = 30'
LAYOUT BY: JAN
DWG SIZE: D
DATE: 10/8/24

PROJECT NAME:
CIRCLE K
RIDGEVILLE, OH
DRAWING NUMBER:
RL-9873-S1

	QTY	LABEL	DESCRIPTION
AREA	8	A34	RSX1 LED P2 50K R3 HS (SETTING 4)
	2	A44	RSX1 LED P2 50K R4 HS (SETTING 4)

	QTY	LABEL	DESCRIPTION
CANOPY	24	CAN	RCNY LED SYMC ALO1 SETTING 3 80CRI 50K MVOLT

	QTY	LABEL	DESCRIPTION
DOWNLIGHT	9	L	LBR6 ALO2 20LM SWW1 (4000K) AR LSS MWD 90CRI WL

	QTY	LABEL	DESCRIPTION
WALL MOUNTED	6	WP	ARC2 LED P5 50K MVOLT

ADDITIONAL FIXTURE INFO

RSX1 LED
Area Luminaire

Catalog Number
Notes
Type

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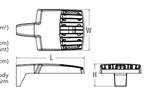
Specifications

EPA (ft²/⌀0°):	0.57 ft² (0.05 m²)
Length:	21.8" (55.4 cm) (SPA mount)
Width:	13.3" (33.8 cm)
Height:	3.0" (7.6 cm) Main Body 7.2" (18.4 cm) Arm
Weight: (SPA mount):	22.0 lbs (10.0 kg)



Introduction

The new RSX LED Area family delivers maximum value by providing significant energy savings, long life and outstanding photometric performance at an affordable price. The RSX1 delivers 7,000 to 17,000 lumens allowing it to replace 70W to 400W HID luminaires.

The RSX features an integral universal mounting mechanism that allows the luminaire to be mounted on most existing drill hole patterns. This "no-drill" solution provides significant labor savings. An easy-access door on the bottom of mounting arm allows for wiring without opening the electrical compartment. A mast arm adaptor, adjustable integral slipfitter and other mounting configurations are available.

design select
Items marked by a shaded background qualify for the Design Select program and ship in 15 days or less. To learn more about Design Select, visit www.acuitybrands.com/designselect.
*See ordering tree for details

Design Select options indicated by this color background.

Ordering Information

EXAMPLE: RSX1 LED P4 40K R3 MVOLT SPA DDBXD

RSX1 LED

Series	Performance Package	Color Temperature	Distribution	Voltage	Mounting
RSX1 LED	P1 Performance P2 P3 P4	30K 3000K; 40K 4000K; 50K 5000K	R2 Type 2 Wide; R3 Type 3 Wide; R3S Type 3 Short; R4 Type 4 Wide; R4S Type 4 Short; R5 Type 5 Wide; R5S Type 5 Short; AFR Automotive Front Row; AFRHO Automotive Front Row Right Rotated; AFRLHO Automotive Front Row Left Rotated	MVOLT (120V-277V)*; HVOLT (347V-480V)*; TVOLT (277V-480V)* (use specific voltage for options on notes) 120* 277* 208* 347* 240* 480*	SPA Square pole mounting (3.0" min. SQ pole for 1, 2, 3, 4 NP3*); RPA Round pole mounting (3.2" min. dia. RND pole for 2, 3, 4 NP3*, 3.0" min. dia. RND pole for 1 at NP3*, 2 at 180°, 3 at 120°); WBA Mast arm adapter (fits 2-3/8" OD horizontal tenon); IS Adjustable slipfitter (fits 2-3/8" OD tenon)*; WBA Wall bracket*; WBACL Wall bracket with surface conduit box; AASP Adjustable tilt arm square pole mounting*; AARP Adjustable tilt arm round pole mounting*; AAWB Adjustable tilt arm with wall bracket*; AARPCL Adjustable tilt arm wall bracket and surface conduit box*

Options	Finish
Shipped Installed	DDBXD Dark Bronze
PE Photocontrol, button style**	DBLXD Black
PEBT Seven-wire twist-lock receptacle only (no control)*,[1],[2]	DNAXD Natural Aluminum
SF Single fuse (120, 277, 347)*	DWHXD White
DF Double fuse (208, 240, 480)*	DDBTXD Textured Dark Bronze
SPD20KV 20kV surge pack (10kV standard)	DBLBXD Textured Black
FAO Field adjustable output*	DNATXD Textured Natural Aluminum
DMG 0-10V dimming extend out back of housing for external control (control ordered separate)*	DWHGXD Textured White
Shipped Separately (requires some field assembly)	
BSG External glare shield*	
EGFV External glare full visor (360° around light aperture)*	
BS Bird spikes *	

External Shields

House Side Shield

External Glare Shield

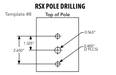
External 360 Full Visor

Pole/Mounting Information

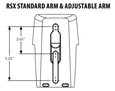
Accessories including bullhorns, cross arms and other adapters are available under the accessories tab at Lithonia's Outdoor Poles and Arms product page. Click here to visit Accessories.

HANDHOLE ORIENTATION

RSX POLE DRILLING



RSX STANDARD ARM & ADJUSTABLE ARM



Round Tenon Mount - Pole Top Slipfitters

Tenon O.D.	Fit Drawing	1 at 180°	2 at 180°	2 at 90°	3 at 120°	3 at 90°	4 at 90°
2-3/8"	RPA Adapter	AST21-190	AST21-280	AST21-290	AST21-320	AST21-390	AST21-490
4"	RPA Adapter	AST21-196	AST21-286	AST21-296	AST21-326	AST21-396	AST21-496

Drill/Slide Location by Configuration Type

Drilling Template	Mounting Option	Single	2 at 180	2 at 90	3 at 120	3 at 90	4 at 90
	Head Location	Side B	Side B & D	Side B & C	Round Pole Only	Side B, C & D	Side A, B, C & D
#8	Drill Nomenclature	DM19AS	DM29AS	DM29AS	DM23AS	DM39AS	DM49AS

RSX1 - Luminaire EPA

*Includes luminaire and integral mounting arm. Other tenons, arms, brackets or other accessories are not included in this EPA data.

Mounting Type	Tilt	Fixture Quantity & Mounting Configuration: Single	2 at 90	2 at 180	3 at 90	3 at 120	4 at 90
SPA - Square Pole Adapter		1.93	3.23	3.43	5.13	5.34	6.53
RPA - Round Pole Adapter	0°	0.57	1.03	1.05	1.52	1.56	2.03
WA - Wall Arm Adapter		0.62	1.06	1.15	1.62	1.66	2.15
		0.49	0.95	0.89	1.36	1.2	1.87
	0°	0.57	1.03	1.05	1.52	1.56	2.03
	10°	0.68	1.24	1.33	2	1.74	2.44
	20°	0.87	1.71	1.73	2.56	2.26	3.42
	30°	1.24	2.79	2.3	3.91	3.01	4.36
	40°	1.81	2.68	2.98	3.85	3.68	5.30
G - Integral Slipfitter AASP/AARP - Adjustable Arm Square/Round Pole	45°	2.11	2.92	3.44	4.2	4.08	5.77
	50°	2.31	3.17	3.72	4.52	4.44	6.26
	60°	2.71	3.66	4.38	5.23	5.15	7.24
	70°	2.78	3.98	4.54	5.67	5.47	7.91
	80°	2.76	4.18	4.62	5.97	5.76	8.31
	90°	2.73	4.25	4.64	6.11	5.91	8.47

NOTES
1 Any Type 5 distribution, is not available with WBA.
2 MVOLT driver operates on any line voltage from 120-277V (50/60 Hz).
3 HVOLT driver operates on any line voltage from 347-480V (50/60 Hz).
4 HVOLT driver not available with P1 or PE. HVOLT driver operates on any line voltage from 277V-480V (50/60 Hz). HVOLT not available with fusing (SF, DF) or with SPD20KV.
5 Single fuse (SF) requires 120V, 277V or 347V. Double fuse (DF) requires 208V, 240V or 480V.
6 Not available with P4 above horizontal.
7 Is may be ordered as an accessory.
8 Requires MVOLT or 347V.
9 Two or more of the following options cannot be combined: including PE, DMG, PEBT, FAO and NLTAIR2 PIRHN. (Exception: PE and FAO can be combined). Not available with NLTAIR2 nLight AIR.
10 Compatible with standard twist-lock photocells for dusk to dawn operation or advanced control nodes that provide 0-10V dimming signals. Wire WHite 5-wired to dimming leads on driver. Wired WHite2 capped inside luminaire. Twistlock photocell ordered and shipped as a separate line item from Acuity Brands Controls. See accessories. Shorting Cap included.
11 For units with option PEBT, the mounting must be restricted to +/- 45° from plumb. Not available with SPA, RPA or WBA.
12 Must be ordered with PIRHN.
13 Requires MVOLT or HVOLT.
14 Must be ordered with NLTAIR2. For additional information on PIRHN visit here.
15 CCE option not available with WBA, WBACL, AASP, AARP, AAWB, AARPCL, SBA, SBAH or BAA.
16 Must be ordered with fusing (SF, DF). Requires panel filling.
17 Requires luminaire to be specified with PERP option. Ordered and shipped as a separate line item from Acuity Brands Controls.

Finish
DDBXD Dark Bronze
DBLXD Black
DNAXD Natural Aluminum
DWHXD White
DDBTXD Textured Dark Bronze
DBLBXD Textured Black
DNATXD Textured Natural Aluminum
DWHGXD Textured White

ADDITIONAL FIXTURE INFO

RCNY LED
Recessed LED Canopy/Ceiling Luminaire

Catalog Number
Notes
Type

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Specifications

Width:	RCNY LED 11.5"
Height:	5.9"
Length:	11.5"
Weight:	14lbs

Introduction

The Velarium RCNY LED recessed luminaire is designed to provide exceptional energy savings and versatility in one fixture. With a compact design the RCNY provides superior illumination while blending into the canopy space seamlessly. The RCNY is unique in that as a recessed canopy it can be installed in both 12" and 16" canopy decks. Features such as Adjustable Lumen Output and forward throw distribution option make the RCNY one of the most versatile gas station canopies in the market. With up to 159 LPW the RCNY LED delivers up to 80% in energy savings when replacing metal halide luminaires. With over 100,000 hour life expectancy (12+ years of 24/7 continuous operation), the RCNY LED luminaire provides significant maintenance savings over traditional luminaires.

Ordering Information

EXAMPLE: RCNY LED ALO2 50K 70CRI SYMC MVOLT BZS DWHXD

RCNY LED

Series	Package	Color Temperature	CRI	Lens
RCNY LED	ALO1 5,000-10,000 Lumens*; ALO2 10,000-20,000 Lumens	30K 3000K; 40K 4000K; 50K 5000K; 57K 5700K	70CRI 80CRI	SYMC Symmetric Clear Lens; ASYC Asymmetric Clear Lens

Voltage	Trim	Trim Finish	Option
MVOLT 120-277V; HVOLT 347-480V	BZS 11.5" Square Bezel	DWHXD White; DBLXD Black; DDBXD Bronze; DNAXD Natural Aluminum	CCE Costal Protection; SPD10KV 10K Surge Protection

NOTES
1 90CRI not available with 57K.

Accessories
Ordered and shipped separately.

Catalog	Description	Box	Dimensions
EFL20SB*	RCNY Backplate for 12" Decks	Covers Existing Hole of Larger than Fixture	15.3" x 24" x 10GA Gale Steel
EFL40SB*	RCNY Backplate for 16" Decks	Covers Existing Hole of Larger than Fixture	15.3" x 24" x 10GA Gale Steel
BP1809A*	RCNY 18" Beautyplate	Covers Existing Footprint of Existing Fixture	18" x 18" x 16GA Aluminum
BP2409A*	RCNY 24" Beautyplate	Covers Existing Footprint of Existing Fixture	24" x 24" x 16GA Aluminum

* Add "EF" to the end of the catalog number for individual unit pack or "36" for packs of 6 units

ADDITIONAL FIXTURE INFO

LITHONIA LIGHTING

Catalog Number
Notes
Type

LBR6
6" Open and Wallwash LED Retrofit/Remodel Downlight

Retrofit | Remodel

FEATURES & SPECIFICATIONS

INTENDED USE — Typical applications include corridors, lobbies, conference rooms and private offices.

CONSTRUCTION — Retrofit, remodel, and new construction mounting types. See table for compatible ceiling openings and thickness range.
Optional oval rings available for additional overlap trim coverage.
1/2"-1-1/2" ceiling thickness
25° ambient temperature
IC-rated up to 10000+

OPTICS — LEDs are binned to a 3-step MacAdam Ellipse. 33° cutoff

New construction frame accessories: approved for # 8-32 with 4x4E No. 12 AWG conductors rated for 90°C through wiring.

DOOR standard (90CRI optional)

DGR — DGR is zero for fixtures aimed at nadir with a cut-off equal to or less than 60deg, per CIE 117-1996 Discomfort Glare in Interior Lighting. VIEW FAQ

ELECTRICAL — Adjustable lumen output with four mode options. Fixed lumen options also available.
MVOLT 120/277V 50/60Hz driver (0-10V & 120V Phase Dimming to 10% or 1% min dimming level)
FCC CFR Title 47 Part 15 Class A for 277V. FCC CFR Title 47 Part 15 Class B for 120V.

LUMEN MAINTENANCE — L90 at 60,000 hours

LISTINGS — Certified to US and Canadian safety standards. Damp location standard (Wet Location (WL) optional, requires covered ceiling). Some configurations are ENERGY STAR® certified, please visit energy.energystar.gov for specific products. TAA compliant. UFC (3-530-01) specification compliant for power factor and THD. CEA P350.1.0 compliant for power quality at full output, compliant up to 2000lm at fully dimmed output. Drivers are ROHS compliant

Title 24 compliant (90CRI, up to 1000lm).

WARRANTY — 5-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application.
All values are design or typical values, measured under laboratory conditions at 25 °C.
Specifications subject to change without notice.

Performance Data

LBR6 4R LSS MWD

Lumen Output	Wattage	80CRI 30K/3000K Delivered Lumens	80CRI 30K/3000K LPW	80CRI 40K/4000K Delivered Lumens	80CRI 40K/4000K LPW	80CRI 50K/5000K Delivered Lumens	80CRI 50K/5000K LPW
ALO1 (5000LM)	6	571	99	585	101	599	103
ALO1 (7500LM)	9	905	102	926	105	948	105
ALO1 (10000LM)	13	1270	98	1300	100	1330	102
ALO2 (10000LM)	13	1246	108	1278	110	1410	112
ALO2 (15000LM)	19	1963	105	2011	107	2059	109
ALO2 (20000LM)	25	2476	100	2533	101	2590	103
ALO3 (20000LM)	25	2547	103	2606	105	2668	107
ALO3 (25000LM)	32	3075	98	3146	100	3221	101
ALO3 (30000LM)	38	3482	94	3573	95.5	3658	96
ALO4 (40000LM)	39	4188	107	4265	109	4350	112
ALO4 (45000LM)	44	4413	105	4707	107	4801	109
ALO4 (50000LM)	49	5057	102	5159	104	5273	108

LBR6 WS MWD

Lumen Output	Wattage	80CRI 30K/3000K Delivered Lumens	80CRI 30K/3000K LPW	80CRI 40K/4000K Delivered Lumens	80CRI 40K/4000K LPW	80CRI 50K/5000K Delivered Lumens	80CRI 50K/5000K LPW
ALO1 (5000LM)	6	480	99	384	101	397	102
ALO1 (7500LM)	9	768	102	924	103	946	105
ALO1 (10000LM)	13	1067	98	1297	100	1328	102
ALO2 (15000LM)	19	1555	108	1575	110	1408	112
ALO2 (20000LM)	19	1651	105	2007	106	2055	108
ALO2 (20000LM)	25	2079	99	2528	101	2588	103
ALO3 (20000LM)	25	2159	103	2601	104	2663	106
ALO3 (25000LM)	32	2583	98	3140	99	3214	101
ALO3 (30000LM)	38	2933	93	3566	94	3651	96
ALO4 (40000LM)	39	3515	90	3583	92	3654	94
ALO4 (45000LM)	44	3875	88	3954	90	4033	92
ALO4 (50000LM)	49	4214	86	4300	88	4386	90

•Tested in accordance with IESNA LM-79-08, ud526.
•Tested to current IES and NEMA standards under stabilized laboratory conditions.
•CRI: 80 typical

design select
Items marked by a shaded background qualify for the Design Select program and ship in 15 days or less. To learn more about Design Select, visit www.acuitybrands.com/designselect.
*See ordering tree for details

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ADDITIONAL FIXTURE INFO

ARC2 LED
Architectural Wall Luminaire

Catalog Number
Notes
Type

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Specifications

Depth (D1):	9.25"
Depth (D2):	7.5"
Height:	5"
Width:	14"
Weight: (without options)	11 lbs

Introduction

The Lithonia Lighting ARC LED wall-mounted luminaires provide both architectural styling and visually comfortable illumination while providing the high energy savings and low initial costs for quick financial payback.

ARC2 delivers up to 6,500 lumens with a soft, non-pixelated light source, creating a visually comfortable environment. It offers integrated emergency battery backup options, including an 8W cold temperature option, making it suitable for pedestrian scale applications in any environment.

ARC LED Family Overview

Luminaire	Standard (0°, 25°C)	Cold (0°, -20°C)	Approximate Lumens (4000K) P1	P2	P3	P4	P5
ARC1 LED	4W	--	1,500	2,000	3,000	--	--
ARC2 LED	4W	8W	1,500	2,000	3,000	4,000	6,500

Ordering Information

EXAMPLE: ARC2 LED P2 40K MVOLT PE DDBXD

Series	Package	Color Temperature	Voltage	Options	Finish
ARC2 LED	P1 1,500 Lumens; P2 2,000 Lumens; P3 3,000 Lumens; P4 4,000 Lumens; P5 6,500 Lumens	30K 3000K; 40K 4000K; 50K 5000K	MVOLT 347*	E4WH Emergency battery backup, CEC compliant (4W, 0°C min)*; E8WC Emergency battery backup, CEC compliant (8W, -20°C min)*; PE Button type photocell for dusk-to-dawn operation; DMG 0-10V dimming wires pulled outside fixture (for use with an external control, ordered separately)*; SPD6KV 6kV surge protection*; FAO Field adjustable light output device. Allows for easy adjustment to the desired light levels, from 20% to 100%*; L25/50 50° Fixture Vaults	DDBXD Dark bronze; DBLXD Black; DNAXD Natural aluminum; DWHXD White; DBLBXD Textured black; DNATXD Textured natural aluminum; DWHGXD Textured white; DSTXD Textured sandstone

Accessories
Ordered and shipped separately.
WGBW DDBXD U — Surface - mounted back box (specify finish)

NOTES
1 EATV not available with E4WH, E8WC and SPD6KV.
2 FAO not available with DMG.

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Ordering Information

Series	Package	Color Temperature	CRI	Lens
LBR6 6" Retrofit; LBR6WM 6" Retrofit Wallwash	Adjustable Lumen Output: ALO1 1000/1500/2000lm; ALO2 1000/1500/2000lm; ALO3 2000/2500/3000lm; ALO4 4000/4500/5000lm. Fixed Lumen Output: FLO1 1000lm; FLO2 1500lm; FLO3 2000lm; FLO4 2500lm; FLO5 3000lm; FLO6 4000lm; FLO7 4500lm; FLO8 5000lm	Color temperature‡: Switchable CCT: SWW1 3000K-5000K; SWW2 4000K-5000K. Fixed CCT: 27K 2700K; 30K 3000K; 35K 3500K; 40K 4000K; 50K 5000K	CRI: 80CRI 80CRI; 90CRI 90CRI	Lenses‡: WL Wallwash; WLL Wallwash Linear; WLS Wallwash Square; WLC Wallwash Circular; RAL Recessed Adjustable Linear; RAS Recessed Adjustable Square; RAC Recessed Adjustable Circular

Reflector Color	Reflector Flange	Reflector Finish
AR Clear; BLK Black painted; MSL Metallic Silver; WHT White painted; TCPC Custom painted trim; TRALTBD RAL painted trim	(Blank) Self-flanged; TRW White painted flange; TRBL Black painted flange; TCPC Custom painted flange only; FRALTBD RAL painted flange only	LSS Semi-specular

Distribution	Voltage	Driver	Emergency‡	Control Input‡
MWD Medium wide (1.0 x MH); WD Wide (1.2x MH); WW Wallwash	MVOLT 120 277 347	UNV Universal dimming to 10% 0-10V; low voltage dimming (120V); DALI DALI 2 dimming; DALI2 Universal dimming to 1% 0-10V; low voltage dimming (120V); DALI 2 dimming; D10 Minimum dimming 10% driver for use with JOT; D1 Minimum dimming 1% driver for use with JOT	(Blank) No Emergency Needed; ELR Battery pack (10W constant power) Tc0 Compliant remote test switch; ETS Battery pack (10W constant power) T20 Compliant remote test switch; ETSR Battery pack (10W constant power) T20 Compliant integral test switch; ETHNRCPR Battery pack 10W constant power) T20 Compliant remote test switch; ETHNRRT50R Emergency battery pack, 10W with remote test switch and lota 1504R technology	(Blank) No Control Input Needed; JOT Wireless room control with "Just One Touch" pairing; NPS80EZ nLight® network power/relay pack with 0-10V dimming; NPS80EZCR nLight® network power/relay pack with 0-10V dimming, CR controls fixture on emergency circuit; NLTAIR2 nLight® Air enabled; NLTAIR2EZ nLight® AIR Dimming Pack Wireless Controls. Controls fixtures on emergency circuit; NLTAIR2EZCR nLight® AIR Dimming Pack Wireless Controls. CR controls fixtures on emergency circuit. ULTA Emergency Operation, use ensures test interrupt detection.

Options	Restriction
Adjustable Lumen/CCT	Adjustable Lumen Output and Switchable CCT must be specified together (for example: ALO1 SWW1).
Fixed Lumen/CCT	Fixed Lumen Output and Fixed CCT must be specified together (for example: FLO6 30K).
AT	Standard for 2" and IP31, not available with WW.
E1WNCPR	Not available with ET, ELR, ETS, NPS80EZ, NLTAIR2EZ, NLTAIR2EZCR, ALO3 & ALO4 or DALI, D8 2000-4500 lumens w/JOT.
E10WCP	Not available with ET, ELR, ETS, CP, 347V, NPS80EZ, NLTAIR2EZ, NLTAIR2EZCR, WL, ALO3 & ALO4 or DALI, D8 2000-4500 lumens w/JOT.
E1WNRCWB	Not available with ET, ELR, ETS, CP, 347V, NPS80EZ, NLTAIR2EZ, NLTAIR2EZCR, WL, ALO3 & ALO4 or DALI, D8 2000-4500 lumens w/JOT. Top access installation or 13.5" plenum clearance required for nonmodel installation. Not available with integral test switch.
ELR	Not available w/ET, ELCA, QDS, CP, 347V, NPS80EZ,CR, NLTAIR2EZ, NLTAIR2EZCR, ALO3 & ALO4 or DALI, D8 2000-4500 lumens w/JOT.
ET, ETCA	Not available with ETSR2, ELR, E1WNCP, or NPS80.
WL	Not available with WW. All CP is not luminous, except WW (Damp). IP55 rated.
QDS	Must be specified for use with DIM_PFWCD. Not available with 347V, CP, ELR, E1WNCP, E10WCPR.
JOT	Not available with CP, nLight options, ULC, or DALI drivers. Max 4500 lumens. Paired lumens and CCT only. Not available with 2000-4500lm in conjunction with battery pack.
NPS80EZ	Not available with CP, QDS, ELR, E1WNCP, E10WCPR, DALI, D1, D8 D10 drivers. Not available in any 347V luminaires.
NPS80EZCR	Not available with CP, QDS, ELR, E1WNCP, E10WCPR, DALI, D1, D8 D10 drivers. 1200 LM or less. 120V OR 277V only. Not available with 347V.
NLTAIR2	Not available with CP, QDS, DALI, D1, D8 D10 drivers. See ULTA for sequence of operation table. Use emergency luminaires with this option can be used as a normal power sensing device for nLight AIR devices and luminaires with D8 emergency options.
NLTAIR2EZ	Not available with CP, QDS, ELR, E1WNCP, E10WCPR, DALI, D1, D8 D10 drivers. Not available with 347V.
NLTAIR2EZ	Not available with CP, QDS, ELR, E1WNCP, E10WCPR, DALI, D1, D8 D10 drivers. See ULTA for sequence of operation table.
CP	Must be specified for use with DIM_PFWCP. Not available with, QDS, ELR, ETS, ELR, E1WNCP, E10WCPR, 347V, JOT, NPS80EZ, NPS80EZCR, NLTAIR2, NLTAIR2EZ, NLTAIR2EZ, D1, D8 D10 drivers.
DMG	Not available with NPS80EZ, NPS80EZCR, NLTAIR2, NLTAIR2EZ, NLTAIR2EZCR, D1, D8 D10 drivers.
EAL	Not available with Hard luminaire CCT. Max 4500 lumens.
WW	Not available with WL, SL and E10WCP. Must be ordered with LBR6WWW series.
TRW, TRBL	Available with WD and AR reflectors only.
WL, WW, WR	Not available with L55 reflector finish.
TRALTBD, FRALTBD	FRALTBD for pricing only. Replace with applicable RAL number and finish when ready to order. See the RAL BROCHURE for available color options.
TCPC, FCPC	CPC options for pricing only. Custom color chip needs to be sent in to your Customer Resolution specialist before order can be processed. Click HERE for more details.

‡ Option Value Ordering Restrictions

NOTES
1 Indicates option value has ordering restrictions. Please reference the Option Value Ordering Restrictions chart below.

Performance Data

Symmetric Clear Lens, 70CRI

Performance Package	Setting	Total Watts	30K (3000K, 70 CRI) Lumens	30K (3000K, 70 CRI) LPW	40K (4000K, 70 CRI) Lumens	40K (4000K, 70 CRI) LPW	50K (5000K, 70 CRI) Lumens	50K (5000K, 70 CRI) LPW
ALO2	1	26	1,559	136	1,780	145	1,833	147
ALO2	2	45	4,237	139	4,662	148	4,755	150
ALO2	3	61	8,018	145	9,429	154	9,550	157
ALO2	4	79	11,239	142	12,006	152	12,172	154
ALO2	5	96	13,609	142	14,518	151	14,740	154
ALO2	6	114	15,617	137	16,683	146	16,915	148
ALO2	7	132	17,236	133	18,775	142	19,036	144
ALO2	8	141	18,753	133	20,033	142	20,312	144
ALO3	1	14	1,759	126	1,879	134	1,905	136
ALO3	2	25	3,100	124	3,312	132	3,358	134
ALO3	3	35	4,297	129	4,590	138	4,653	139
ALO3	4	39	5,586	143	5,968	153	6,051	155
ALO3	5	47	6,765	144	7,227	154	7,327	156
ALO3	6	53	7,763	146	8,293	156	8,408	159
ALO3	7	60	8,737	146	9,333	156	9,463	158
ALO3	8	66	9,532	141	9,958	151	10,097	153

Asymmetric Clear Lens, 70CRI

Performance Package	Setting	Total Watts	30K (3000K, 70 CRI) Lumens	30K (3000K, 70 CRI) LPW	40K (4000K, 70 CRI) Lumens	40K (4000K, 70 CRI) LPW	50K (5000K, 70 CRI) Lumens	50K (5000K, 70 CRI) LPW
ALO2	1	26	1,539	134	1,757	143	1,810	145
ALO2	2	45	4,628	125	4,652	134	4,096	135
ALO2	3	61	7,917	130	8,599	141	8,418	141
ALO2	4	79	10,142	128	10,834	137	10,984	139
ALO2	5	96	12,281	128	13,119	137	13,301	139
ALO2	6	114	14,093	124	15,055	132	15,264	134
ALO2	7	132	15,860	120	16,943	128	17,176	130
ALO2	8	141	16,293	116	18,278	129	18,529	131
ALO3	1	14	1,587	113	1,696	121	1,719	123
ALO3	2	25	2,796	112	2,989	120	3,030	121
ALO3	3	31	3,877	125	4,142	134	4,199	135
ALO3	4	39	5,041	129	5,385	138	5,460	140
ALO3	5	47	6,105	130	6,521	139	6,612	141
ALO3	6	53	7,005	132	7,483	141	7,587	143
ALO3	7	60	7,884	131	8,422	140	8,539	142
ALO3	8	66	8,412	127	8,986	136	9,111	138

Electrical Load

Performance Package	System Watts	Current (A) 120V	208V	240V	277V	347V
P1	11W	0.090	0.055	0.049	0.046	0.045
P2	16W	0.141	0.081	0.072	0.064	0.059
P3	24W	0.202	0.117	0.103	0.091	0.079
P4	30W	0.280	0.162	0.144	0.128	0.095
P5	51W	0.471	0.272	0.239	0.213	0.158

Lumen Ambient Temperature (LAT) Multipliers

Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

Ambient	Lumen Multiplier
0°C	32°F 1.04
10°C	50°F 1.03
20°C	68°F 1.01
25°C	77°F 1.00
30°C	86°F 0.99
40°C	104°F 0.97

Lumen Output in Emergency Mode (4000K, 80 CRI)

Option	Lumens
E4WH	693
E8WC	1,413

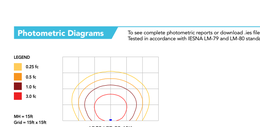
Projected LED Lumen Maintenance

Data references the extrapolated performance projections for the platforms noted in a 25°C ambient, based on 10,000 hours of LED testing (tested per IESNA LM-80-08 and projected per IESNA TM-21-11). To calculate L87, use the lumen maintenance factor that corresponds to the desired number of operating hours below. For other lumen maintenance values, contact factory.

Operating Hours	0	25,000	50,000	100,000
Lumen Maintenance Factor	1.0	>0.96	>0.93	>0.88

Photometric Diagrams

To see complete photometric reports or download .ies files for this product, visit the Lithonia Lighting ARC LED homepage. Tested in accordance with IESNA LM-79 and LM-80 standards.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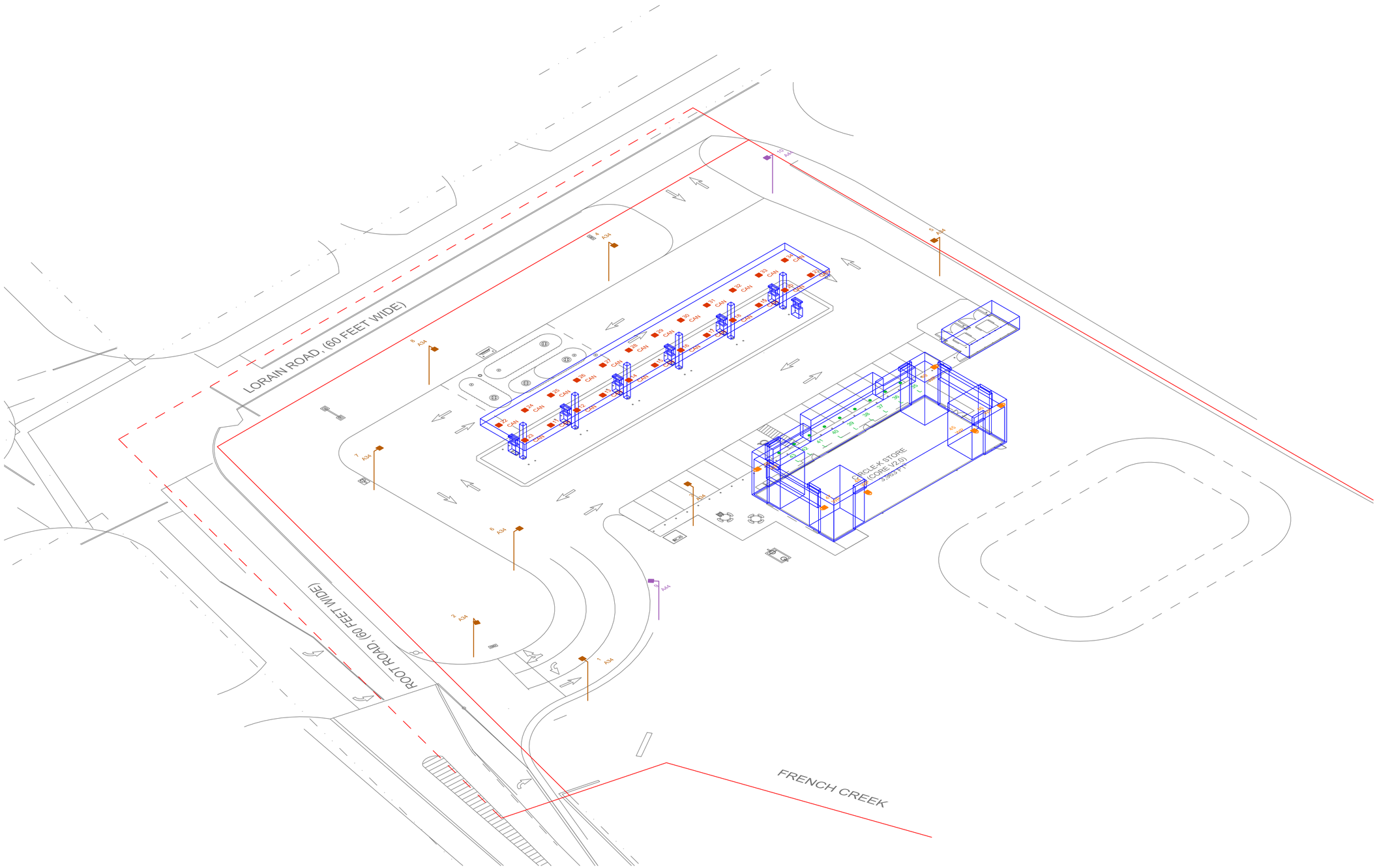
1.0 fc

AREA

CANOPY

DOWNLIGHT

WALL MOUNTED



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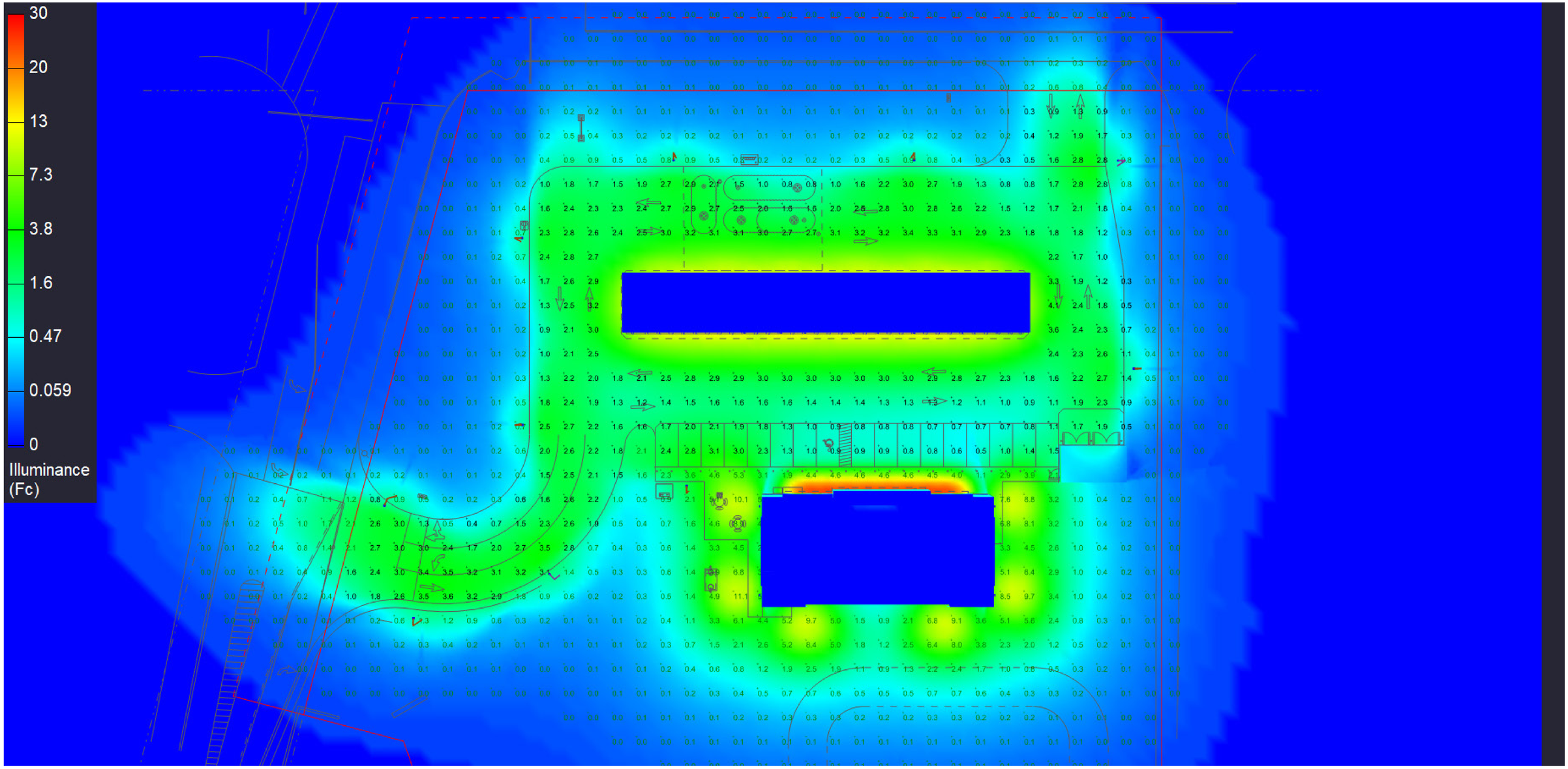
CIRCLE K
RIDGEVILLE, OH

DRAWING NUMBER:
RL-9873-S1

CIRCLE K TM



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DRAWING NUMBER:
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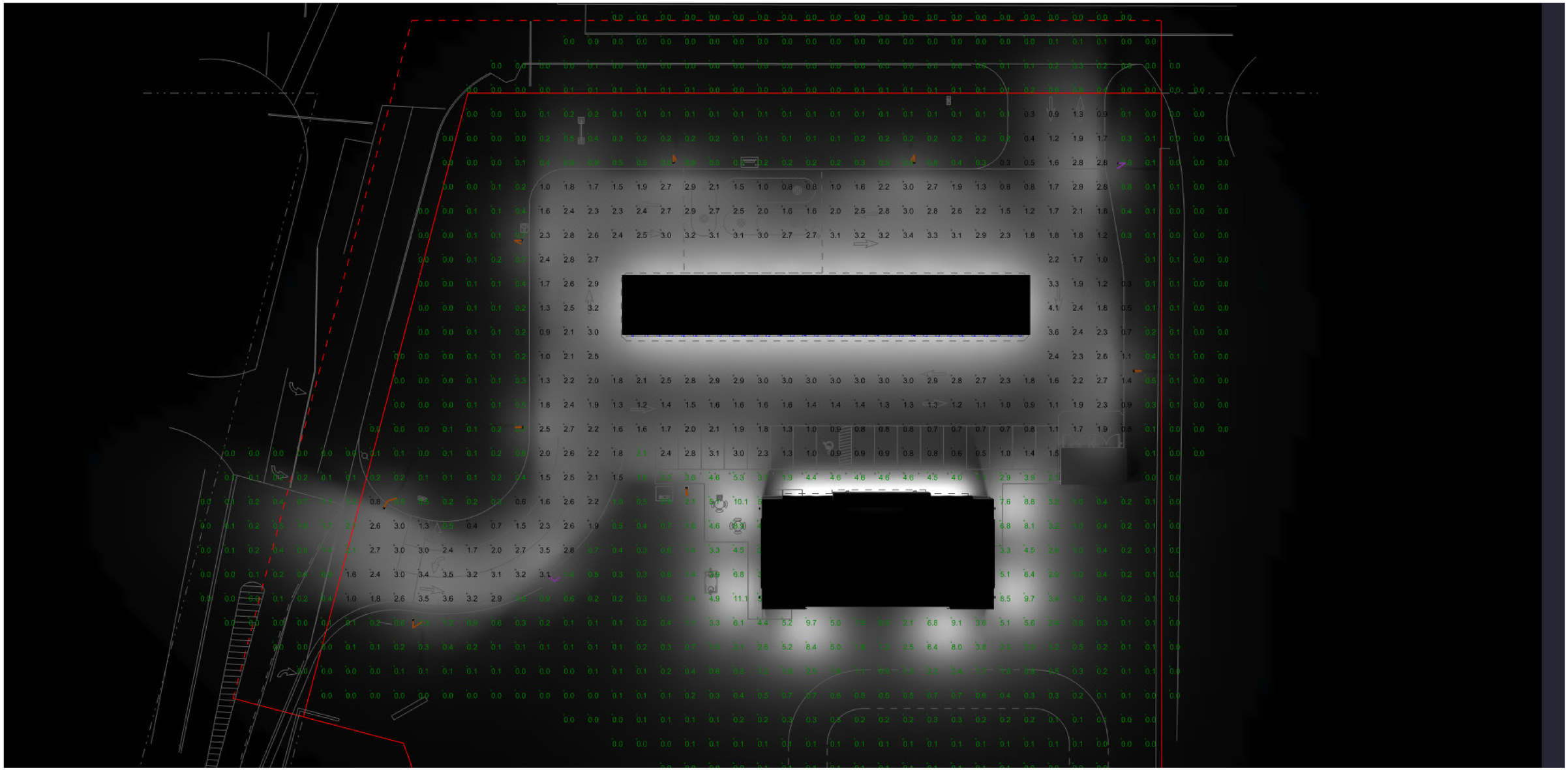
CIRCLE K TM



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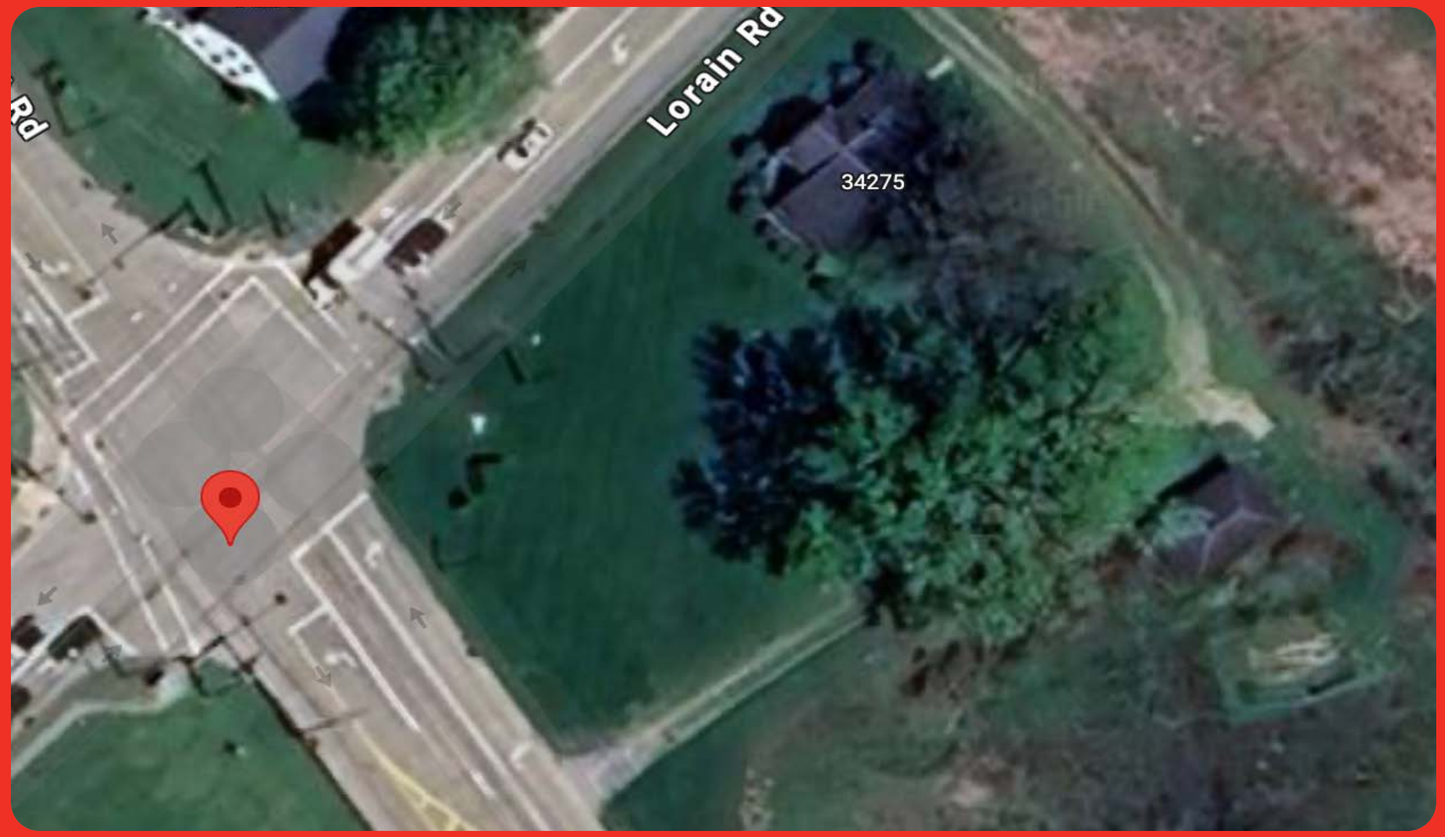
PROJECT NAME:
CIRCLE K
RIDGEVILLE, OH
DRAWING NUMBER:
RL-9873-S1

CIRCLE K TM



EXTERIOR SIGNS

STORE NUMBER
0000

LOCATION
RIDGEVILLE, OH

ADDRESS
LORAIN RD & ROOT RD

MARKET
GREAT LAKES

DATE
04/23/2025

REVISION HISTORY

R0 (12/13/2023)
- Initial sign package generated

R01 (12/20/2023)
- MIDs moved

R02 (12/21/2023)
- Site signs moved

R03 (01/17/2024)
- Store signs updated
- Store elevation updated

R04 (8/30/2024)
- Updated site plan

R05 (04/23/2025)
- Updated site plan CSP 2.0P
- Canopy updated
- MIDs updated
- Directionals updated

EXISTING PROPERTY PHOTOS

CORPORATE IDENTIFICATION SOLUTIONS

CLIENT	LOCATION	DRAWN BY	REVISION
CIRCLE K	RIDGEVILLE, OH	GC	05
SITE NUMBER	**ACCOUNT REP**	**DATE**	**SCALE**
0000	BEN DEHAYES	04/25/25	AS NOTED

CORPORATE ID SOLUTIONS
5563 N ELSTON AVE.
CHICAGO, IL 60630
P: 773-763-9600 F: 773-763-9606
CORPORATEIDSOLUTIONS.COM

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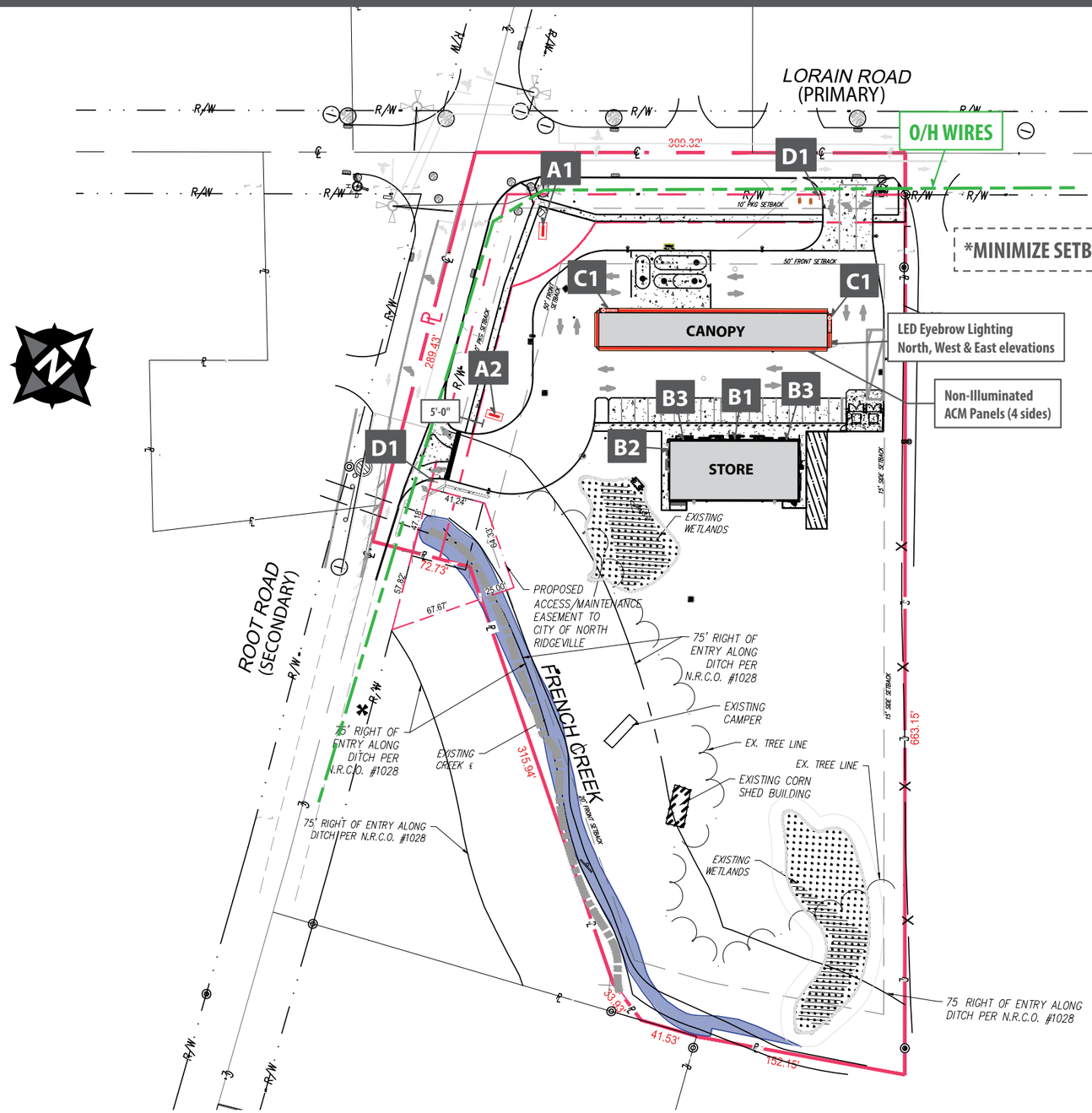
LORAIN RD & ROOT RD



SCOPE OF WORK		
SIGN	DESCRIPTION	QTY
A	MID Sign	2
B	Store Building Signs	4
C	Canopy Signs	2
D	Directional Signs	2

NOTE: MID LOCATION SUBJECT TO CITY APPROVAL

CORPORATE IDENTIFICATION SOLUTIONS

CLIENT	LOCATION	DRAWN BY	REVISION
CIRCLE K	RIDGEVILLE, OH	GC	05
SITE NUMBER	**ACCOUNT REP**	**DATE**	**SCALE**
0000	BEN DEHAYES	04/25/25	AS NOTED

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SIGNATURE _____

LANDSCAPING PLAN

LANDSCAPING PLAN HAS NOT BEEN PROVIDED FOR THIS SITE

CORPORATE IDENTIFICATION SOLUTIONS

CLIENT	LOCATION	DRAWN BY	REVISION	CORPORATE ID SOLUTIONS
CIRCLE K	RIDGEVILLE, OH	GC	05	5563 N ELSTON AVE. CHICAGO, IL 60630 P: 773-763-9600 F: 773-763-9606 CORPORATEIDSOLUTIONS.COM
SITE NUMBER	**ACCOUNT REP**	**DATE**	**SCALE**	
0000	BEN DEHAYES	04/25/25	AS NOTED	

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SIGNATURE _____

UTILITY PLAN

UTILITY PLAN HAS NOT BEEN PROVIDED FOR THIS SITE

CORPORATE IDENTIFICATION SOLUTIONS

CLIENT: CIRCLE K
SITE NUMBER: 0000
LOCATION: RIDGEVILLE, OH
ACCOUNT REP: BEN DEHAYES
DRAWN BY: GC
DATE: 04/25/25
REVISION: 05
SCALE: AS NOTED

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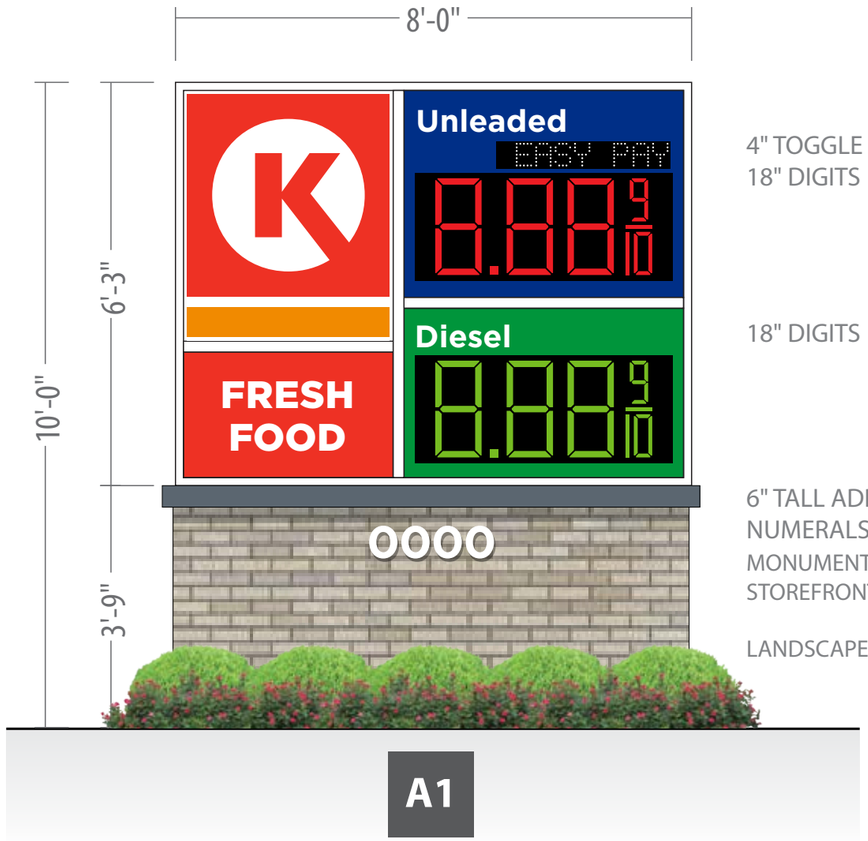
SIGNATURE _____ DATE _____

PRICER ALWAYS TOWARDS ROAD



4" TOGGLE
18" DIGITS

18" DIGITS

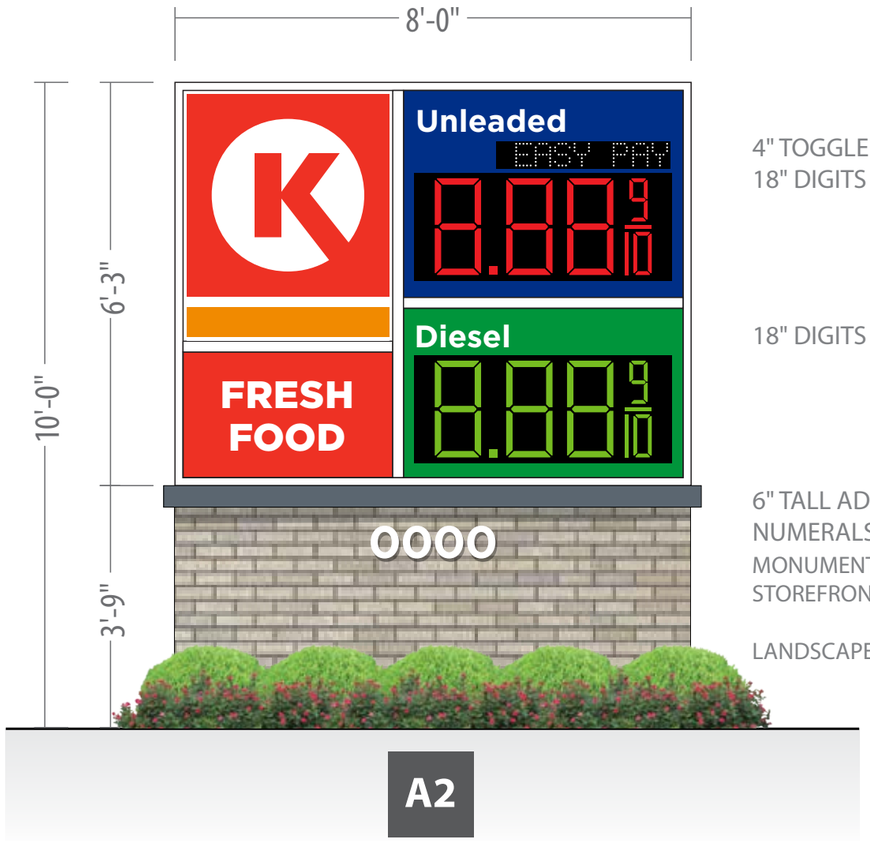
6" TALL ADDRESS NUMERALS
MONUMENT BASE TO MATCH STOREFRONT MASONRY

LANDSCAPE REQUIRED BY CITY

A1

MID SIGN
50 SF

PRICER ALWAYS TOWARDS ROAD



4" TOGGLE
18" DIGITS

18" DIGITS

6" TALL ADDRESS NUMERALS
MONUMENT BASE TO MATCH STOREFRONT MASONRY

LANDSCAPE REQUIRED BY CITY

A2

MID SIGN
50 SF

CORPORATE IDENTIFICATION SOLUTIONS

CLIENT	LOCATION	DRAWN BY	REVISION
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SITE NUMBER	**ACCOUNT REP**	**DATE**	**SCALE**
0000	BEN DEHAYES	04/25/25	AS NOTED

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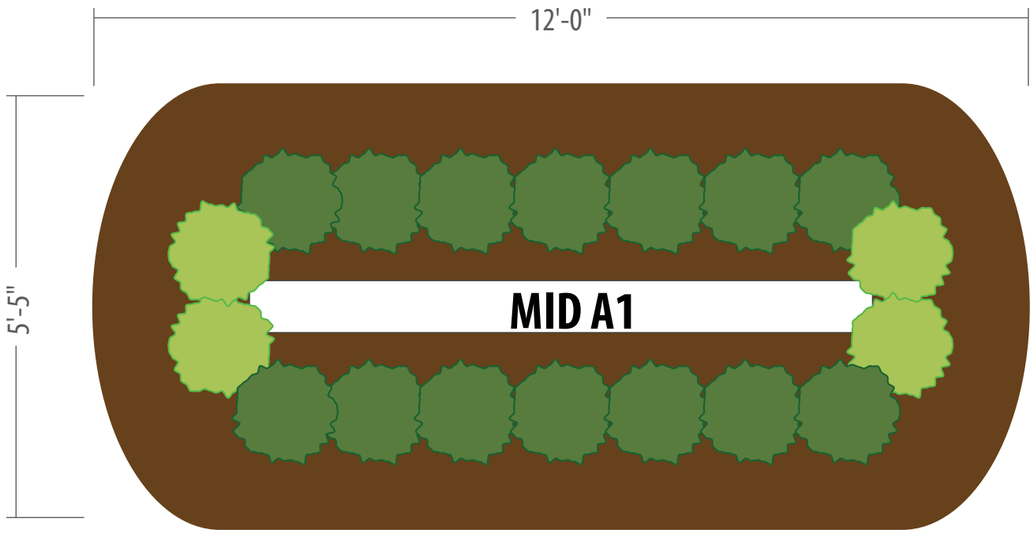
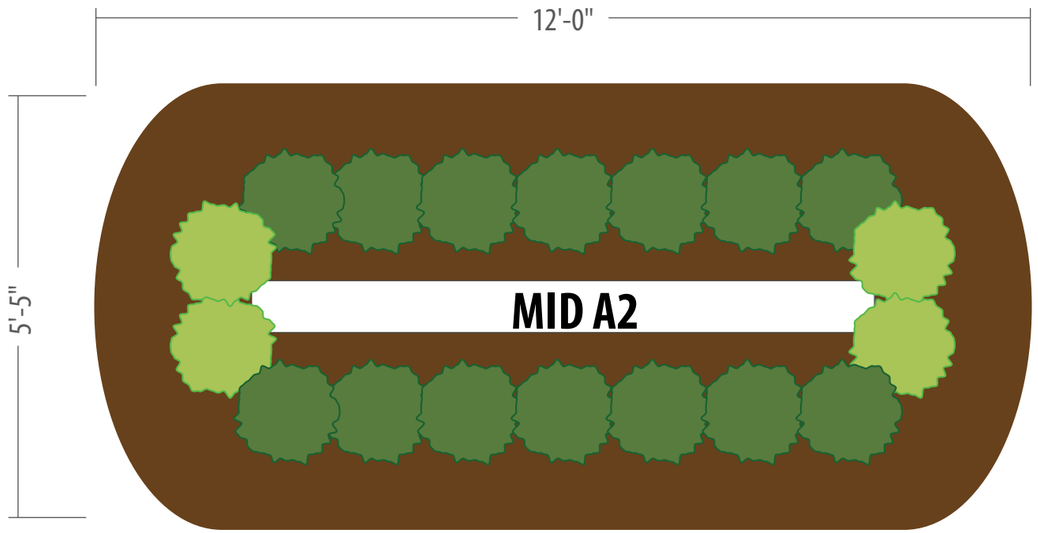
SIGNATURE _____

LEGEND

- Mulch
- Juniper Shrubs
- Flowering Plants



LANDSCAPING AREA (TOP VIEW) = **65.0 SQ FT.**



LANDSCAPING AREA (TOP VIEW) = **65.0 SQ FT.**

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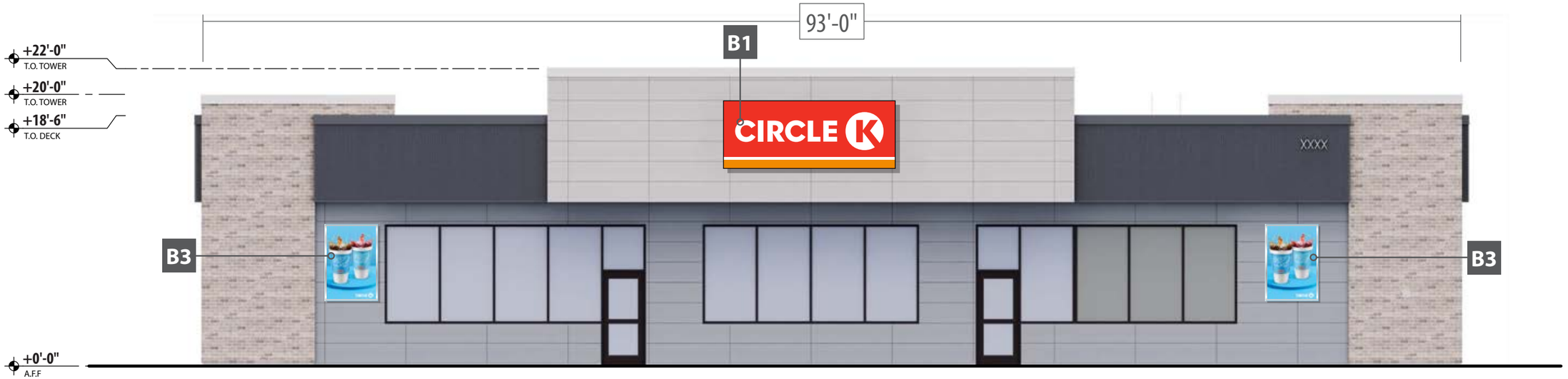
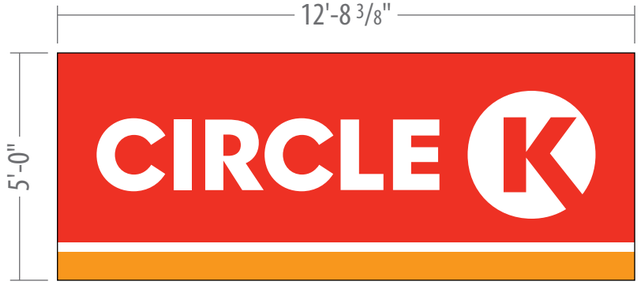


NORTH ELEVATION

C-STORE SCOPE OF WORK

SIGN	DESCRIPTION	QTY	SIZE	AREA
B1	Illuminated Circle K Shop Sign	1	5'-0" x 12'-8 3/8"	**63.5 SF**
B2	Illuminated Circle K Totem Sign	1	5'-0" x 4'-2"	**20.8 SF**
B3	Non-illuminated Snap Frame	2	5'-4" x 3'-8"	**19.5 SF**

B3



B1

B3

CORPORATE IDENTIFICATION SOLUTIONS

CLIENT	LOCATION	DRAWN BY	REVISION
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SITE NUMBER	**ACCOUNT REP**	**DATE**	**SCALE**
0000	BEN DEHAYES	04/25/25	AS NOTED

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SIGNATURE _____ DATE _____

Note: light fixture to be relocated

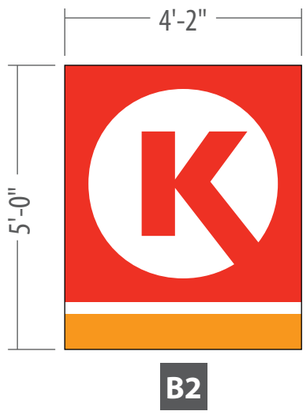
WEST ELEVATION

EAST ELEVATION

LOWER SIGN IF NEEDED TO ENSURE ELECTRICAL IS BELOW ROOFLINE

C-STORE SCOPE OF WORK

SIGN	DESCRIPTION	QTY	SIZE	AREA
B1	Illuminated Circle K Shop Sign	1	5'-0" x 12'-8 3/8"	63.5 SF
B2	Illuminated Circle K Totem Sign	1	5'-0" x 4'-2"	20.8 SF
B3	Non-illuminated Snap Frame	2	5'-4" x 3'-8"	19.5 SF



SCALE: 3/8"=1'-0"

CORPORATE IDENTIFICATION SOLUTIONS

CLIENT	LOCATION	DRAWN BY	REVISION
CIRCLE K	RIDGEVILLE, OH	GC	05
SITE NUMBER	**ACCOUNT REP**	**DATE**	**SCALE**
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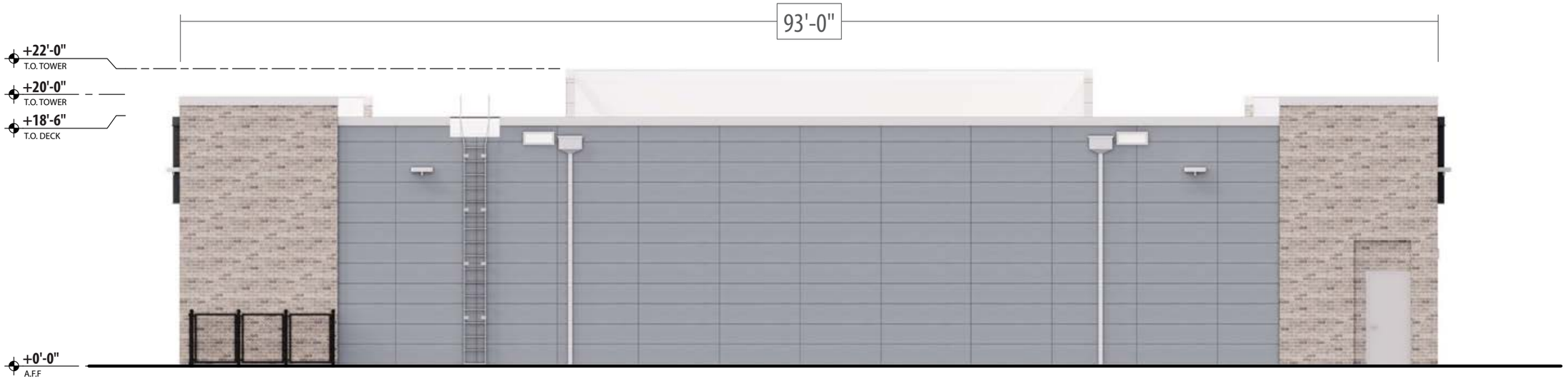
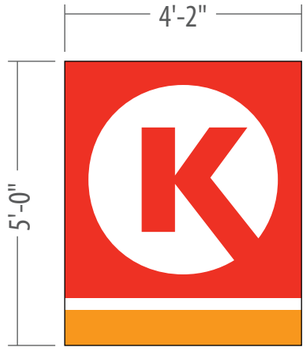


SOUTH ELEVATION

C-STORE SCOPE OF WORK

SIGN	DESCRIPTION	QTY	SIZE	AREA
B1	Illuminated Circle K Shop Sign	1	5'-0" x 12'-8 3/8"	63.5 SF
B2	Illuminated Circle K Totem Sign	1	5'-0" x 4'-2"	20.8 SF
B3	Non-illuminated Snap Frame	2	5'-4" x 3'-8"	19.5 SF



B2

SCALE: 3/8"=1'-0"

CORPORATE IDENTIFICATION SOLUTIONS

CLIENT	LOCATION	DRAWN BY	REVISION
CIRCLE K	RIDGEVILLE, OH	GC	05
SITE NUMBER	**ACCOUNT REP**	**DATE**	**SCALE**
0000	BEN DEHAYES	04/25/25	AS NOTED

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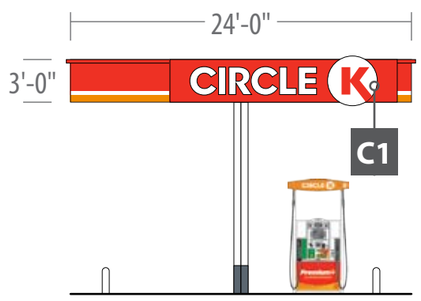
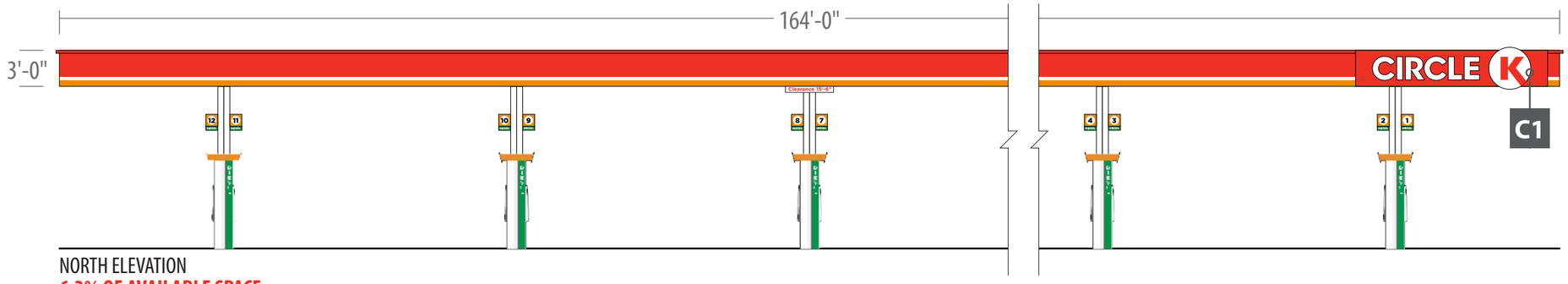
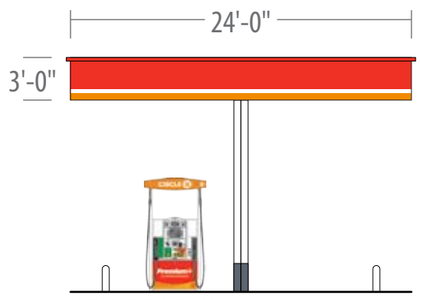


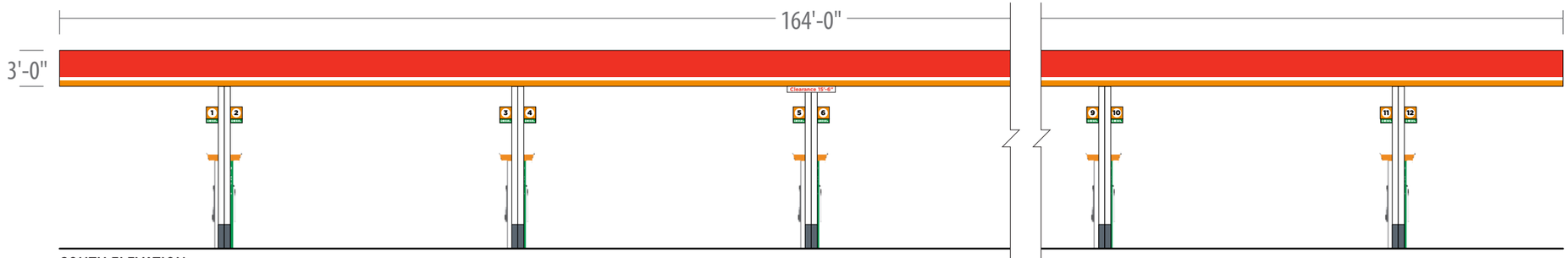
EAST ELEVATION
42.8% OF AVAILABLE SPACE



NORTH ELEVATION
6.3% OF AVAILABLE SPACE



WEST ELEVATION

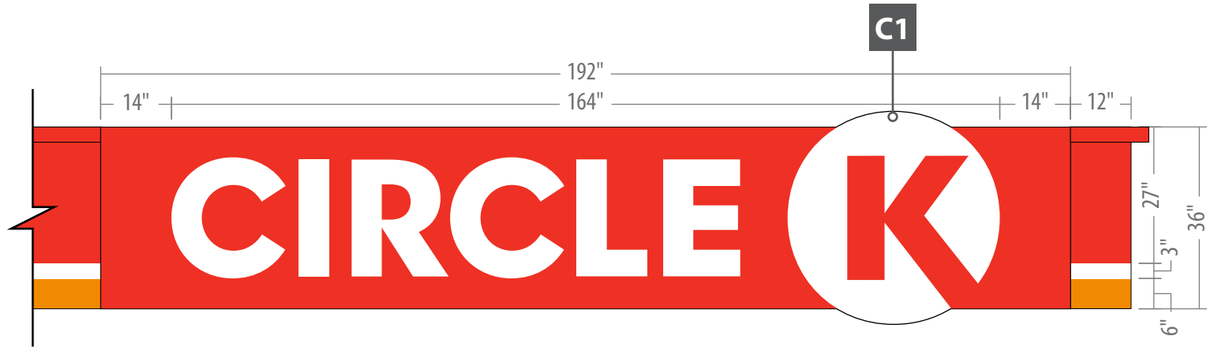


SOUTH ELEVATION

FUEL CANOPY SCOPE OF WORK

SIGN	DESCRIPTION	QTY	SIZE	AREA
C1	Illuminated Circle K Wordmark	2	24" x 112" + 42" x 42"	30.8 SF

PAINT SCHEDULE (SEMI-GLOSS FINISH)
- SW #7570 EGRET WHITE - COLUMN FROM GRAY TO BOTTOM OF CANOPY
- SW #6236 GRAYS HARBOR - COLUMNS FROM GRADE TO 24" ABOVE GRADE + BOLLARDS



NON-ILLUMINATED RED, WHITE, AND ORANGE ACM PANELS
LED EYEBROW DOWNLIGHTING ON EAST, WEST, NORTH ELEVATIONS

CORPORATE IDENTIFICATION SOLUTIONS

CLIENT	LOCATION	DRAWN BY	REVISION
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SITE NUMBER	**ACCOUNT REP**	**DATE**	**SCALE**
0000	BEN DEHAYES	04/25/25	AS NOTED

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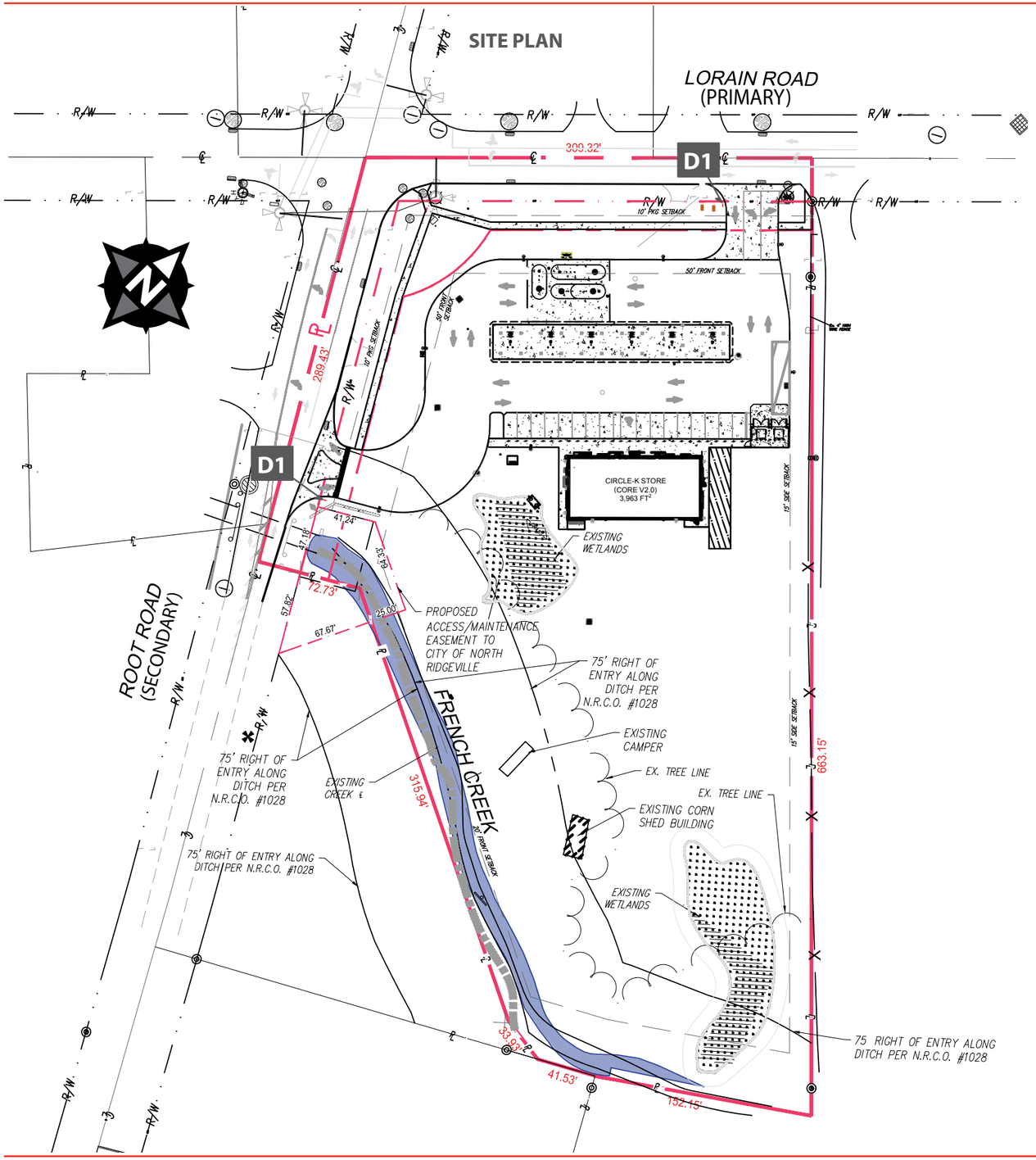
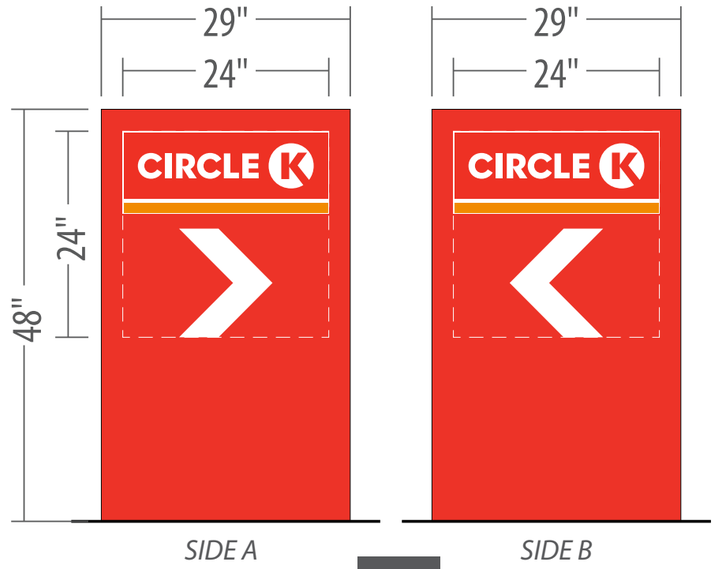
SIGNATURE _____ DATE _____

SITE PLAN





D1

NON-ILLUMINATED

4.0 SF

QTY (2)

CORPORATE IDENTIFICATION SOLUTIONS

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SIGNATURE _____ **DATE** _____

TRAFFIC IMPACT STUDY

CITY OF NORTH RIDGEVILLE, LORAIN COUNTY, OHIO

PROPOSED CIRCLE K GAS STATION / CONVENIENCE STORE

PREPARED BY GPD GROUP FOR: CIRCLE K STORES, INC. AND COLLIERS ENGINEERING AND DESIGN

REVISED JANUARY 2025

GPD GROUP®
Glaus, Pyle, Schomer, Burns & DeHaven, Inc.

TRAFFIC IMPACT STUDY

Proposed Circle K Gas Station / Convenience Store

City of North Ridgeville, Lorain County, Ohio

Prepared For:

Circle K Stores, Inc.
Colliers Engineering and Design

Revised January 2025

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I. Purpose:

This Traffic Impact Study (TIS) is being prepared at the request of Circle K Stores Inc. and Colliers Engineering and Design in association with the proposed construction of a Circle K convenience store and gas station to be located at the southeast corner of the Lorain Road / Root Road intersection in the City of North Ridgeville, Lorain County, Ohio. The purpose of this TIS is to analyze the vehicular operating conditions in the vicinity of the proposed development both before and after construction to determine what, if any, impact the project will have on the surrounding roadway network.

II. Project Setting:

Study Area

The subject property is currently a single-family residence. The existing developments within the study area are a mix of residential and commercial uses with an undeveloped lot, a single-family residence, and a church on the other corners of the Lorain Road / Root Road intersection. See **Figure 1** for a project location map and **Figure 2** for an aerial photograph of the study area. The study area and parameters were developed in consultation with city officials.

Lorain Road is primarily a two-lane concrete roadway with one travel lane in each direction and turn lanes at select intersections. The posted speed limit along Lorain Road is 35 mph. According to information obtained from the Ohio Department of Transportation (ODOT), Lorain Road is classified as an Urban Minor Arterial.

Root Road is a two-lane roadway with one travel lane in each direction. Root Road has concrete pavement at the Lorain Road / Root Road intersection and asphalt pavement north and south of the intersection. The posted speed limit along Root Road is 35 mph. According to information obtained from the ODOT, Root Road is classified as an Urban Minor Arterial.

The intersection of Lorain Road / Root Road is currently signalized utilizing a typical mast arm configuration with signal poles located on each corner of the intersection. This intersection consists of four approaches with the following lane configurations: EB, WB and SB approaches – two lanes (left, thru-right) and NB approach – three lanes (left, thru, right). For purposes of this study, Lorain Road is considered east-west and Root Road is considered north-south. There are protected-permitted left turn phases for all approaches.

Traffic Counts

For this traffic analysis, Tri-State Traffic Data, Inc. performed turning movement traffic counts at the Lorain Road / Root Road intersection. The count was performed from 6:00 AM – 9:00 AM and 3:00 PM – 6:00 PM on Wednesday, May 8, 2024. See **Appendix A** for printouts of the turning movement counts.

According to ODOT's Transportation Information Mapping System (TIMS), the Lorain Road average daily traffic (ADT) in 2023 was 10,960 vehicles east of the Lorain Road / Root Road intersection and 4,642 vehicles west of the intersection. The Root Road ADT in 2023 was 2,797 vehicles both north and south of the Lorain Road / Root Road intersection.

III. Proposed Development:

The proposed development consists of the construction of a 3,962 Square foot (SF) convenience store and a gasoline station with 12 fueling positions. The proposed development will be constructed on the southeast corner of the Lorain Road / Root Road intersection. See **Appendix B** for a preliminary site plan.

As shown on the preliminary site plan, access to the proposed Circle K gas station and convenience store will be provided by one full movement driveway along Lorain Road referred to as Circle K Driveway #1. Additional access to the proposed Circle K will be provided by one right-in, right-out driveway along Root Road referred to as Circle K Driveway #2.

IV. Trip Generation:

The trip generation calculations were performed for the proposed Circle K gas station and convenience store utilizing the ITETripGen Web-based App Version 4.0.0.421, based on the Institute of Transportation Engineers (ITE) Trip Generation Manual, 11th Edition. This manual includes data from numerous trip generation studies of different land uses that have been performed by public agencies, developers, consulting firms and associations and submitted to ITE. It serves as a tool for estimating the number of vehicle trips generated by a proposed development. For this study, the trip generation calculations will evaluate the weekday AM and PM peak periods.

According to the information contained in the ITETripGen Web-based App Version 4.0.0.421, the proposed Circle K convenience store and fuel pumps are expected to generate the following trip ends once constructed:

LAND USE 945 – Convenience Store / Gas Station

i. Weekday AM Peak Hour (Peak Hour of Adjacent Street):
   = 224 trip ends (112 enter and 112 exit)
   a. Pass-By Trips (76%)
      = 170 trip ends (85 enter and 85 exit)
   b. Net Primary Trips
      = 54 trip ends (27 enter and 27 exit)

ii. Weekday PM Peak Hour (Peak Hour of Adjacent Street):
   = 216 trip ends (108 enter and 108 exit)
   a. Pass-By Trips (75%)
      = 162 trip ends (81 enter and 81 exit)
   b. Net Primary Trips
      = 54 trip ends (27 enter and 27 exit)

Note that the independent variable utilized in the trip generation calculations was 'Gross Floor Area', which in this case is 3,962 SF. See **Appendix C** for the detailed trip generation calculations for the proposed Circle K store market and fuel pumps. Trip generation was evaluated using fueling positions as the independent variable which indicates approximately 30 fewer AM trips and nearly the same PM trips, therefore the 'Gross Floor Area' method was used.

A certain portion of vehicles that will travel to and from the site will occur as pass-by traffic. Pass-by trips are made as intermediate stops on the way from an origin to a primary trip destination without a route diversion. Since these trips are attracted by the traffic passing the site on the adjacent roadway, pass-by vehicles that are currently traveling along Lorain Road and Root Road will now be rerouted into and out of the site. Trip generation studies from ITE for a convenience store/gas station estimate that pass-by trips make up an average of 76% of the total site trips during the weekday AM peak hour and 75% during the PM peak hour. The remaining trips traveling to and from the site are referred to as primary trips as they consist of new trips on the roadway network traveling directly between the origin and the primary trip destination. While the pass-by capture reduction was applied to the trip generation calculations for the proposed Circle K, it should be noted that these pass-by trips are still assigned as new turning movements entering and exiting the site at the proposed access driveways.

V. Traffic Volumes:

'No-Build' Traffic Volumes

Design hour volumes (DHV) were developed for the study area using the peak hour to design hour factors that are published by the ODOT Office of Statewide Planning and Research. The design hour factors utilized to develop the DHV are dependent upon the roadway's functional classification as well as the day of the week and month the traffic count was performed. These factors are then applied to the raw turning movement counts to convert the existing volumes to DHV. For this study, a design hour factor of 1.10 was applied to the Lorain Road and Root Road volumes as this data was obtained on a Wednesday in May.

The construction of the proposed Circle K is anticipated to be completed in the year 2025 which will serve as the 'Opening Year' for the study, while the 'Design Year' will be 2045 (twenty-year design criteria). According to ODOT's Traffic Forecast Modeling System (TFMS), the Root Road section located within the study area is expected to experience a growth rate of approximately +1.07% per year while Lorain Road is expected to experience no growth. A +1.00% annual growth rate was used to calculate the future traffic volumes on both roads to account for the expected growth on Root Road and future residential developments planned for the area. See **Appendix D** for a printout of the TFMS report. The annual growth rate was applied to the design hour volumes to develop the future Opening Year 2025 and Design Year 2045 background traffic volumes. **Figure 3** shows the Opening Year 2025 'No-Build' peak hour traffic volumes and **Figure 4** shows the Design Year 2045 'No-Build' peak hour traffic volumes.

Site Trip Distribution & Assignment

The new trips for the convenience store and fuel pumps discussed in the Trip Generation section were distributed and assigned to the roadway network based on existing travel volumes/patterns near the site, the surrounding land uses, the roadway network, and engineering judgment. It was estimated that 30% of the projected site trips will travel to/from the east on Lorain Road, 30% will travel to/from the south on Root Road, 20% will travel to/from the west on Lorain Road, and the remaining 20% will travel to/from the north on Root Road. Pass-by trips, since they occur from traffic

already traveling by the site, were developed, and distributed based on the existing directional distribution of peak hour traffic volumes along Lorain Road and Root Road. Note that the pass-by trips from the north on Root Road were assigned to/from Circle K Driveway #1 on Lorain Road as left-turns as left-turns entering and exiting Circle K Driveway #2 will not be permitted.

The peak hour distribution and assignment of new site trips, including both primary and pass-by trips for the convenience store and fuel pumps are included in **Appendix E**. An additional figure that combines all primary and pass-by trips to show the total net traffic from the proposed site is also provided.

'Build' Traffic Volumes

To create the 'Build' traffic volumes, the site trips discussed in the previous section were added to the Opening Year 2025 and Design Year 2045 'No-Build' peak hour traffic volumes. The 'Build' traffic volumes will allow a direct comparison between the projected traffic conditions without the development and those following the completion of the proposed Circle K convenience store and gas station. **Figure 5** shows the Opening Year 2025 'Build' peak hour traffic volumes and **Figure 6** shows the Design Year 2045 'Build' peak hour traffic volumes.

VI. Traffic Analysis:

Crash History Evaluation

Crash data was obtained from ODOT's GCAT system for calendar years 2021-2023 at the Lorain Road / Root Road intersection and all four approaches within 500' of the intersection. A total of 16 crashes were reported during the three-year analysis period, with seven rear-end crashes, three right-turn crashes, two left-turn crashes, two angle crashes, one sideswipe-passing crash, and one backing crash. Two crashes resulted in minor injuries, with no serious injury or fatal crashes occurring at the intersection.

The leading crash type at the Lorain Road / Root Road intersection is the seven rear-end crashes. Rear-ends are commonly seen at signalized intersections and typically become more frequent with higher traffic volumes as occurring at this intersection. The seven rear-end crashes at the Lorain Road / Root Road intersection are not consolidated to any approach.

Statewide and regional crash maps were reviewed to determine if the Lorain Road / Root Road intersection is identified as a high-crash location. According to the 2021 Highway Safety Improvement Program (HSIP) Priority Locations map for Lorain County, the Lorain Road / Root Road intersection is not a safety priority. The Safety Integrated Project Map (SIPM) for Lorain County indicates Lorain Road and Root Road are high priorities for safety improvements, however this map does not identify the Lorain Road / Root Road as a high priority intersection. This crash data does not point to any identifiable crash patterns and the proposed Circle K is not expected to increase the crash rate at this intersection. See **Appendix F** for the crash data summary and crash maps.

Auxiliary Turn Lane Warrant Analysis

Turn lane warrant analyses were performed at the two unsignalized site driveways to determine whether left-turn or right-turn lanes will be warranted based on the projected traffic volumes. ODOT publishes the Location and Design Manual, Volume 1, which includes warrant charts for auxiliary turn lanes. These warrant charts were utilized to determine if auxiliary turn lanes are warranted. The results for the Design Year 2045 'Build' conditions are summarized in **Table 1**. See **Appendix G** for the auxiliary turn lane warrant charts.

Table 1: Auxiliary Turn Lane Warrant Analysis Summary – Design Year 2045 'Build' Conditions

Intersection	Auxiliary Turn Lane Warrants 'Build' Conditions
Lorain Road / Circle K Driveway #1	
Eastbound Right-Turn Lane	**Warranted**
Westbound Left-Turn Lane	**Warranted**
Root Road / Circle K Driveway #2	
Northbound Right-Turn Lane	Not Warranted

As shown in **Table 1**, the auxiliary turn lane warrant analysis determined that an eastbound right-turn lane and westbound left-turn lane are warranted at the Lorain Road / Circle K Driveway #1 intersection under the Design Year 2045 'Build' traffic conditions. Although an eastbound right-turn lane is warranted, it is not recommended to be constructed as the turn lane taper would begin immediately east of the Lorain Road / Root Road intersection. In addition, Lorain Road is a low speed road and right-turn lanes are typically constructed where deceleration is needed or there are very high site volumes. There are no similar commercial developments in North Ridgeville that have right-turn lanes. A northbound right-turn lane is not warranted at the Root Road / Circle K Driveway #2 intersection.

HCS Intersection Capacity Analysis

Intersection capacity analyses were performed for the Design Year 2045 'No-Build' and 'Build' scenarios to determine the operating conditions that would be expected at each study intersection. The quality of the operating conditions experienced by an intersection is measured in terms of Level-of-Service (LOS). Levels-of-Service can range from LOS A to LOS F.

Level-of-Service A, B, C, D and E are considered acceptable in an area within Metropolitan Planning Organization (MPO) for movements and approaches while the overall intersection must operate at LOS D or better. Level-of-Service F is considered unacceptable with significant levels of delay experienced by vehicles. North Ridgeville is located within the Northeast Ohio Areawide Coordinating Agency (NOACA) MPO. The thresholds related to average control delay for both signalized and unsignalized intersections are as follows:

Level-of- Service	Delay Threshold – Signalized (Sec)	Delay Threshold – Unsignalized (Sec)
A	< 10	< 10
B	> 10 – 20	> 10 – 15
C	> 20 – 35	> 15 – 25
D	> 35 – 55	> 25 – 35
E	> 55 – 80	> 35 – 50
F	> 80	> 50

The quantity of vehicles that a turning movement or approach has sufficient capacity for is measured with the volume-to-capacity ratio (v/c). A v/c less than 1.0 is considered acceptable with a v/c less than 0.93 preferred. An intersection is considered over capacity when signal timings or other intersection control cannot be adjusted to allow all turning movements to have a v/c less than 1.0.

The storage length represents the area at an approach where queued vehicles can be stored and not cause obstructions to adjacent turning movements or upstream intersections. The queue-storage ratio (QSR) is a measure of the expected queue length to the available storage length. A QSR equal to or less than 1.0 is considered acceptable, while a QSR greater than 1.0 indicates a strong possibility of vehicles obstructing an adjacent turning movement or upstream intersection.

The analysis was performed utilizing the computer program HCS 2024 which is developed by McTrans Corporation and based on the Highway Capacity Manual, 7th Edition. Based on criteria established by ODOT, Highway Capacity Software (HCS) is used to determine the required number of lanes and the lane assignments at intersections (i.e. the needed intersection capacity). The existing peak hour factors and heavy vehicle percentages were utilized during the AM and PM peak hours for the capacity analysis. Signal timing plans were provided by the city, but may not be what is currently operating since the most recent available plan is from 2006. With no other more recent data, that plan was used for the 'No-Build' analysis.

'No-Build' Peak Hour Capacity Analysis

Table 2 summarizes the results of the capacity analysis for the Lorain Road / Root Road intersection under the Opening Year 2025 and Design Year 2045 'No-Build' traffic conditions during the AM and PM peak hours. See **Appendix H** for the HCS Intersection Capacity Analysis printouts.

Table 2: HCS Intersection Capacity Analysis Summary
Opening Year 2025 and Design Year 2045 'No-Build' Conditions –
Lorain Road / Root Road Intersection

Movement	Opening Year 2025 'No-Build'					Design Year 2045 'No-Build'				
	LOS	Delay (sec)	V/C Ratio	QSR	95th % Queue (feet)	LOS	Delay (sec)	V/C Ratio	QSR	95th % Queue (feet)
AM Peak Hour										
Eastbound Left	B	16.7	0.34	1.22	55	B	19.6	0.47	1.68	76
Eastbound Thru-Right	C	23.4	0.64	0.12	205	C	25.9	0.71	0.16	266
Eastbound Approach	*C*	*21.6*	-	-	-	*C*	*24.2*	-	-	-
Westbound Left	B	15.7	0.34	0.23	64	B	18.0	0.45	0.32	89
Westbound Thru-Right	C	25.1	0.75	0.10	234	C	28.9	0.83	0.13	310
Westbound Approach	*C*	*22.5*	-	-	-	*C*	*25.9*	-	-	-
Northbound Left	B	17.3	0.21	0.81	37	B	19.2	0.27	1.11	50
Northbound Thru	C	25.8	0.66	0.29	203	C	31.5	0.73	0.40	276
Northbound Right	C	32.9	0.81	1.53	238	D	48.3	0.90	2.27	351
Northbound Approach	*C*	*28.1*	-	-	-	*D*	*37.8*	-	-	-
Southbound Left	B	17.4	0.35	0.35	69	C	20.0	0.47	0.48	97
Southbound Thru-Right	C	23.8	0.59	0.08	182	C	29.0	0.68	0.11	251
Southbound Approach	*C*	*21.6*	-	-	-	*C*	*26.0*	-	-	-
Intersection Total	***C***	***24.0***	**-**	**-**	**-**	***C***	***29.6***	**-**	**-**	**-**
PM Peak Hour										
Eastbound Left	C	21.7	0.37	1.16	52	C	29.2	0.56	1.72	78
Eastbound Thru-Right	C	22.9	0.49	0.14	242	C	25.8	0.53	0.20	333
Eastbound Approach	*C*	*22.7*	-	-	-	*C*	*26.5*	-	-	-
Westbound Left	B	15.4	0.54	0.57	156	B	18.3	0.65	0.80	219
Westbound Thru-Right	C	32.9	0.90	0.23	540	D	48.6	0.96	0.37	857
Westbound Approach	*C*	*27.7*	-	-	-	*D*	*39.5*	-	-	-
Northbound Left	C	29.1	0.42	1.57	71	D	40.1	0.59	2.59	116
Northbound Thru	D	40.1	0.71	0.38	269	F	84.5	0.96	0.69	486
Northbound Right	D	39.3	0.68	1.45	224	E	78.4	0.92	2.54	394
Northbound Approach	*D*	*38.1*	-	-	-	*E*	*75.6*	-	-	-
Southbound Left	C	27.8	0.52	0.67	134	D	38.4	0.76	1.04	208
Southbound Thru-Right	F	112.8	1.11	0.29	671	F	212.3	1.34	0.50	1,171
Southbound Approach	*F*	*90.1*	-	-	-	*F*	*166.0*	-	-	-
Intersection Total	***D***	***44.2***	**-**	**-**	**-**	***E***	***76.0***	**-**	**-**	**-**

Note: Yellow highlighted cells indicate a Level-of-Service D
Orange highlighted cells indicate a Level-of-Service E, v/c ratio > 0.93
Red highlighted cells indicate a Level-of-Service F, v/c ≥ 1.0, QSR ≥ 1.0

As shown in **Table 2**, the Lorain Road / Root Road intersection is anticipated to experience failing Levels-of-Service under the Opening Year 2025 'No-Build' conditions in the PM peak hour at the southbound approach, with the southbound thru-right movement over capacity. The eastbound left, northbound left, and northbound

right-turn lanes are anticipated to provide inadequate storage length under the Opening Year 2025 'No-Build' conditions.

Under the Design Year 2045 'No-Build' conditions, failing Levels-of-Service are expected in the PM peak hour at the southbound approach and the overall intersection. The southbound thru-right and northbound thru movements are expected to be over capacity with the westbound thru-right movement nearing capacity. The eastbound left, northbound left, northbound right, and southbound left-turn lanes are anticipated to provide inadequate storage length under the Design Year 2045 'No-Build' conditions. In addition, the queues on the thru lanes may block access to the turn lanes.

'No-Build Optimized' vs. 'Build Peak Hour Capacity Analysis

The signal timings provided by the City of North Ridgeville are from the 2006 Lorain Road / Root Road intersection improvement plans. These signal timings provide greater green time to Lorain Road than Root Road and do not account for the similar traffic volumes occurring on both roads. The signal timings at the Lorain Road / Root Road intersection were optimized to create the 'No-Build Optimized' traffic conditions. The 'No-Build Optimized' conditions utilize the same traffic volumes, peak hour factors, and heavy vehicle percentages as the 'No-Build' condition. As previously stated, the signal may not be currently operating with the timing provided, and based on capacity analysis results additional analysis was performed to see if conditions could be improved while maintaining the existing geometry. The green times for all phases were adjusted and northbound right-turn overlap was included. Note that this would require replacing the existing signal head with a five-section head in addition to programming in the controller. These improvements are needed in the 'No-Build' condition and are outside of any impacts due to the proposed Circle K.

The 'Build' condition utilizes the same signal timings as the 'No-Build Optimized' condition to allow for a direct comparison of the impacts of constructing the proposed Circle K. **Tables 3 and 4** summarize the results of the capacity analysis for the Lorain Road / Root Road intersection under the Opening Year 2025 and Design Year 2045 'No-Build Optimized' vs. 'Build' traffic conditions during the AM and PM peak hours. See **Appendix H** for the HCS Intersection Capacity Analysis printouts.

Table 3: HCS Intersection Capacity Analysis Summary
Opening Year 2025 'No-Build Optimized' vs. 'Build' Conditions –
Lorain Road / Root Road Intersection

Movement	'No-Build Optimized' Condition					'Build' Condition				
	LOS	Delay (sec)	V/C Ratio	QSR	95th % Queue (feet)	LOS	Delay (sec)	V/C Ratio	QSR	95th % Queue (feet)
AM Peak Hour										
Eastbound Left	B	15.9	0.34	1.14	51	B	16.1	0.35	1.16	52
Eastbound Thru-Right	C	21.6	0.61	0.11	193	C	21.9	0.63	0.12	198
Eastbound Approach	*C*	*20.1*	-	-	-	*C*	*20.4*	-	-	-
Westbound Left	B	15.0	0.33	0.22	60	B	15.5	0.40	0.27	74
Westbound Thru-Right	C	23.0	0.72	0.09	219	C	23.1	0.72	0.10	223
Westbound Approach	*C*	*20.7*	-	-	-	*C*	*20.7*	-	-	-
Northbound Left	B	17.3	0.22	0.80	36	B	17.3	0.21	0.37	36
Northbound Thru	C	24.8	0.67	0.28	195	C	25.2	0.69	0.29	201
Northbound Right	B	19.4	0.59	1.13	176	B	19.4	0.59	1.14	177
Northbound Approach	*C*	*21.5*	-	-	-	*C*	*21.8*	-	-	-
Southbound Left	B	17.4	0.37	0.34	68	B	18.0	0.44	0.41	82
Southbound Thru-Right	C	23.1	0.60	0.07	174	C	22.7	0.56	0.07	161
Southbound Approach	*C*	*21.2*	-	-	-	*C*	*20.9*	-	-	-
Intersection Total	***C***	***20.9***	**-**	**-**	**-**	***C***	***21.0***	**-**	**-**	**-**
PM Peak Hour										
Eastbound Left	C	26.7	0.45	1.45	65	C	26.1	0.44	1.42	64
Eastbound Thru-Right	C	27.3	0.52	0.16	278	C	27.1	0.53	0.16	278
Eastbound Approach	*C*	*27.2*	-	-	-	*C*	*26.9*	-	-	-
Westbound Left	B	19.6	0.58	0.71	195	C	20.4	0.63	0.77	212
Westbound Thru-Right	D	43.0	0.92	0.28	646	D	41.6	0.92	0.27	634
Westbound Approach	*D*	*36.0*	-	-	-	*C*	*34.8*	-	-	-
Northbound Left	C	30.3	0.44	1.68	76	C	30.5	0.43	0.77	77
Northbound Thru	C	34.9	0.57	0.38	264	D	36.4	0.62	0.39	272
Northbound Right	C	24.1	0.37	1.20	186	C	24.6	0.39	1.20	187
Northbound Approach	*C*	*30.2*	-	-	-	*C*	*31.1*	-	-	-
Southbound Left	C	26.4	0.46	0.69	138	C	27.4	0.54	0.81	163
Southbound Thru-Right	D	47.6	0.88	0.20	470	D	45.4	0.87	0.19	436
Southbound Approach	*D*	*41.9*	-	-	-	*D*	*39.9*	-	-	-
Intersection Total	***C***	***34.7***	**-**	**-**	**-**	***C***	***33.9***	**-**	**-**	**-**

Note: Yellow highlighted cells indicate a Level-of-Service D
Red highlighted cells indicate a QSR ≥ 1.0

Table 4: HCS Intersection Capacity Analysis Summary
Design Year 2045 'No-Build Optimized' vs. 'Build' Conditions –
Lorain Road / Root Road Intersection

Movement	'No-Build Optimized' Condition					'Build' Condition				
	LOS	Delay (sec)	V/C Ratio	QSR	95th % Queue (feet)	LOS	Delay (sec)	V/C Ratio	QSR	95th % Queue (feet)
AM Peak Hour										
Eastbound Left	B	19.6	0.50	1.66	75	C	20.6	0.51	1.76	79
Eastbound Thru-Right	C	25.2	0.71	0.15	257	C	27.1	0.75	0.16	272
Eastbound Approach	*C*	*23.7*	-	-	-	*C*	*25.4*	-	-	-
Westbound Left	B	18.0	0.47	0.32	88	B	19.2	0.54	0.39	107
Westbound Thru-Right	C	28.1	0.83	0.13	300	C	28.8	0.84	0.13	309
Westbound Approach	*C*	*25.3*	-	-	-	*C*	*25.8*	-	-	-
Northbound Left	B	18.5	0.27	1.06	48	B	18.8	0.26	0.50	50
Northbound Thru	C	26.7	0.71	0.36	250	C	28.3	0.74	0.38	264
Northbound Right	C	21.4	0.66	1.51	233	C	21.4	0.65	1.52	236
Northbound Approach	*C*	*23.4*	-	-	-	*C*	*24.1*	-	-	-
Southbound Left	B	19.2	0.47	0.46	92	B	19.9	0.53	0.55	109
Southbound Thru-Right	C	25.1	0.65	0.10	229	C	24.6	0.61	0.09	219
Southbound Approach	*C*	*23.1*	-	-	-	*C*	*22.9*	-	-	-
Intersection Total	***C***	***23.9***	**-**	**-**	**-**	***C***	***24.6***	**-**	**-**	**-**
PM Peak Hour										
Eastbound Left	C	34.9	0.69	2.12	96	C	34.8	0.69	2.11	95
Eastbound Thru-Right	C	31.4	0.59	0.22	373	C	31.4	0.60	0.22	378
Eastbound Approach	*C*	*32.1*	-	-	-	*C*	*32.1*	-	-	-
Westbound Left	C	33.9	0.79	1.06	290	D	43.0	0.86	0.97	266
Westbound Thru-Right	F	90.3	1.08	0.49	1,149	F	91.3	1.08	0.50	1,158
Westbound Approach	*E*	*73.5*	-	-	-	*E*	*76.0*	-	-	-
Northbound Left	D	38.5	0.66	2.44	110	D	38.1	0.65	1.10	110
Northbound Thru	D	40.2	0.63	0.50	353	D	40.7	0.65	0.51	360
Northbound Right	C	28.0	0.44	1.61	250	C	28.1	0.44	1.61	250
Northbound Approach	*D*	*35.3*	-	-	-	*D*	*35.5*	-	-	-
Southbound Left	C	31.8	0.59	0.98	196	D	37.4	0.69	1.14	228
Southbound Thru-Right	E	76.5	0.99	0.32	737	E	38.5	0.96	0.29	675
Southbound Approach	*E*	*64.6*	-	-	-	*E*	*59.2*	-	-	-
Intersection Total	***E***	***56.0***	**-**	**-**	**-**	***E***	***55.8***	**-**	**-**	**-**

Note: Yellow highlighted cells indicate a Level-of-Service D
Orange highlighted cells indicate a Level-of-Service E, v/c ratio > 0.93
Red highlighted cells indicate a Level-of-Service F, v/c ≥ 1.0, QSR ≥ 1.0

As shown in **Table 3**, all movements and approaches at the Lorain Road / Root Road intersection are anticipated to operate with acceptable Levels-of-Service under the Opening Year 2025 'No-Build Optimized' and 'Build' conditions during both the AM and PM peak hours. The eastbound left and northbound right-turn lanes are expected to be undersized under the 'No-Build' and 'Build' conditions. The northbound left-turn

lane is expected to be undersized under the 'No-Build' conditions during the PM peak hour. Lorain Road is anticipated to have a westbound 95th percentile queue length of 646' under the 'No-Build Optimized' conditions and a queue length of 634' under the 'Build' conditions during the PM peak hour. Root Road is anticipated to have a southbound 95th percentile queue length of 470' under the Opening Year 2025 'No-Build Optimized' conditions and a queue length of 436' under the 'Build' conditions during the PM peak hour.

As shown in **Table 4**, most movements and approaches at the Lorain Road / Root Road intersection are anticipated to operate with acceptable Levels-of-Service under the Design Year 2045 'No-Build Optimized' and 'Build' conditions during both the AM and PM peak hours. Although optimized signal timings were implemented, the westbound approach and overall intersection are anticipated to have unacceptable Levels-of-Services under the Design Year 2045 'No-Build Optimized' and 'Build' conditions during the PM peak hour. In addition, the westbound thru-right movement is over capacity and the southbound thru-right movement is nearing capacity under the Design Year 2045 'No-Build Optimized' and 'Build' conditions during the PM peak hour. Even though failing Levels-of-Service and v/c ratios are shown at Lorain Road / Root Road intersection, this is a 'No-Build Optimized' condition, and the proposed Circle K traffic is not shown to cause any degradation to the Levels-of-Service or capacity, with minimal increases in delay.

In addition to the failing Levels-of-Service and capacity issues, there are several turn lanes anticipated to have inadequate storage under the Design Year 2045 'No-Build Optimized' and 'Build' conditions including the eastbound left, northbound left, and northbound right-turn lanes during the AM and PM peak hours. It is also likely that vehicles in the adjacent thru travel lane may block access to the turn lanes during the peak hours. Even though these turn lanes are undersized, this a 'No-Build Optimized' condition and the proposed Circle K is not shown to cause the existing turn lanes to be over capacity, with minimal to no additional traffic on those movements.

Lorain Road is anticipated to have a westbound 95th percentile queue length of 1,149' under the Design Year 2045 'No-Build Optimized' conditions and a queue length of 1,158' under the 'Build' conditions during the PM peak hour. Root Road is anticipated to have a southbound 95th percentile queue length of 737' under the Design Year 2045 'No-Build Optimized' conditions and a queue length of 675' under the 'Build' conditions during the PM peak hour. Although long queue lengths are anticipated at these approaches, the proposed Circle K is not anticipated to have any impact on the queue lengths at the Lorain Road / Root Road intersection. The 95th percentile queue lengths are expected to increase from the Opening Year 2025 conditions to the Design Year 2045 conditions due to background traffic growth. The existing failing Levels-of-Service, v/c ratio, QSR, and long queue lengths at the Lorain Road / Root Road intersection suggest further roadway improvements are needed outside the scope of the proposed Circle K.

Table 5 on the following page summarizes the results of the capacity analysis for the site driveways within the study area under the Opening Year 2025 and Design Year 2045 'Build' traffic conditions during the AM and PM peak hours. See **Appendix H** for the HCS Intersection Capacity Analysis printouts.

Table 5: HCS Intersection Capacity Analysis Summary
Opening Year 2025 and Design Year 2045 'Build' Conditions – Site Driveways

Movement	Opening Year 2025 'Build'				Design Year 2045 'Build'			
	LOS	Delay (sec)	V/C Ratio	95th % Queue (feet)	LOS	Delay (sec)	V/C Ratio	95th % Queue (feet)
AM Peak Hour								
Lorain Road / Circle K Driveway #1								
Westbound Left	A	9.4	0.04	3	B	10.0	0.04	3
Westbound Approach	*A*	*0.6*	-	-	*A*	*0.5*	-	-
Northbound Left-Right	D	30.9	0.37	41	E	49.3	0.51	64
Northbound Approach	*D*	*30.9*	-	-	*E*	*49.3*	-	-
Root Road / Circle K Driveway #2								
Westbound Right	B	13.9	0.09	8	C	15.9	0.11	10
Westbound Approach	*B*	*13.9*	-	-	*C*	*15.9*	-	-
PM Peak Hour								
Lorain Road / Circle K Driveway #1								
Westbound Left	A	9.2	0.04	3	A	9.7	0.05	5
Westbound Approach	*A*	*0.4*	-	-	A	0.3	-	-
Northbound Left-Right	F	89.4	0.73	102	F	242.8	1.14	166
Northbound Approach	*F*	*89.4*	-	-	F	242.8	-	-
Root Road / Circle K Driveway #2								
Westbound Right	B	12.6	0.06	5	B	14.0	0.07	5
Westbound Approach	*B*	*12.6*	-	-	*B*	*14.0*	-	-

Note: Yellow highlighted cells indicate a Level-of-Service D
Orange highlighted cells indicate a Level-of-Service E
Red highlighted cells indicate a Level-of-Service F, v/c ≥ 1.0

As shown in **Table 5**, Circle K Driveway #2 is anticipated to operate at acceptable LOS under the Opening Year 2025 and Design Year 2045 'Build' traffic conditions during both the AM and PM peak hours. Circle K Driveway #1 is anticipated to operate with a failing LOS F and be over capacity at the northbound approach during the PM peak hour. Although this approach does show LOS F, all queueing will occur on the Circle K site, not the public roadway system and should not impact operations along Lorain Road.

Turn Lane Length Calculations

Turn lane length calculations were performed to determine the calculated length for each proposed turn lane based on the Design Year 2045 'Build' peak hour traffic volumes. The required storage length is a function of site conditions, lane assignments, design speed, and the vehicular demand of the individual movement and is based on Figures 401-9 and 401-10 of the ODOT Location and Design Manual, Volume 1. **Table 6** shows the calculated turn lane lengths under the Design Year 2045 'Build' conditions. See **Appendix I** for turn lane length calculation printouts.

Table 6: Turn Lane Length Calculation Summary – Design Year 2045 'Build' Conditions

Intersection / Movement	Turn Lane Length (ft.)	
	Calculated Length	Recommended Length
Lorain Road / Circle K Driveway #1		
Westbound Left-Turn Lane	100'	100'
Lorain Road / Root Road		
Northbound Left-Turn Lane	225'	150'

*Turn lane length shown includes 50' diverging taper.

As shown in **Table 6**, a 100' westbound left-turn lane is recommended to be constructed at the Lorain Road / Circle K Driveway #1 intersection. This left-turn lane into Circle K Driveway #1 currently exists as the end of the existing westbound left-turn lane at the Lorain Road / Root Road intersection. The existing northbound left-turn lane at the Lorain Road / Root Road intersection is recommended to be lengthened to 150'. Circle K recognizes that the turn lane will not be constructed to its calculated length, but it partially addresses the inadequate storage issue. In addition, the capacity analysis determined the northbound left-turn lane is expected to have adequate storage under all analyzed conditions expect the Design Year 2045 'Build' conditions during the PM peak hour.

VII. Summary and Recommendations:

This Traffic Impact Study (TIS) is being prepared at the request of Circle K Stores Inc. and Colliers Engineering and Design in association with the proposed construction of a Circle K convenience store and gas station to be located at the southeast corner of the Lorain Road / Root Road intersection in the City of North Ridgeville, Lorain County, Ohio. The purpose of this TIS is to determine if there are any traffic impacts expected due to the proposed development.

In Summary,

1. The proposed development consists of the construction of a 3,962 SF convenience store and gasoline station with 12 fueling positions.

2. Access to the proposed Circle K gas station and convenience store will be provided by one proposed full movement driveway along Lorain Road (Driveway #1), and one proposed right-in, right-out driveway along Root Road (Driveway #2).

3. The proposed Circle K convenience store and gas station is expected to generate 224 trip ends during the weekday AM peak hour and 216 trip ends during the weekday PM peak hour, with 76% of the AM and 75% of the PM traffic coming from pass-by traffic.

4. A total of 16 crashes were reported at the Lorain Road / Root Road intersection from 2021-2023. The intersection is not a high priority intersection for safety improvements.

5. The turn lane warrant analysis determined that a westbound left-turn lane is warranted at the Lorain Road / Circle K Driveway #1 intersection, but the existing Lorain Road / Root Road left-turn lane extends across the Circle K property. An eastbound right-turn lane is warranted at the Lorain Road / Circle K Driveway #1 intersection, but is not recommended to be constructed.

6. The Lorain Road / Root Road intersection is anticipated to experience failing Levels-of-Service, v/c, and QSR under the Opening Year 2025 and Design Year 2045 'No-Build' conditions.

7. The signal timings provided by the City of North Ridgeville were optimized to create the 'No-Build Optimized' conditions.

8. The Opening Year 2025 capacity analysis determined all movements and approaches at the Lorain Road / Root Road intersection are anticipated to operate with acceptable Levels-of-Service under the 'No-Build Optimized' and 'Build' conditions during both the AM and PM peak hours.

9. The Design Year 2045 capacity analysis determined the westbound approach and overall intersection are anticipated to have unacceptable Levels of Services in the 'No-Build Optimized' and 'Build' conditions during the PM peak hour. In addition, the westbound thru-right movement is over capacity and the southbound thru-right movement is nearing capacity under the 'No-Build Optimized' and 'Build' conditions during the PM peak hour.

10. Some existing turn lanes at the Lorain Road / Root Road intersection are anticipated to have inadequate storage under the Opening Year 2025 and Design Year 2045 'No-Build Optimized' and 'Build' conditions.

11. Circle K Driveway #2 is anticipated to operate at acceptable LOS under the Opening Year 2025 and Design Year 2045 'Build' traffic conditions during both the AM and PM peak hours. Circle K Driveway #1 is anticipated to operating with a failing LOS F at the northbound approach during the PM peak hour, but all queueing will occur on the Circle K site.

12. The turn lane length calculations determined the existing northbound left-turn lane at the Lorain Road / Root Road intersection has a calculated length of 225'. This turn lane is recommended to be lengthened to 150'.

13. It is acknowledged that there are existing capacity and queuing issues at the signalized intersection and while timing modifications as evaluated in the 'No-Build Optimized' and 'Build' scenarios will not resolve all of the issues, they should decrease delays for several movements. The proposed development does not result in degradation on the roadways.

If the Circle K development is constructed, GPD Group recommends the following based on the information and analyses in this study:

1. The proposed development should be constructed according to the preliminary site plan.

2. The existing northbound left-turn lane at the Lorain Road / Root Road intersection should be lengthened to a total length of 150'.

3. Signal timing modifications should be implemented to improve operations.

FIGURES

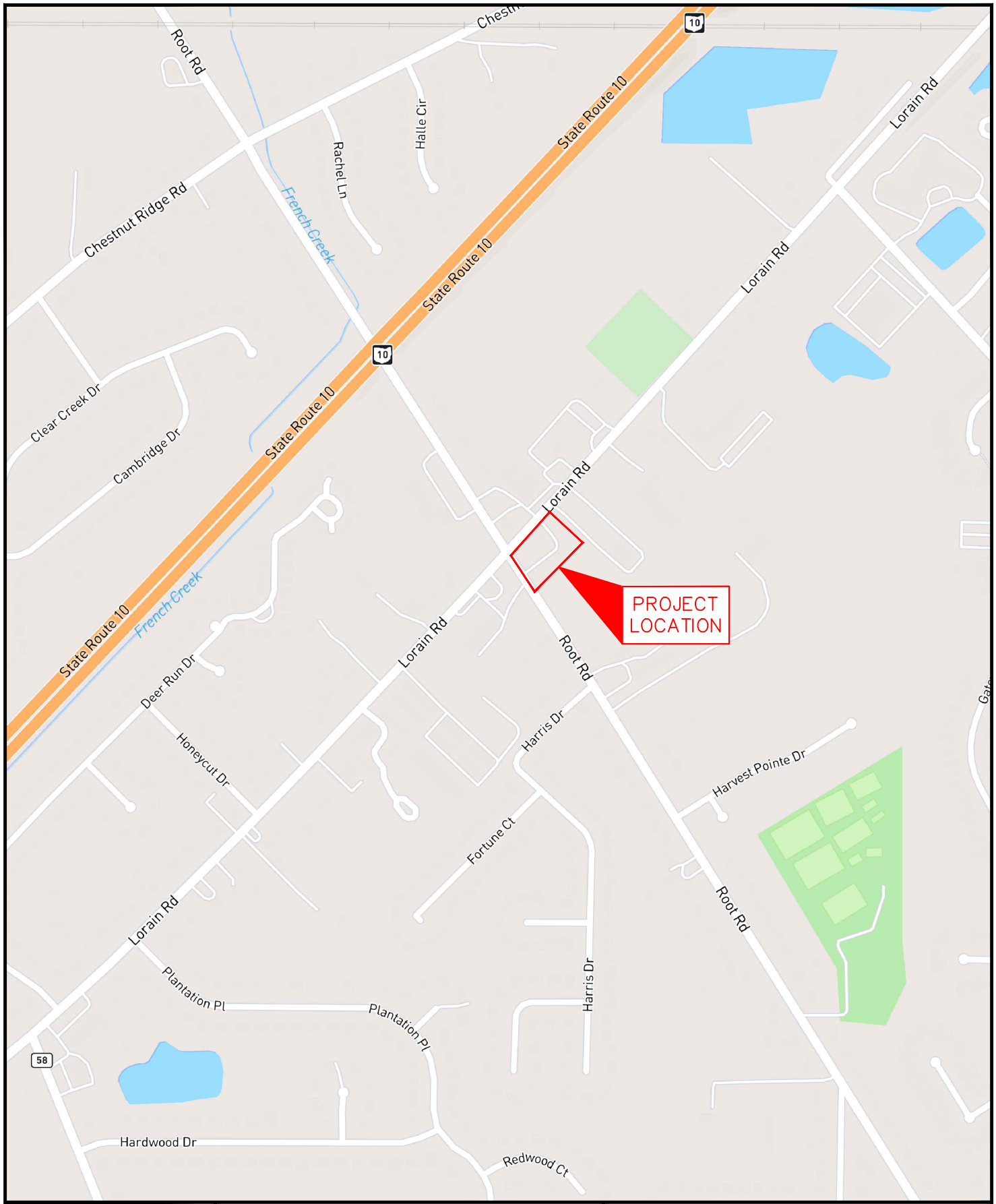

FIGURE 1

PROJECT LOCATION MAP

AUGUST 2024

N

N.T.S.

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DATE: 8/1/2024 TIME: 2:29:57 PM
TECHNICIAN: MLESSNER

N

N.T.S.

FIGURE 2

AERIAL PHOTOGRAPH

AUGUST 2024

CAD FILE: O:\2024\2024050\27 - CIRCLE K NORTH RIDGEVILLE\FIGURES\FIGURE 2_AERIAL PHOTOGRAPH.DWG
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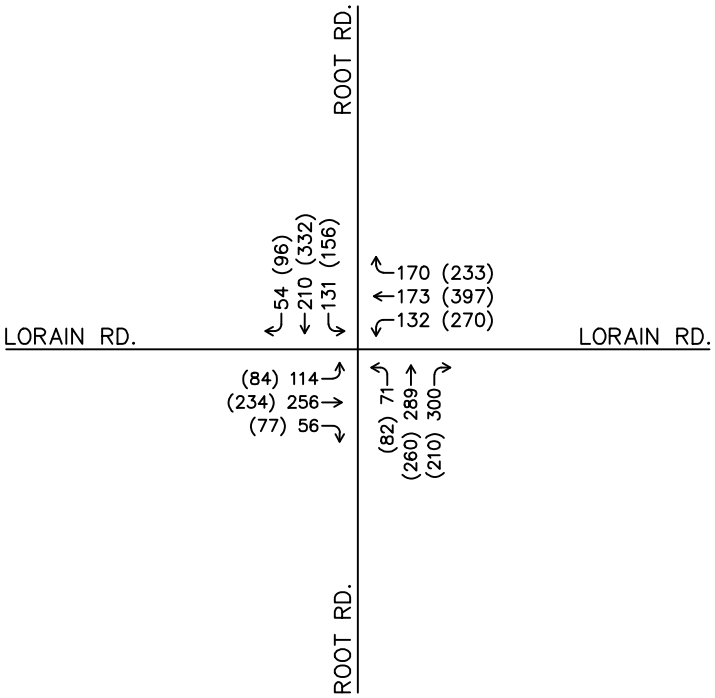

LEGEND
– AM PEAK HOUR
(##) – PM PEAK HOUR

N.T.S.

FIGURE 3

OPENING YEAR 2025
'NO–BUILD'
PEAK HOUR TRAFFIC VOLUMES

REVISED JANUARY 2025

CAD FILE: G:\2024\2024050\27 - CIRCLE K NORTH RIDGEVILLE\FIGURES\FIGURE 3_OY 2025 'NO–BUILD' PEAK HOUR TRAFFIC VOLUMES.DWG
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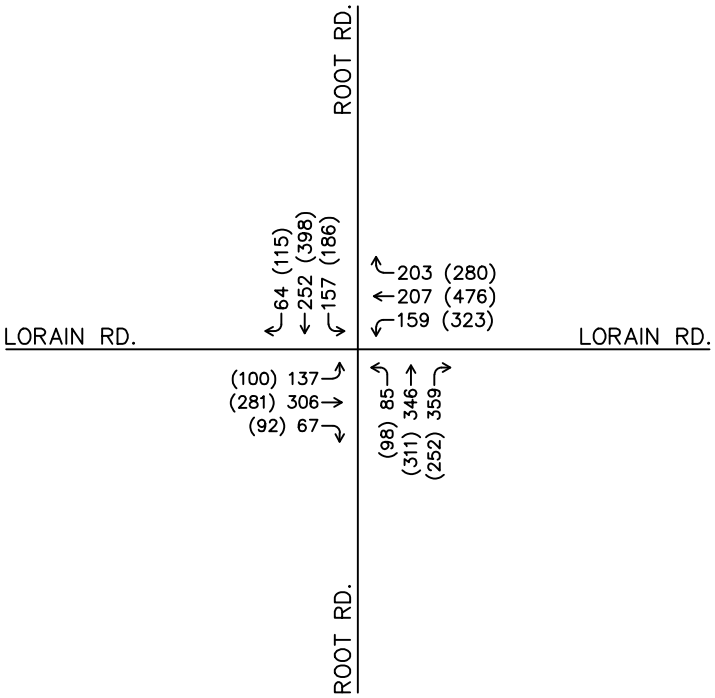

LEGEND
– AM PEAK HOUR
(##) – PM PEAK HOUR

N.T.S.

FIGURE 4

DESIGN YEAR 2045
'NO–BUILD'
PEAK HOUR TRAFFIC VOLUMES

AUGUST 2024

CAD FILE: G:\2024\2024050\27 - CIRCLE K NORTH RIDGEVILLE\FIGURES\FIGURE 4_DY 2045 'NO–BUILD' PEAK HOUR TRAFFIC VOLUMES.DWG
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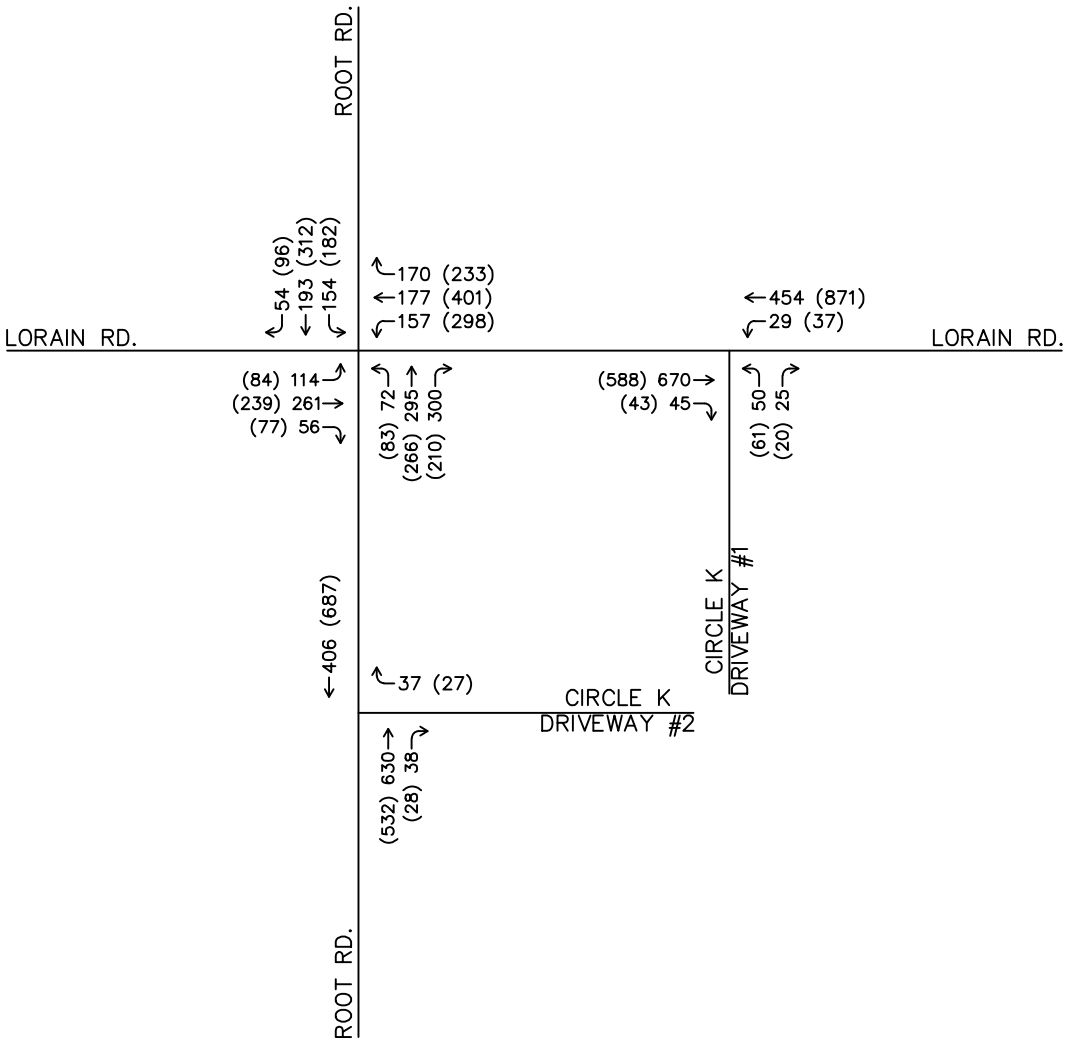
TECHNICIAN: MLESSITER



LEGEND
– AM PEAK HOUR
(##) – PM PEAK HOUR

N.T.S.

FIGURE 5

OPENING YEAR 2025
'BUILD'
PEAK HOUR TRAFFIC VOLUMES

REVISED JANUARY 2025

CAD FILE: G:\2024\2024050\27 - CIRCLE K NORTH RIDGEVILLE\FIGURES\FIGURE 5_OY 2025 'BUILD' PEAK HOUR TRAFFIC VOLUMES.DWG
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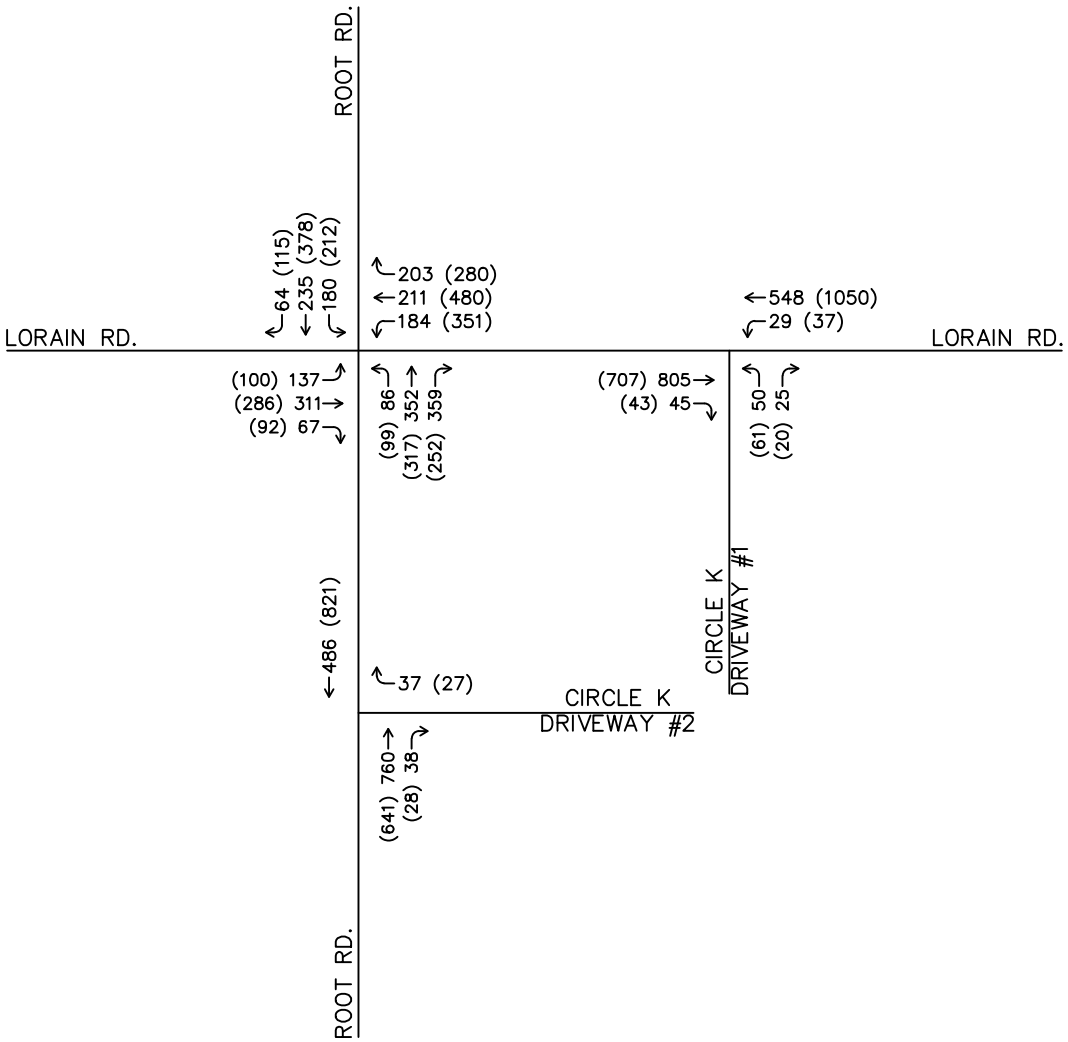

LEGEND
– AM PEAK HOUR
(##) – PM PEAK HOUR

N.T.S.

FIGURE 6

DESIGN YEAR 2045
'BUILD'
PEAK HOUR TRAFFIC VOLUMES

REVISED JANUARY 2025

CAD FILE: O:\2024\2024050\27 - CIRCLE K NORTH RIDGEVILLE\FIGURES\FIGURE 6_DY 2045 'BUILD' PEAK HOUR TRAFFIC VOLUMES.DWG
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TECHNICIAN: MLESSNER

APPENDIX A
TURNING MOVEMENT COUNTS

TRI-STATE TRAFFIC DATA
www.TSTData.com
Tri-State Traffic Data, Inc
Coatesville, PA, Pennsylvania, United States 19320
610-466-1469
Serving Transportiation Professionals Since 1995

North Ridgeville, OH
Lorain Rd & Root Rd
Wednesday, May 8, 2024
Location: 41.368309, -81.997467

Count Name: Lorain Rd & Root Rd
Site Code:
Start Date: 05/08/2024
Page No: 1

Turning Movement Data

Start Time	Lorain Rd Eastbound							Lorain Rd Westbound							Root Rd Northbound							Root Rd Southbound							Int. Total
	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	
6:00 AM	1	41	0	0	0	0	42	13	13	7	2	0	0	35	0	21	11	27	0	0	59	21	17	2	1	0	0	41	177
6:15 AM	3	32	0	0	0	0	35	23	17	7	4	0	0	51	3	24	15	26	0	0	68	16	30	7	3	0	0	56	210
6:30 AM	9	49	5	1	0	0	64	26	29	13	3	0	0	71	10	33	14	27	0	0	84	20	31	3	0	0	0	54	273
6:45 AM	14	59	6	1	0	0	80	19	28	20	4	0	0	71	16	45	25	25	0	0	111	27	22	5	2	0	0	56	318
Hourly Total	27	181	11	2	0	0	221	81	87	47	13	0	0	228	29	123	65	105	0	0	322	84	100	17	6	0	0	207	978
7:00 AM	10	57	9	2	0	0	78	23	26	23	3	0	0	75	12	39	19	23	0	0	93	16	33	2	0	0	0	51	297
7:15 AM	30	69	8	1	0	0	108	33	36	29	5	0	0	103	23	70	44	31	0	0	168	23	49	7	0	0	0	79	458
7:30 AM	18	58	11	3	0	0	90	26	35	38	4	0	0	103	15	63	62	26	0	0	166	39	58	8	4	0	0	109	468
7:45 AM	26	46	10	4	0	0	86	38	46	40	5	0	0	129	17	57	29	21	0	0	124	31	46	8	2	0	0	87	426
Hourly Total	84	230	38	10	0	0	362	120	143	130	17	0	0	410	67	229	154	101	0	0	551	109	186	25	6	0	0	326	1649
8:00 AM	29	57	13	0	0	0	99	22	38	21	11	0	0	92	9	70	23	34	0	0	136	25	36	18	1	0	0	80	407
8:15 AM	12	56	8	2	0	0	78	27	41	16	4	0	0	88	11	53	24	30	0	0	118	22	36	7	4	0	0	69	353
8:30 AM	13	57	12	1	0	0	83	20	49	19	2	0	0	90	11	28	17	27	0	0	83	14	34	6	2	0	0	56	312
8:45 AM	8	49	8	2	0	0	67	37	39	21	3	0	0	100	8	44	13	15	0	0	80	18	34	8	3	0	0	63	310
Hourly Total	62	219	41	5	0	0	327	106	167	77	20	0	0	370	39	195	77	106	0	0	417	79	140	39	10	0	0	268	1382
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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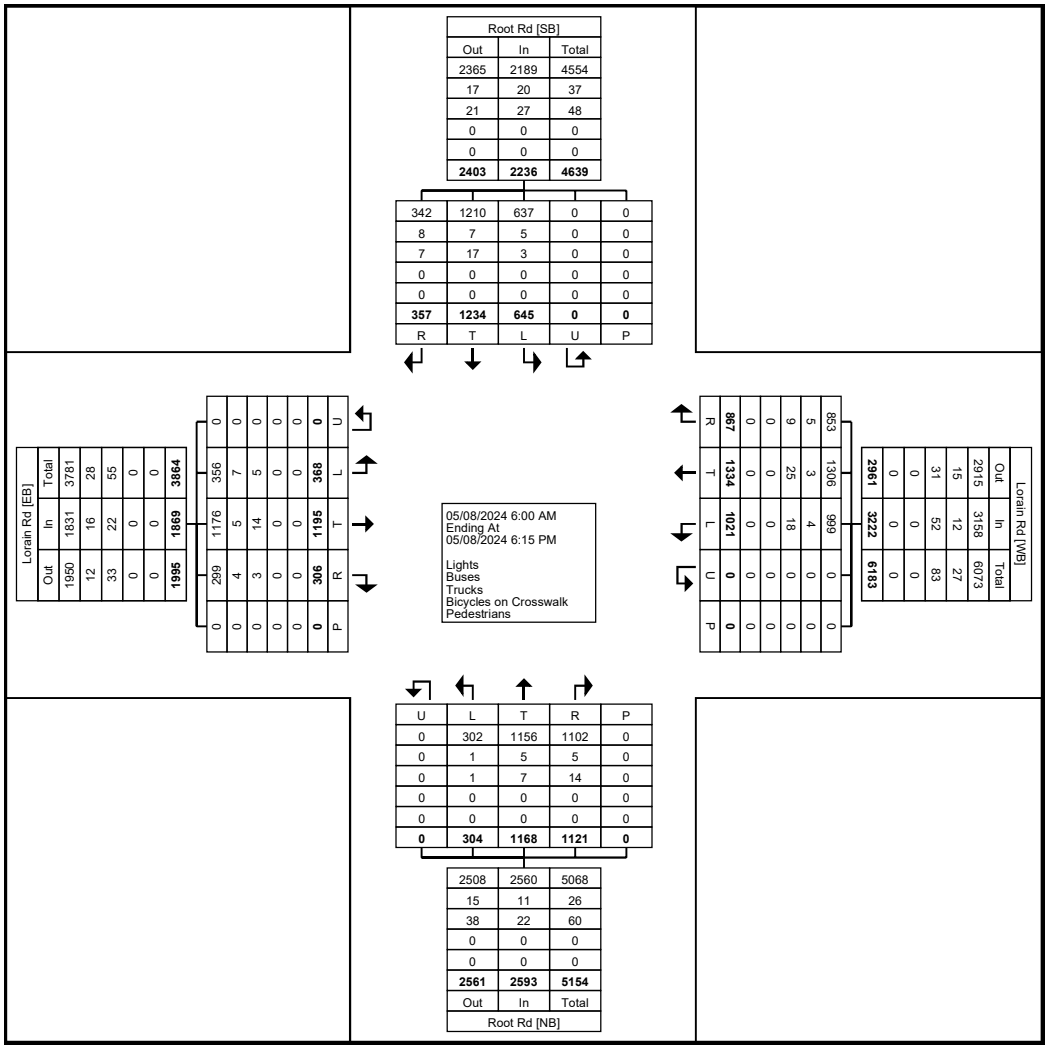
3:15 PM	19	36	11	3	0	0	69	64	67	37	6	0	0	174	6	61	18	26	0	0	111	23	80	25	3	0	0	131	485
3:30 PM	12	40	22	1	0	0	75	60	75	51	4	0	0	190	17	49	18	22	0	0	106	25	72	20	1	0	0	118	489
3:45 PM	14	54	15	3	0	0	86	56	81	34	6	0	0	177	14	56	18	29	0	0	117	33	57	17	1	0	0	108	488
Hourly Total	61	178	60	9	0	0	308	224	272	146	19	0	0	661	44	196	66	99	0	0	405	113	265	84	5	0	0	467	1841
4:00 PM	13	39	14	0	0	0	66	74	72	42	3	0	0	191	12	41	27	11	0	0	91	28	52	19	1	0	0	100	448
4:15 PM	9	49	13	4	0	0	75	62	88	52	1	0	0	203	16	46	14	30	0	0	106	30	63	13	3	0	0	109	493
4:30 PM	20	48	14	3	0	0	85	63	84	41	1	0	0	189	22	44	15	22	0	0	103	40	69	18	1	0	0	128	505
4:45 PM	22	52	11	1	0	0	86	57	90	50	1	0	0	198	22	54	26	19	0	0	121	30	56	24	1	0	0	111	516
Hourly Total	64	188	52	8	0	0	312	256	334	185	6	0	0	781	72	185	82	82	0	0	421	128	240	74	6	0	0	448	1962
5:00 PM	24	56	22	2	0	0	104	60	91	42	11	0	0	204	21	69	30	28	0	0	148	35	84	18	2	0	0	139	595
5:15 PM	9	55	13	3	0	0	80	63	92	60	4	0	0	219	9	67	19	30	0	0	125	35	90	22	0	0	0	147	571
5:30 PM	20	44	14	3	0	0	81	68	69	30	11	0	0	178	13	58	18	32	0	0	121	31	59	18	3	0	0	111	491
5:45 PM	17	44	11	2	0	0	74	43	79	47	2	0	0	171	10	46	7	20	0	0	83	31	70	19	3	0	0	123	451
Hourly Total	70	199	60	10	0	0	339	234	331	179	28	0	0	772	53	240	74	110	0	0	477	132	303	77	8	0	0	520	2108
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	368	1195	262	44	0	0	1869	1021	1334	764	103	0	0	3222	304	1168	518	603	0	0	2593	645	1234	316	41	0	0	2236	9920
Approach %	19.7	63.9	14.0	2.4	0.0	-	-	31.7	41.4	23.7	3.2	0.0	-	-	11.7	45.0	20.0	23.3	0.0	-	-	28.8	55.2	14.1	1.8	0.0	-	-	-
Total %	3.7	12.0	2.6	0.4	0.0	-	18.8	10.3	13.4	7.7	1.0	0.0	-	32.5	3.1	11.8	5.2	6.1	0.0	-	26.1	6.5	12.4	3.2	0.4	0.0	-	22.5	-
Lights	356	1176	258	41	0	-	1831	999	1306	752	101	0	-	3158	302	1156	506	596	0	-	2560	637	1210	301	41	0	-	2189	9738
% Lights	96.7	98.4	98.5	93.2	-	-	98.0	97.8	97.9	98.4	98.1	-	-	98.0	99.3	99.0	97.7	98.8	-	-	98.7	98.8	98.1	95.3	100.0	-	-	97.9	98.2
Buses	7	5	2	2	0	-	16	4	3	5	0	0	-	12	1	5	4	1	0	-	11	5	7	8	0	0	-	20	59
% Buses	1.9	0.4	0.8	4.5	-	-	0.9	0.4	0.2	0.7	0.0	-	-	0.4	0.3	0.4	0.8	0.2	-	-	0.4	0.8	0.6	2.5	0.0	-	-	0.9	0.6
Trucks	5	14	2	1	0	-	22	18	25	7	2	0	-	52	1	7	8	6	0	-	22	3	17	7	0	0	-	27	123
% Trucks	1.4	1.2	0.8	2.3	-	-	1.2	1.8	1.9	0.9	1.9	-	-	1.6	0.3	0.6	1.5	1.0	-	-	0.8	0.5	1.4	2.2	0.0	-	-	1.2	1.2
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

North Ridgeville, OH
Lorain Rd & Root Rd
Wednesday, May 8, 2024
Location: 41.368309, -81.997467

Count Name: Lorain Rd & Root Rd
Site Code:
Start Date: 05/08/2024
Page No: 2



Turning Movement Data Plot

Turning Movement Peak Hour Data (7:15 AM)

Start Time	Lorain Rd Eastbound							Lorain Rd Westbound							Root Rd Northbound							Root Rd Southbound							Int. Total
	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	
7:15 AM	30	69	8	1	0	0	108	33	36	29	5	0	0	103	23	70	44	31	0	0	168	23	49	7	0	0	0	79	458
7:30 AM	18	58	11	3	0	0	90	26	35	38	4	0	0	103	15	63	62	26	0	0	166	39	58	8	4	0	0	109	468
7:45 AM	26	46	10	4	0	0	86	38	46	40	5	0	0	129	17	57	29	21	0	0	124	31	46	8	2	0	0	87	426
8:00 AM	29	57	13	0	0	0	99	22	38	21	11	0	0	92	9	70	23	34	0	0	136	25	36	18	1	0	0	80	407
Total	103	230	42	8	0	0	383	119	155	128	25	0	0	427	64	260	158	112	0	0	594	118	189	41	7	0	0	355	1759
Approach %	26.9	60.1	11.0	2.1	0.0	-	-	27.9	36.3	30.0	5.9	0.0	-	-	10.8	43.8	26.6	18.9	0.0	-	-	33.2	53.2	11.5	2.0	0.0	-	-	-
Total %	5.9	13.1	2.4	0.5	0.0	-	21.8	6.8	8.8	7.3	1.4	0.0	-	24.3	3.6	14.8	9.0	6.4	0.0	-	33.8	6.7	10.7	2.3	0.4	0.0	-	20.2	-
PHF	0.858	0.833	0.808	0.500	0.000	-	0.887	0.783	0.842	0.800	0.568	0.000	-	0.828	0.696	0.929	0.637	0.824	0.000	-	0.884	0.756	0.815	0.569	0.438	0.000	-	0.814	0.940
Lights	102	227	42	7	0	-	378	116	149	126	25	0	-	416	64	256	155	109	0	-	584	115	183	35	7	0	-	340	1718
% Lights	99.0	98.7	100.0	87.5	-	-	98.7	97.5	96.1	98.4	100.0	-	-	97.4	100.0	98.5	98.1	97.3	-	-	98.3	97.5	96.8	85.4	100.0	-	-	95.8	97.7
Buses	1	1	0	1	0	-	3	0	0	0	0	0	-	0	0	0	1	0	0	-	1	1	2	2	0	0	-	5	9
% Buses	1.0	0.4	0.0	12.5	-	-	0.8	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.6	0.0	-	-	0.2	0.8	1.1	4.9	0.0	-	-	1.4	0.5
Trucks	0	2	0	0	0	-	2	3	6	2	0	0	-	11	0	4	2	3	0	-	9	2	4	4	0	0	-	10	32
% Trucks	0.0	0.9	0.0	0.0	-	-	0.5	2.5	3.9	1.6	0.0	-	-	2.6	0.0	1.5	1.3	2.7	-	-	1.5	1.7	2.1	9.8	0.0	-	-	2.8	1.8
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

North Ridgeville, OH
Lorain Rd & Root Rd
Wednesday, May 8, 2024
Location: 41.368309, -81.997467

Count Name: Lorain Rd & Root Rd
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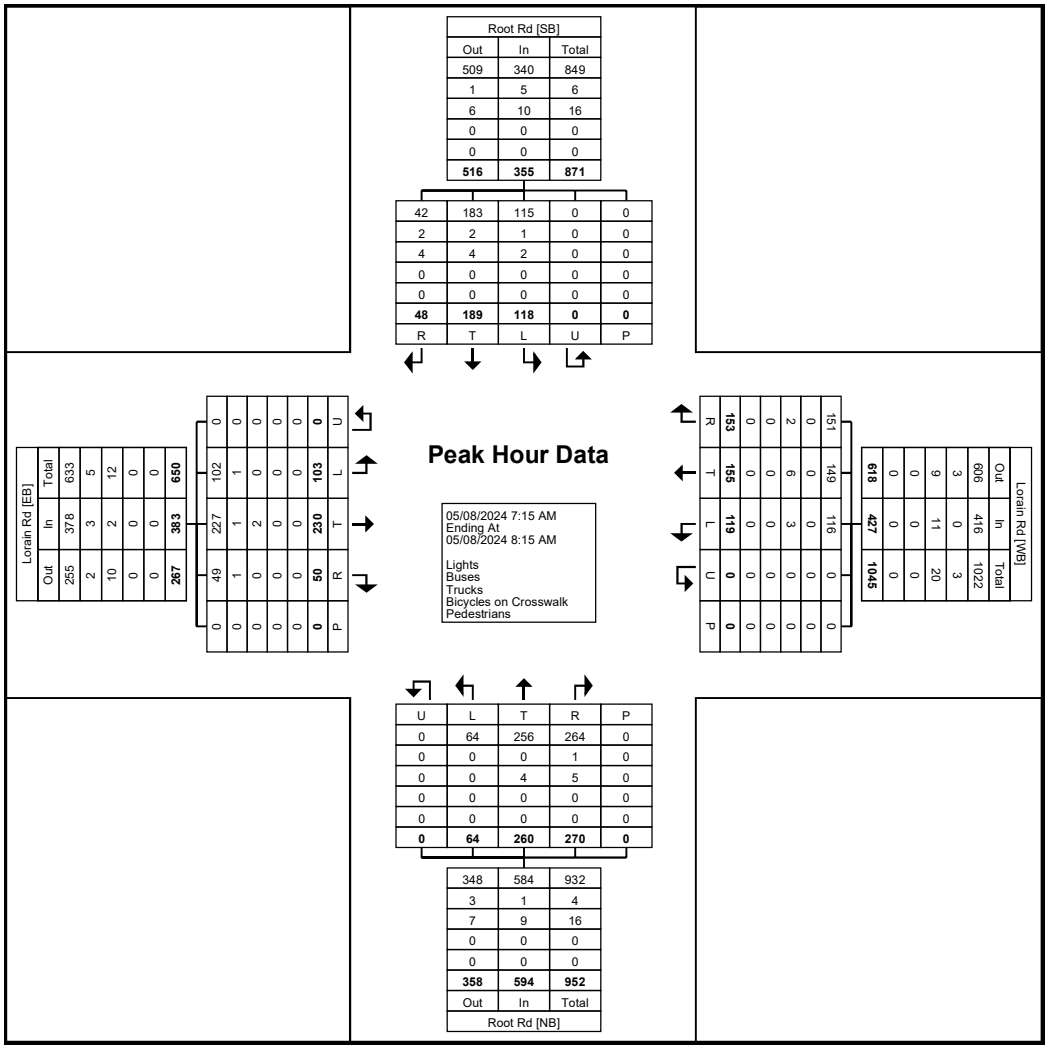

Turning Movement Peak Hour Data Plot (7:15 AM)

Turning Movement Peak Hour Data (4:30 PM)

Start Time	Lorain Rd Eastbound							Lorain Rd Westbound							Root Rd Northbound							Root Rd Southbound							Int. Total
	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	
4:30 PM	20	48	14	3	0	0	85	63	84	41	1	0	0	189	22	44	15	22	0	0	103	40	69	18	1	0	0	128	505
4:45 PM	22	52	11	1	0	0	86	57	90	50	1	0	0	198	22	54	26	19	0	0	121	30	56	24	1	0	0	111	516
5:00 PM	24	56	22	2	0	0	104	60	91	42	11	0	0	204	21	69	30	28	0	0	148	35	84	18	2	0	0	139	595
5:15 PM	9	55	13	3	0	0	80	63	92	60	4	0	0	219	9	67	19	30	0	0	125	35	90	22	0	0	0	147	571
Total	75	211	60	9	0	0	355	243	357	193	17	0	0	810	74	234	90	99	0	0	497	140	299	82	4	0	0	525	2187
Approach %	21.1	59.4	16.9	2.5	0.0	-	-	30.0	44.1	23.8	2.1	0.0	-	-	14.9	47.1	18.1	19.9	0.0	-	-	26.7	57.0	15.6	0.8	0.0	-	-	-
Total %	3.4	9.6	2.7	0.4	0.0	-	16.2	11.1	16.3	8.8	0.8	0.0	-	37.0	3.4	10.7	4.1	4.5	0.0	-	22.7	6.4	13.7	3.7	0.2	0.0	-	24.0	-
PHF	0.781	0.942	0.682	0.750	0.000	-	0.853	0.964	0.970	0.804	0.386	0.000	-	0.925	0.841	0.848	0.750	0.825	0.000	-	0.840	0.875	0.831	0.854	0.500	0.000	-	0.893	0.919
Lights	73	207	59	9	0	-	348	238	354	192	17	0	-	801	74	233	88	99	0	-	494	140	297	82	4	0	-	523	2166
% Lights	97.3	98.1	98.3	100.0	-	-	98.0	97.9	99.2	99.5	100.0	-	-	98.9	100.0	99.6	97.8	100.0	-	-	99.4	100.0	99.3	100.0	100.0	-	-	99.6	99.0
Buses	2	1	0	0	0	-	3	1	0	0	0	0	-	1	0	1	1	0	0	-	2	0	0	0	0	0	-	0	6
% Buses	2.7	0.5	0.0	0.0	-	-	0.8	0.4	0.0	0.0	0.0	-	-	0.1	0.0	0.4	1.1	0.0	-	-	0.4	0.0	0.0	0.0	0.0	-	-	0.0	0.3
Trucks	0	3	1	0	0	-	4	4	3	1	0	0	-	8	0	0	1	0	0	-	1	0	2	0	0	0	-	2	15
% Trucks	0.0	1.4	1.7	0.0	-	-	1.1	1.6	0.8	0.5	0.0	-	-	1.0	0.0	0.0	1.1	0.0	-	-	0.2	0.0	0.7	0.0	0.0	-	-	0.4	0.7
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

North Ridgeville, OH
Lorain Rd & Root Rd
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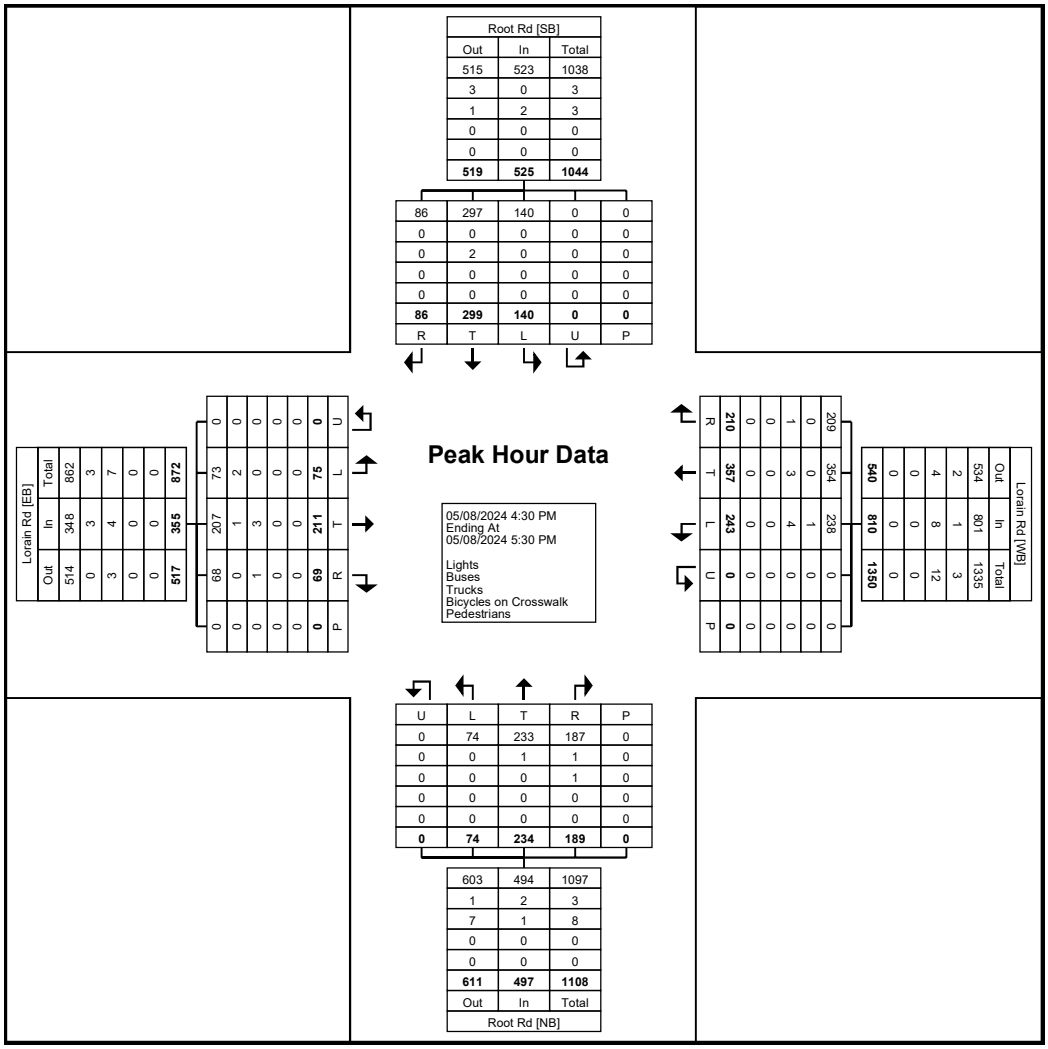


Turning Movement Peak Hour Data Plot (4:30 PM)

APPENDIX B
PRELIMINARY SITE PLAN

ADA COMPLIANCE NOTE

IN ACCORDANCE WITH THE REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT (ADA) OF 1990 AND THE ADA AMENDMENTS ACT OF 2008. ALL RAMPS, CURB RAMPS AND SIDEWALKS SHALL BE CONSTRUCTED IN FULL COMPLIANCE TO THE DOJ 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN (2010 STANDARDS), INCLUDING ALL SUPPLEMENTS.

SLOPE CONSTRAINTS:
- ACCESSIBLE PARKING SPACE AND AISLE–1:48 (2.08%)
- ACCESSIBLE ROUTE– RUNNING SLOPE NOT TO EXCEED 1:20 (5.0%).
- CROSS SLOPE–NOT TO EXCEED 1:48 (2.08%).
- CURB RAMPS AND RAMPS–RUNNING SLOPE NOT TO EXCEED 1:12 (8.33%)
- CURB RAMP FLARED SIDES–NOT TO EXCEED 1:10 (10.0%)

AREA SUMMARY (EXCLUDES RIGHT OF WAY AREA):

TOTAL AREA - 3.985 AC.

BUILDING	- 0.090 Ac.
CANOPIES	- 0.091 Ac.
PAVEMENT/WALKS	- 0.709 Ac.
GRASS	- 1.865 Ac.
WOODS/CREEK AREA	- 1.150 Ac.

LOT COVERAGE (BUILDING/CANOPY) = ~~0.181~~ 0.182 = 4.54%

LOT COVERAGE (IMPERVIOUS AREA) = ~~0.925~~ 0.935 = 24.34%

TOTAL PARKING SPACES REQUIRED PER CODE

- 1 SPACE PER EVERY 200 SF OF RETAIL FLOOR AREA
- 1 SPACE PER EMPLOYEE
  - PROPOSED BUILDING SIZE = 3963 SF
  - 3963 SF/200 SF = 19.82 = 20 SPACES
  - PROPOSED 3 EMPLOYEES PER SHIFT
  - 3 EMPLOYEES x 1 SPACE/EMPLOYEE = 3 SPACES
  - TOTAL REQUIRED = 23 SPACES

TOTAL PARKING SPACES (PROVIDE)

16 @ 9.5'x18' (AUTO PARKING)
+ 1 ADA PARKING SPOT
+ 12 AUTO FUELING POSITIONS
29 TOTAL PARKING + FUELING POSITIONS

GENERAL NOTES

- SEE SHEET C1.1 FOR DETAILED SITE PLAN
- SEE SHEET C6.7 FOR GENERAL SITE CONSTRUCTION NOTES

BUILDING AND CANOPY GENERAL NOTES:

1. REFER TO CERTIFIED BUILDING AND CANOPY DRAWINGS FOR DETAILS AND SPECIFICATIONS.
2. FRONT FACE OF SALES BUILDING AND CANOPY ARE PARALLEL TO THE SOUTHERLY R/W OF LORAIN ROAD BEARING N 41°15'51" E.
3. REFER TO SHEET C6.5 FOR TRASH ENCLOSURE DETAIL.

TANK/FUEL SYSTEM GENERAL NOTES:

1. REFER TO FUEL SYSTEM DRAWINGS (FE AND FG SERIES SHEETS) FOR DETAILS AND SPECIFICATIONS.

YARD AREA GENERAL NOTES:

1. REFER TO C6 SERIES SHEETS FOR YARD AREA DETAILS AND SPECIFICATIONS.

PAVING GENERAL NOTES:

1. EXISTING ROADWAY PAVEMENT DISTURBED BY CONSTRUCTION WORK SHALL BE REPAIRED BY CONTRACTOR TO STATE AND LOCAL STANDARDS.
2. INSTALL ½" EXPANSION JOINT MATERIAL AT ALL CONCRETE CURB AND CONCRETE SLAB ABUTMENTS TO WALKS, PLATFORMS, WALLS AND OTHER CONCRETE SLABS, AND OTHER LOCATIONS AS DEPICTED ON PLAN.
3. CONTRACTOR SHALL PROVIDE CONSTRUCTION AND CRACK CONTROL JOINTS IN CONCRETE SLABS AT 10 FEET ON CENTER EACH WAY AND OTHER LOCATIONS AS DEPICTED ON PLANS. REFERENCE FUEL SYSTEM DRAWING, FUEL PIPING & CANOPY/DISPENSER LAYOUT PLAN, SHEET FG300, FOR CONTROL JOINT LOCATIONS. REFERENCE DETAILS ON SHEET FG304 FOR CONSTRUCTION JOINT AND SAWCUT DETAILS. CONTRACTOR TO SUBMIT JOINT LAYOUT PLAN FOR APPROVAL.
4. REFERENCE CONCRETE PAVING SECTION, SEE SHEET C6.0, DETAIL 2.
5. REFERENCE ASPHALT PAVING SECTION, SEE SHEET C6.0, DETAIL 8.

UTILITIES GENERAL NOTES:

1. ALL UNDERGROUND UTILITIES MUST BE INSTALLED PRIOR TO PREPARATION OF SUBGRADE FOR PAVEMENT.
2. ALL UTILITY WORK SHALL CONFORM TO GOVERNING STATE AND/OR LOCAL SPECIFICATIONS.
3. CONTRACTOR SHALL REVIEW THE FUEL SYSTEM PIPING AND CONDUIT LOCATIONS ON FG AND FE SERIES DRAWINGS AND AVOID INTERFERENCE WITH OTHER UNDERGROUND SITE UTILITIES

LANDSCAPING GENERAL NOTES:

1. REFER TO LANDSCAPE PLAN.

PARCEL AREA AND PPN:

1. PARCEL: 4.384 AC. (INCLUDES R/W AREA)
2. PERMANENT PARCEL #: 0700014106012

BENCHMARKS

ELEVATIONS ARE PER ODOT VRS (CORS SYSTEM) NAVD 88

BENCHMARKS:

BM #1 "X" IN SOUTHERN UPPER BOLT IN FIRE HYDRANT
ELEVATION: 781.13'

BM #2 NORTHEAST BOLT IN UTILITY POLE
ELEVATION: 786.24'

OHIO811.org Before You Dig

LEGEND

- PROPERTY LINES
- RIGHT OF WAY LINES
- SIGHT VISION TRIANGLE - OBJECTS IN THIS AREA MUST BE LESS THAN 36" HIGH ABOVE STREET CURB
- CONCRETE PER DETAILS
- PROPOSED CONCRETE WALK
- EXISTING WETLAND AREA
- # DESIGNATES # OF PARKING SPACES PER ROW

NORTH

SCALE (IN FEET)
1 inch = 30 ft.

CLIENT:

CIRCLE K
GREAT LAKE REGION
935 E. TALLMADGE AVE.
AKRON, OH 44130
(330) 630-6300

CONSULTANT:

Wellert ENGINEERS • SURVEYORS
5136 Beach Road • Medina, Ohio 44256
t: 330.239.2699

NO.	DATE	REVISION DESCRIPTION
A	10/18/24	ISSUED FOR PLANNING COMMISSION APPROVAL
B	11/27/24	PER PRE–HEARING COMMENTS

PROJECT TITLE

PROPOSED NEW CIRCLE K STORE

SITE ADDRESS:

34273 LORAIN RD
N. RIDGEVILLE, OH
44039
LORAIN COUNTY

SCALE:	1" = 30'
DATE:	09/05/2024
DESIGNED BY:	RWW
DRAWN BY:	YO
CHECKED BY:	ID
FILE NAME:	230907 DR–1 DRIVE OPTION.dwg
JOB NUMBER:	230907

DRAWING TITLE:

RIGHT IN/ RIGHT OUT DRIVE OPTION

SHEET NO:

DR–1

File: p:\230907\production\dwg\230907 dr–1 drive option.dwg Saved: 12/12/2024 12:29 PM (rweilert) Plotted: 12/13/2024 12:30 PM (rweilert) Plotstyle: (WC Standard.ctb) Scale: (1:1) Page Setup: (PDF–FULL SIZE)

APPENDIX C
ITE TRIP GENERATION CALCULATIONS

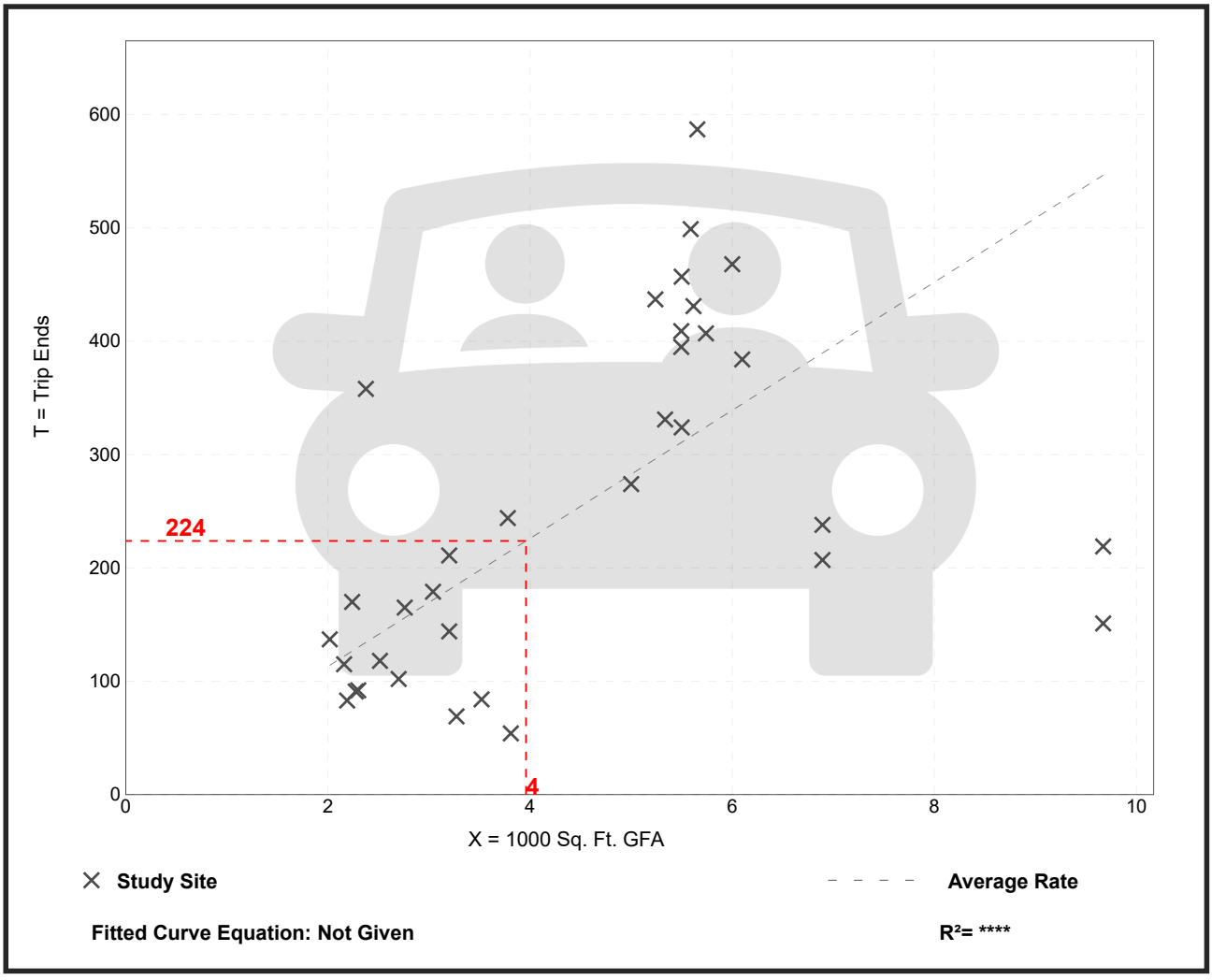
Convenience Store/Gas Station - VFP (9-15)
(945)

Vehicle Trip Ends vs: **1000 Sq. Ft. GFA**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 34
Avg. 1000 Sq. Ft. GFA: 4
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
56.52	14.17 - 150.67	27.56

Data Plot and Equation



Trip Gen Manual, 11th Edition ● Institute of Transportation Engineers

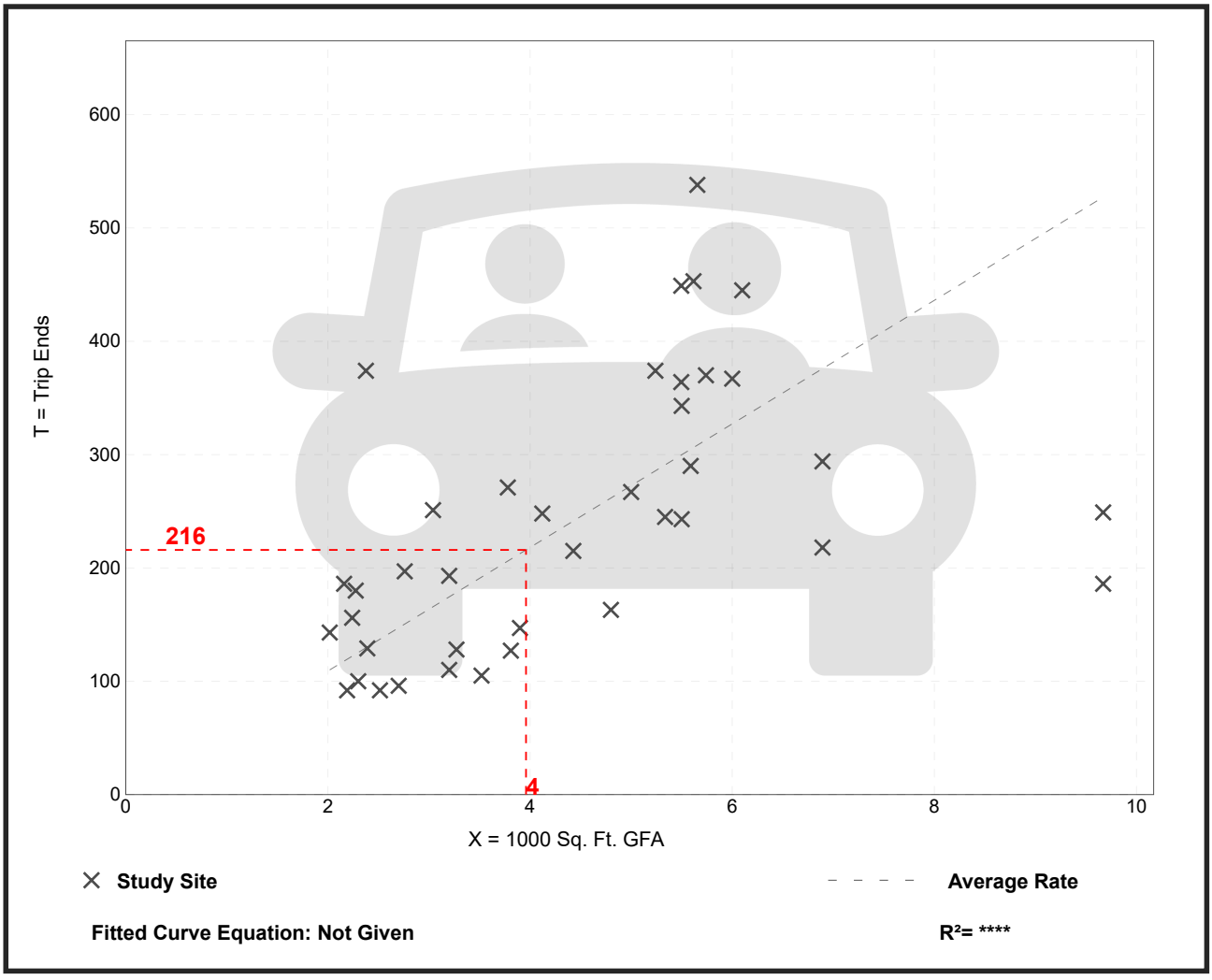
Convenience Store/Gas Station - VFP (9-15)
(945)

Vehicle Trip Ends vs: **1000 Sq. Ft. GFA**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 39
Avg. 1000 Sq. Ft. GFA: 4
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
54.52	19.23 - 157.41	23.69

Data Plot and Equation



Trip Gen Manual, 11th Edition ● Institute of Transportation Engineers

Vehicle Pass-By Rates by Land Use

Source: ITE *Trip Generation Manual*, 11th Edition

Land Use Code	945									
Land Use	Convenience Store/Gas Station									
Setting	General Urban/Suburban									
Time Period	Weekday AM Peak Period									
# Data Sites	16 Sites with between 2 and 8 VFP					28 Sites with between 9 and 20 VFP				
Average Pass-By Rate	60% for Sites with between 2 and 8 VFP					76% for Sites with between 9 and 20 VFP				
	Pass-By Characteristics for Individual Sites									
			Survey		Pass-By	Non-Pass-By Trips			Adj Street Peak	
GFA (000)	VFP	State or Province	Year	# Interviews	Trip (%)	Primary (%)	Diverted (%)	Total (%)	Hour Volume	Source
2	8	Maryland	1992	46	87	13	0	13	2235	25
2.1	6	Maryland	1992	26	58	23	19	42	2080	25
2.1	6	Maryland	1992	26	58	23	19	42	2080	25
2.2	8	Maryland	1992	31	47	34	19	53	1785	25
2.2	< 8	Indiana	1993	79	56	6	38	44	635	2
2.2	8	Maryland	1992	35	78	9	13	22	7080	25
2.3	6	Maryland	1992	37	32	41	27	68	2080	25
2.3	< 8	Kentucky	1993	58	64	5	31	36	1255	2
2.3	6	Maryland	1992	37	32	41	27	68	2080	25
2.4	< 8	Kentucky	1993	—	48	17	35	52	1210	2
2.6	< 8	Kentucky	1993	—	72	15	13	28	940	2
2.8	< 8	Kentucky	1993	—	54	11	35	46	1240	2
3	< 8	Indiana	1993	62	74	10	16	26	790	2
3.6	< 8	Kentucky	1993	49	67	4	29	33	1985	2
3.7	< 8	Kentucky	1993	49	66	16	18	34	990	2
4.694	12	Maryland	2000	—	72	—	—	28	2440	30
4.694	12	Maryland	2000	—	78	—	—	22	1561	30
4.694	12	Maryland	2000	—	79	—	—	21	2764	30
4.848	12	Virginia	2000	—	55	—	—	45	1398	30
5.06	12	Pennsylvania	2000	—	84	—	—	16	3219	30
5.242	12	Virginia	2000	—	74	—	—	26	1160	30
5.242	12	Virginia	2000	—	71	—	—	29	548	30
5.488	12	Delaware	2000	—	80	—	—	20	—	30
5.5	12	Pennsylvania	2000	—	85	—	—	15	2975	30
4.2	< 8	Kentucky	1993	47	62	19	19	38	1705	2
4.694	16	Maryland	2000	—	90	—	—	10	2278	30
4.694	16	Delaware	2000	—	74	—	—	26	2185	30
4.694	16	Delaware	2000	—	58	—	—	42	962	30
4.694	16	Delaware	2000	—	84	—	—	16	2956	30
4.694	16	New Jersey	2000	—	79	—	—	21	1859	30
4.694	20	Delaware	2000	—	84	—	—	16	3864	30
4.848	16	Virginia	2000	—	68	—	—	32	2106	30
4.848	16	Virginia	2000	—	85	—	—	15	2676	30
4.848	16	Virginia	2000	—	75	—	—	25	3244	30
4.848	16	Virginia	2000	—	71	—	—	29	1663	30
4.993	16	Pennsylvania	2000	—	75	—	—	25	1991	30
5.094	16	New Jersey	2000	—	86	—	—	14	1260	30
5.5	16	Pennsylvania	2000	—	82	—	—	18	1570	30
5.543	16	Pennsylvania	2000	—	84	—	—	16	1933	30
5.565	16	Pennsylvania	2000	—	77	—	—	23	2262	30
5.565	16	Pennsylvania	2000	—	68	—	—	32	2854	30
5.565	16	New Jersey	2000	—	58	—	—	42	1253	30
5.565	16	New Jersey	2000	—	79	—	—	21	1928	30
5.565	16	New Jersey	2000	---	84	---	---	16	1953	30

Vehicle Pass-By Rates by Land Use

Source: ITE *Trip Generation Manual*, 11th Edition

Land Use Code	945									
Land Use	Convenience Store/Gas Station									
Setting	General Urban/Suburban									
Time Period	Weekday PM Peak Period									
# Data Sites	12 Sites with between 2 and 8 VFP					28 Sites with between 9 and 20 VFP				
Average Pass-By Rate	56% for Sites with between 2 and 8 VFP					75% for Sites with between 9 and 20 VFP				
	Pass-By Characteristics for Individual Sites									
			Survey		Pass-By	Non-Pass-By Trips			Adj Street Peak	
GFA (000)	VFP	State or Province	Year	# Interviews	Trip (%)	Primary (%)	Diverted (%)	Total (%)	Hour Volume	Source
2.1	8	Maryland	1992	31	52	13	35	48	1785	25
2.1	6	Maryland	1992	30	53	20	27	47	1060	25
2.2	< 8	Indiana	1993	115	48	16	36	52	820	2
2.3	< 8	Kentucky	1993	67	57	16	27	43	1954	2
2.3	6	Maryland	1992	55	40	11	49	60	2760	25
2.4	< 8	Kentucky	1993	—	58	13	29	42	2655	2
2.6	< 8	Kentucky	1993	68	67	15	18	33	950	2
2.8	< 8	Kentucky	1993	—	62	11	27	38	2875	2
3	< 8	Indiana	1993	80	65	15	20	35	1165	2
3.6	< 8	Kentucky	1993	60	56	17	27	44	2505	2
3.7	< 8	Kentucky	1993	70	61	16	23	39	2175	2
4.2	< 8	Kentucky	1993	61	58	26	16	42	2300	2
4.694	12	Maryland	2000	—	78	—	—	22	3549	30
4.694	12	Maryland	2000	—	67	—	—	33	2272	30
4.694	12	Maryland	2000	—	66	—	—	34	3514	30
4.848	12	Virginia	2000	—	71	—	—	29	2350	30
5.06	12	Pennsylvania	2000	—	91	—	—	9	4181	30
5.242	12	Virginia	2000	—	70	—	—	30	2445	30
5.242	12	Virginia	2000	—	56	—	—	44	950	30
5.488	12	Delaware	2000	—	73	—	—	27	—	30
5.5	12	Pennsylvania	2000	—	84	—	—	16	4025	30
4.694	16	Maryland	2000	—	89	—	—	11	2755	30
4.694	16	Delaware	2000	—	73	—	—	27	1858	30
4.694	16	Delaware	2000	—	59	—	—	41	1344	30
4.694	16	Delaware	2000	—	72	—	—	28	3434	30
4.694	16	New Jersey	2000	—	81	—	—	19	1734	30
4.694	20	Delaware	2000	—	76	—	—	24	1616	30
4.848	16	Virginia	2000	—	67	—	—	33	2.954	30
4.848	16	Virginia	2000	—	78	—	—	22	3086	30
4.848	16	Virginia	2000	—	83	—	—	17	4143	30
4.848	16	Virginia	2000	—	73	—	—	27	2534	30
4.993	16	Pennsylvania	2000	—	72	—	—	28	2917	30
5.094	16	New Jersey	2000	—	86	—	—	14	1730	30
5.5	16	Pennsylvania	2000	—	90	—	—	10	2616	30
5.543	16	Pennsylvania	2000	—	87	—	—	13	2363	30
5.565	16	Pennsylvania	2000	—	81	—	—	19	2770	30
5.565	16	Pennsylvania	2000	—	76	—	—	24	3362	30
5.565	16	New Jersey	2000	—	61	—	—	39	1713	30
5.565	16	New Jersey	2000	—	86	—	—	14	1721	30
5.565	16	New Jersey	2000	---	81	---	---	19	2227	30

APPENDIX D
GROWTH RATE INFORMATION

TFMS - Segment Forecast Report

Username	Email	Script Import Date	Script Version	Model Version
Kevin.Westbrooks	kwestbrooks@gpdgroup.com	4/14/2020 5:30:19 PM	2020.001	2023.1900

Forecast Summary

Project ID	Project Name	Opening Year	Design Year
	North Ridgeville Circle K	2025	2045

Project Description

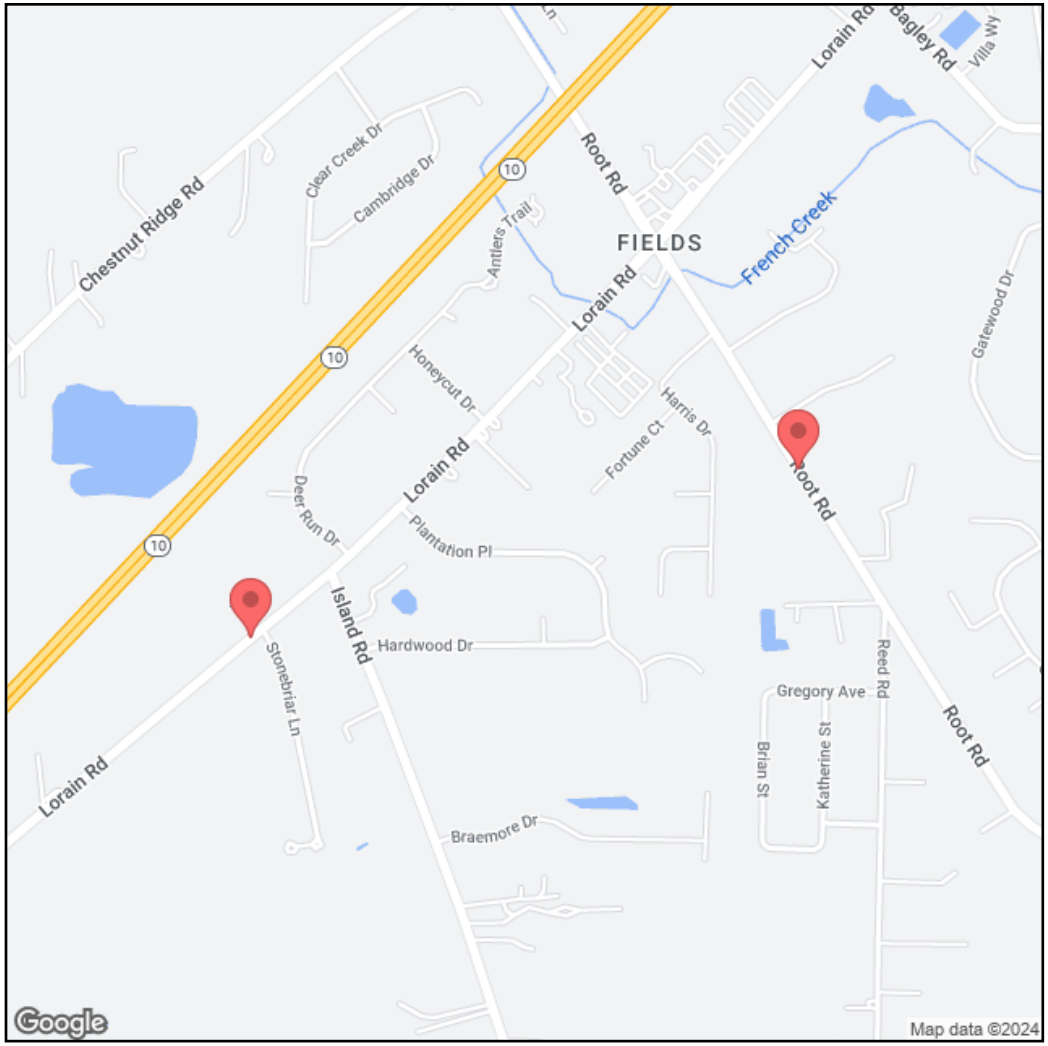
*Users of this data need to be aware that there are limitations to the forecasts generated by this product that make it suitable only for roadway design projects which are low risk.

Segment Information

Segment ID	LRS ID	BMP	EMP	Length	Latitude	Longitude
1799006	CLORCR00024**C	1.385	3.848	2.463	-81.993653717225	41.3638087615791
1872972	TLORTR00012**C	7.585	9.142	1.557	-82.008170698736	41.3604512887035

Forecast Information

Segment ID	2025 AADT	2045 AADT	DHV-30	K%	D%	T24%	TD%
1799006	2,800	3,400	400	12.4	55.3	1	0
1872972	4,700	4,700	600	13.0	70.0	0	0



Definitions:

- AADT – Annual Average Daily Traffic
- DHV30 – Design Hour Volume for 30th highest hour of the year
- DHV30 – K * AADT
- K % – Design Hour Factor
- D % – Peak Direction Factor
- T24 % – Percent Daily Trucks
- TD % – Percent Design Hour Trucks

Forecast Segment ID	Route	BMP	EMP
1799006	CLORCR00024**C	1.385	3.848

Forecast

Year	K%	T24 % (Existing)	PA AADT	PA Method	PA Growth Rate %	PA Calculated Rate %
2050	◆ 12.4	1	3,500	Average	1.100	1.100
AADT	**D%**	**TD % (Existing)**	**BC AADT**	**BC Method**	**BC Growth Rate %**	**BC Calculated Rate %**
3,520	◆ 55.3	0	20	Average	● -2.500	0.000

● Warning: The growth rate was negative and was capped.

◆ K/D factors from TCDS were used.

Regression

Method Number	PA AADT	BC AADT	AADT
2	4,041	-37	4,004

95% Confidence Min/Max

PA Min	PA Max	BC Min	BC Max	Year
-623	10238	-898	384	2050

Method Number	PA Growth %	BC Growth %	PA Drop Count	BC Drop Count	PA AADT	BC AADT	PA Adjustment	PA Adjustment
1	2.33	-11.43	0	0	4,580	-20	4,453	-44
2	1.79	-10.18	4	3	4,000	-30	4,041	-37
3	2.42	-28.57	0	0	4,650	-126	4,516	-140
4	1.90	-13.93	4	3	4,096	-53	4,128	-58
5	2.70	-91.61	0	0	4,882	-504	4,733	-493
6	-999999.00	-999999.00	0	0				

Adjustment Info

ID	Adjustment Methods Name	Model vs Count AADT	Adjusted AADT	Model vs Count BC	Adjusted BC	PA Growth Rate %	BC Growth Rate %
1	DIF	-4,762	3,510	-218	107	0.94	15.54
2	RAT	0.36	3,003	0.08	27	0.37	1.25
3	MRAT	1.11	3,052	1.36	49	0.41	5.18
4	RAF		3,281		78	0.67	10.36

Adjust Method AADT	Adjust Method BC	Selected PA Growth Rate %	Selected BC Growth Rate %
Model Ratio	Model Ratio	0.400	5.200

Method 1 - 4 Volume

PA Min Volume	PA Max Volume	BC Min Volume	BC Max Volume	Total Min Volume	Total Max Volume
2976	3403	27	107	3003	3510

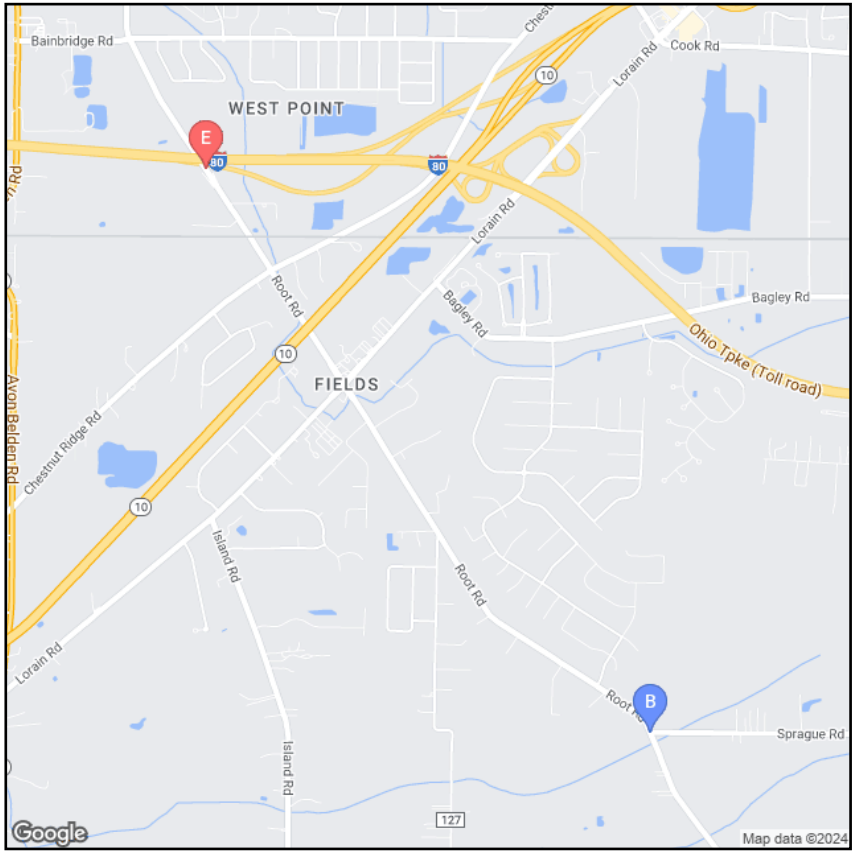
Process Flag: Adjusted model to counts with process per ODOT 255 spreadsheet

Comment: No Comment

Historical Count

Year	All	Cars	Trucks
2011	2,191	2,146	45
2013	2,313	2,265	48
2016	2,388	2,257	130
2019	2,965	2,923	42
* 2022	2,714	2,694	20

* Pivot Point



Segment ID	LRS ID	BMP	EMP	Length	Yr 2025 AADT	Yr 2045 AADT	DHV30	K %	D %	T24 %	TD %
1799006	CLORCR00024**C	1.385	3.848	2.463	2,800	3,400	400	12.4	55.3	1	0

Forecast Segment ID	Route	BMP	EMP
1872972	TLORTR00012**C	7.585	9.142

Forecast

Year	K%	T24 % (Existing)	PA AADT	PA Method	PA Growth Rate %	PA Calculated Rate %
2050	13.0	0	4,700	Average	0.000	0.000
AADT	**D%**	**TD % (Existing)**	**BC AADT**	**BC Method**	**BC Growth Rate %**	**BC Calculated Rate %**
4,700	70.0	0	! 0	Model	-999999.000	0.000

Warning: The growth rate was negative and was capped.

! Warning: FORECAST TRUCKS ZERO BECAUSE NO TRUCK COUNTS ON SEGMENT

Regression

Method Number	PA AADT	BC AADT	AADT
2	5,197		5,197

95% Confidence Min/Max

PA Min	PA Max	BC Min	BC Max	Year
2888	7074	0	56	2050

Method Number	PA Growth %	BC Growth %	PA Drop Count	BC Drop Count	PA AADT	BC AADT	PA Adjustment	PA Adjustment
1	0.53	0.00	0	0	5,457		5,370	
2	0.40	0.00	3	0	5,210		5,197	
3	0.21	0.00	0	0	5,010		4,952	
4	-999999.00	0.00	0	0				
5	-999999.00	0.00	0	0				
6	-999999.00	0.00	0	0				

Adjustment Info

ID	Adjustment Methods Name	Model vs Count AADT	Adjusted AADT	Model vs Count BC	Adjusted BC	PA Growth Rate %	BC Growth Rate %
1	DIF	-3,170	4,007	-470	56	-0.56	0.00
2	RAT	0.60	4,278	0.00		-0.31	0.00
3	MRAT	0.91	4,278	1.12	6	-0.31	0.00
4	RAF		4,142		31	-0.43	0.00

Adjust Method AADT	Adjust Method BC	Selected PA Growth Rate %	Selected BC Growth Rate %
Ratio	Model Ratio	-0.300	0.000

Method 1 - 4 Volume

PA Min Volume	PA Max Volume	BC Min Volume	BC Max Volume	Total Min Volume	Total Max Volume
3951	4278	0	56	3951	4334

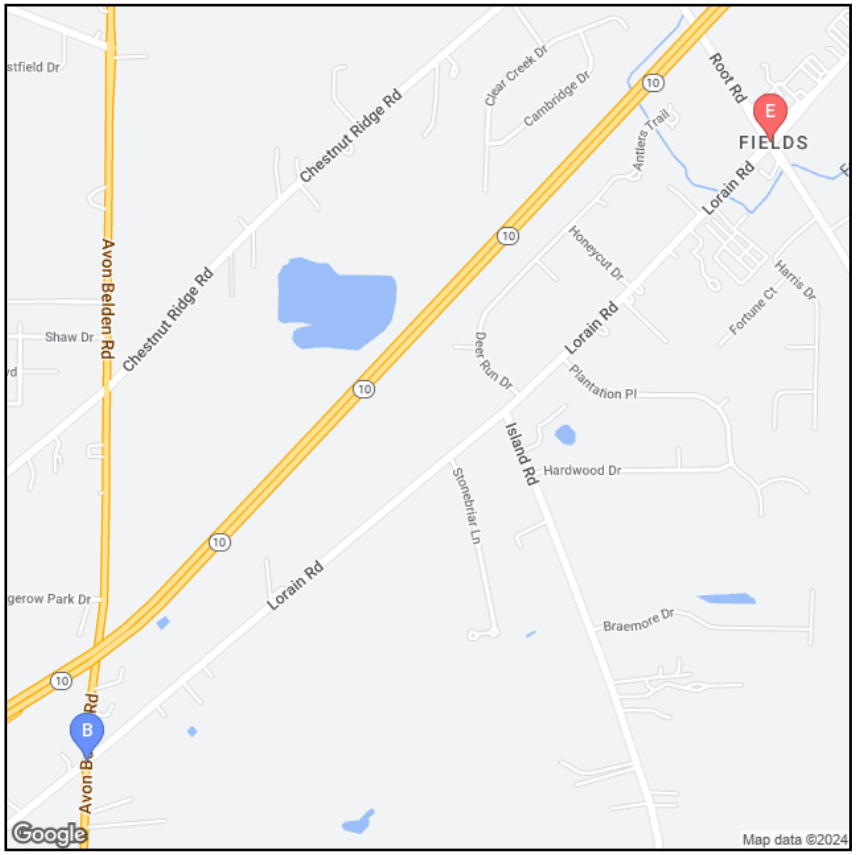
Process Flag: Adjusted model to counts with process per ODOT 255 spreadsheet

Comment: No Comment

Historical Count

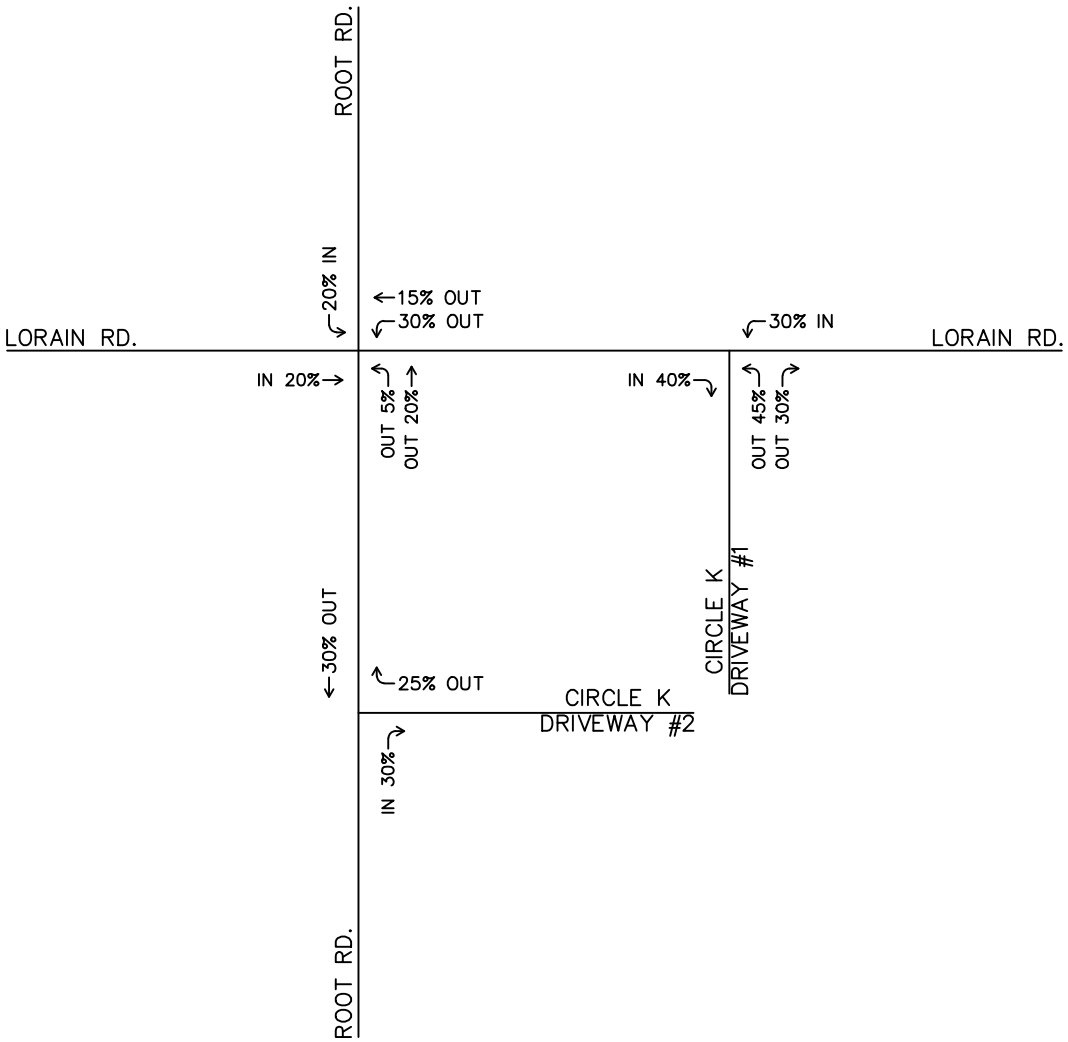
Year	All	Cars	Trucks
2013	4,498	4,498	
2016	4,619	4,619	
2019	4,821	4,821	
* 2022	4,678	4,678	

* Pivot Point



Segment ID	LRS ID	BMP	EMP	Length	Yr 2025 AADT	Yr 2045 AADT	DHV30	K %	D %	T24 %	TD %
1872972	TLORTR00012**C	7.585	9.142	1.557	4,700	4,700	600	13.0	70.0	0	0

APPENDIX E
SITE TRIP DISTRIBUTION AND ASSIGNMENT



N.T.S.

APPENDIX E

PRIMARY TRIP DISTRIBUTION

REVISED JANUARY 2025

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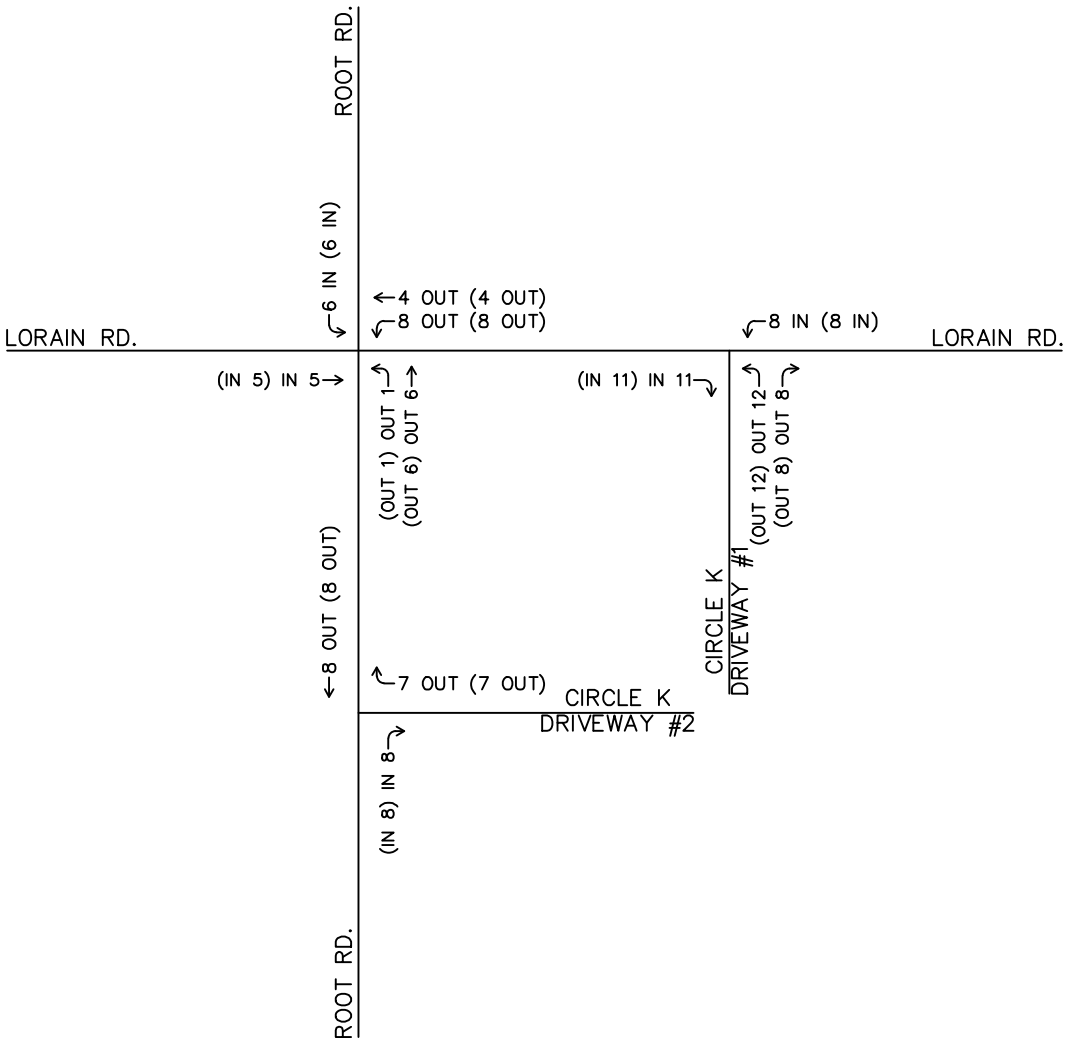

LEGEND
– AM PEAK HOUR
(##) – PM PEAK HOUR

N.T.S.

APPENDIX E

PRIMARY TRIP ASSIGNMENT

REVISED JANUARY 2025

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DATE: 1/3/2025 TIME: 2:20:33 PM
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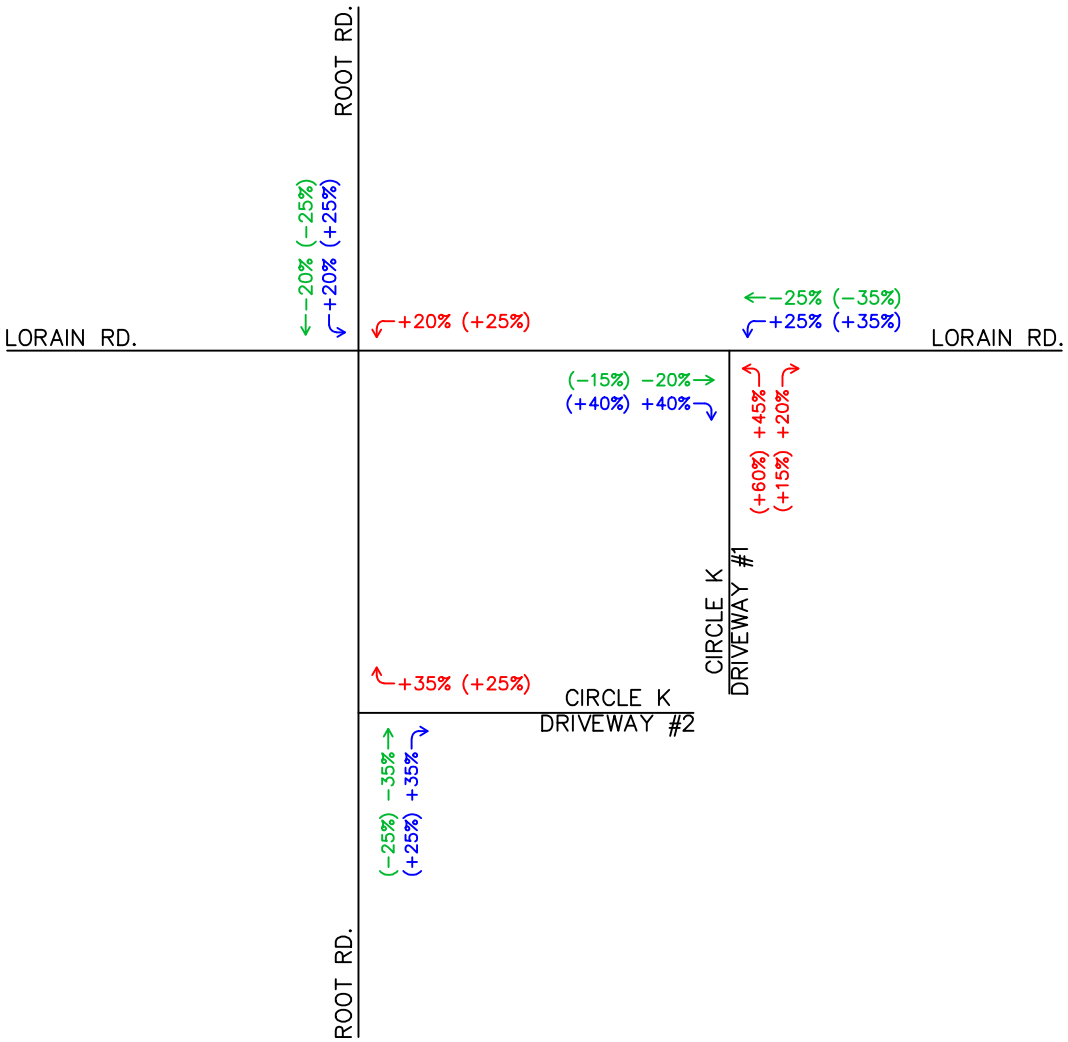

LEGEND

– AM PEAK HOUR
(##) – PM PEAK HOUR
– PASS–BY REDUCTION
– INBOUND PASS–BY
– OUTBOUND PASS–BY

N.T.S.

APPENDIX E

PASS–BY TRIP DISTRIBUTION

REVISED JANUARY 2025

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DATE: 1/3/2025 TIME: 2:20:33 PM
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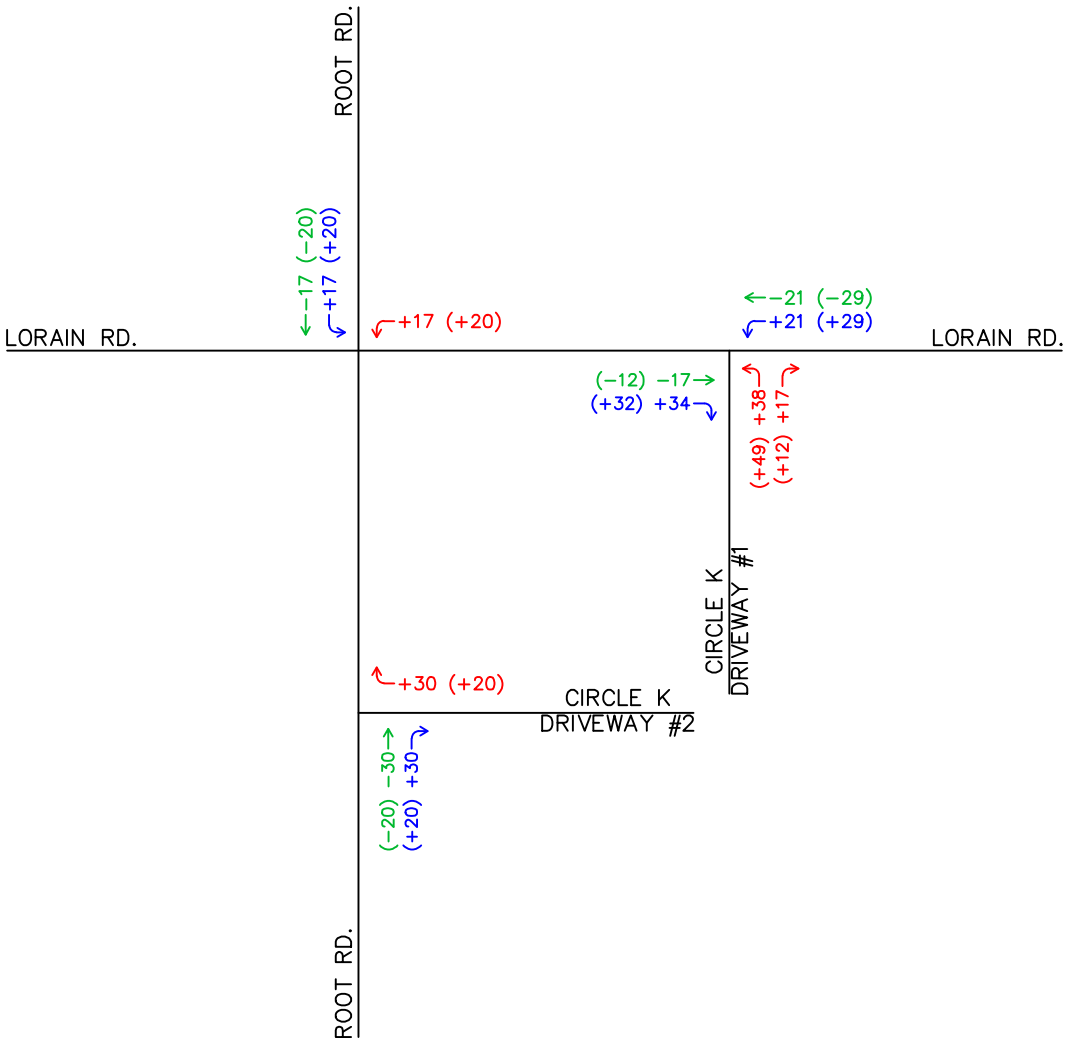

LEGEND

– AM PEAK HOUR
(##) – PM PEAK HOUR
– PASS-BY REDUCTION
– INBOUND PASS-BY
– OUTBOUND PASS-BY

N

N.T.S.

APPENDIX E

PASS-BY TRIP ASSIGNMENT

REVISED JANUARY 2025

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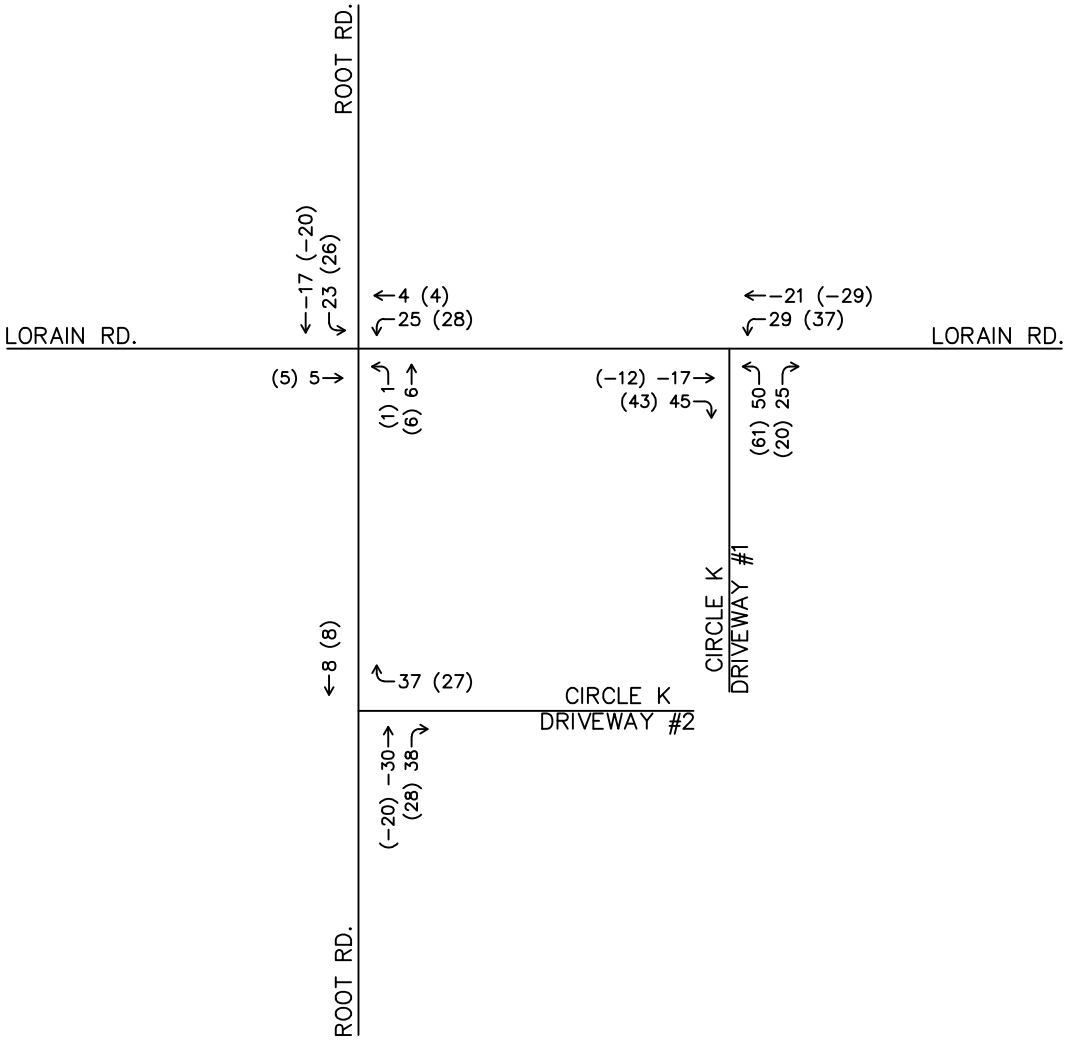
TECHNICIAN: MLESSNER



LEGEND
– AM PEAK HOUR
(##) – PM PEAK HOUR

N.T.S.

APPENDIX E

COMBINED TRIP ASSIGNMENT

REVISED JANUARY 2025

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TECHNICIAN: MLESSITER

APPENDIX F
CRASH DATA SUMMARY AND MAPS

North Ridgeville Circle K Crash Data

Lorain Road / Root Road Intersection
Analysis Years: 2021-2023

TRAFFIC CRASH YEAR	Number	%
2021	2	12.5%
2022	8	50.0%
2023	6	37.5%
Grand Total	**16**	**100.0%**

TYPE OF CRASH	Number	%
Rear End	7	43.8%
Right Turn	3	18.8%
Left Turn	2	12.5%
Angle	2	12.5%
Backing	1	6.3%
Sideswipe - Passing	1	6.3%
Grand Total	**16**	**100.0%**

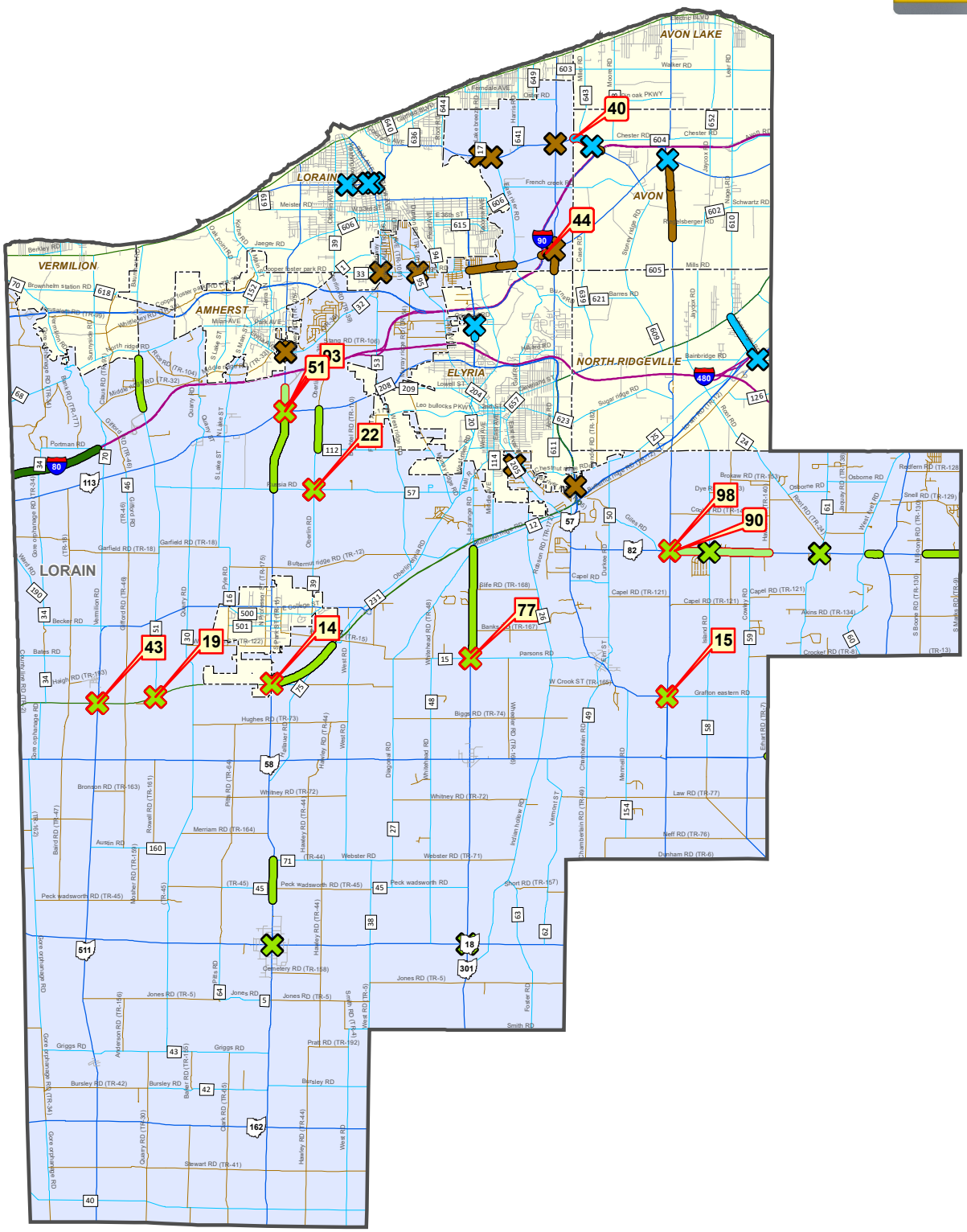
CRASH SEVERITY	Number	%
Injury Crash	2	12.5%
Property Damage Crash	14	87.5%
Grand Total	**16**	**100.0%**

LIGHT CONDITION	Number	%
Daylight	10	62.5%
Dark - Lighted Roadway	4	25.0%
Dawn/Dusk	2	12.5%
Grand Total	**16**	**100.0%**

WEATHER CONDITION	Number	%
Clear	10	62.5%
Rain	3	18.8%
Cloudy	3	18.8%
Grand Total	**16**	**100.0%**

ROAD CONDITION	Number	%
Dry	12	75.0%
Wet	4	25.0%
Grand Total	**16**	**100.0%**

2021 Highway Safety Improvement Program (HSIP) Priority Locations - Lorain County



City Boundary

Roads by Type

- Other Routes
- Interstate Route
- United States Route
- State Route
- County Road
- Township Road

Safety Priority Category

- Rural Intersections
- Suburban Intersections
- Urban Intersections

Safety Priority Category

- Rural Freeway
- Rural Non-Freeway
- Rural Ramp
- Suburban Non-Freeway
- Urban Freeway
- Urban Non-Freeway
- Urban Ramp

Date: 12/12/2022

0 1.25 2.5 5 7.5

Miles

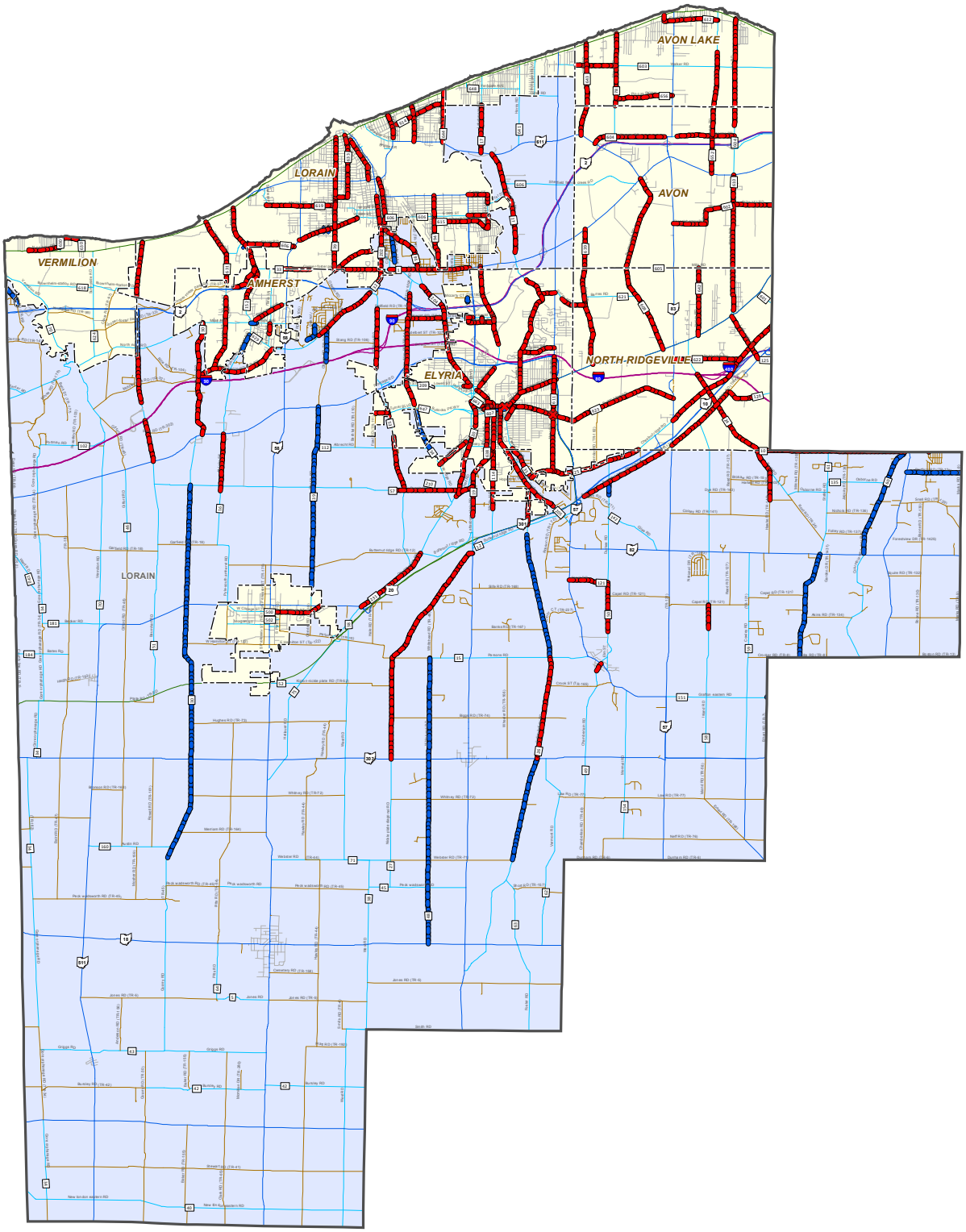
N

odot

Division of Planning

Program Management

SFY2015 Safety Integrated Project Maps - Local System
Lorain County



High Priority

- Intersections/Interchanges
- Segments

Low Cost Improvements

- Intersections/Interchanges
- Segments

- Other Routes

Roads by Type

- Interstate Route
- United States Route
- State Route
- County Road
- Township Road

AASHTOWare Safety Analyst

Date: 2/17/2016

0 1.75 3.5 7 10.5

Miles

N

OHIO DEPARTMENT OF TRANSPORTATION

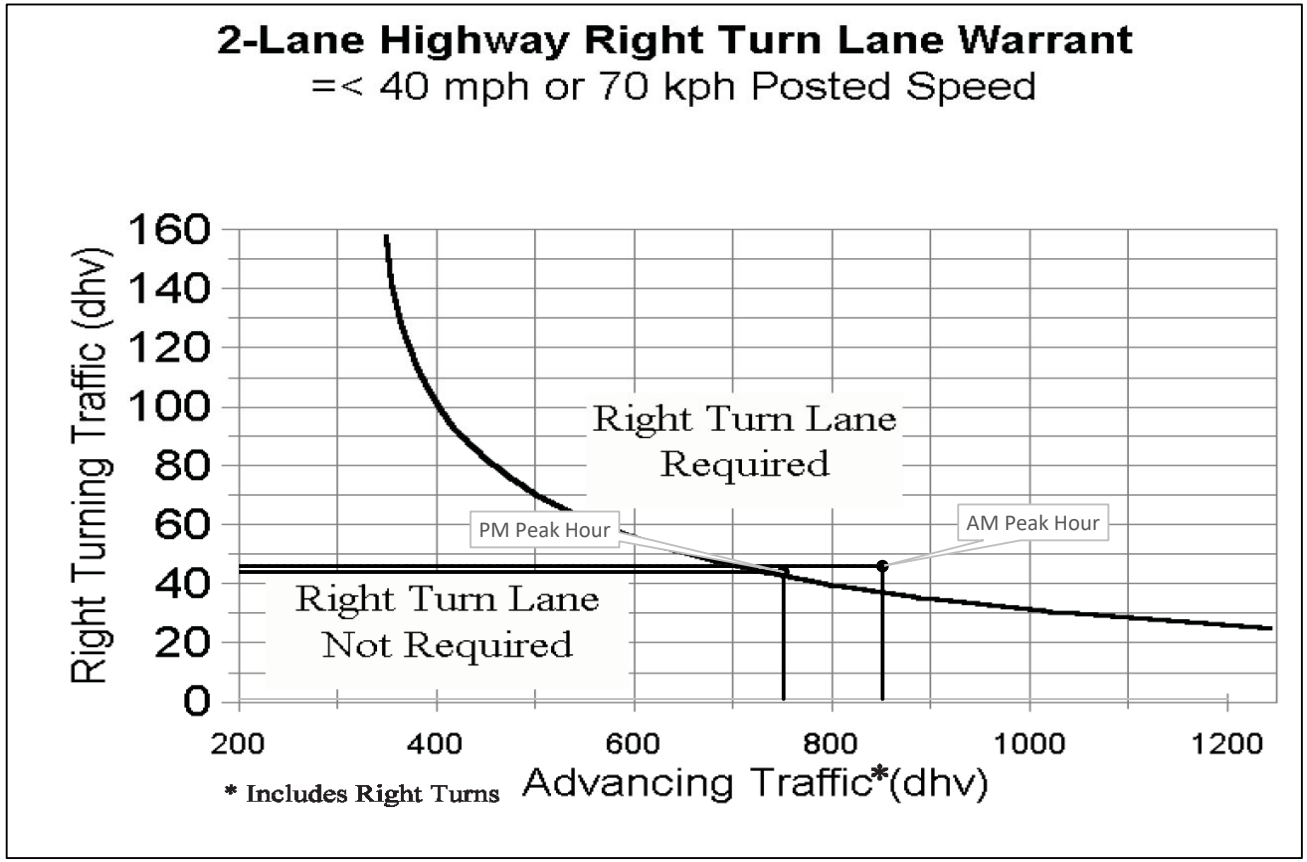
Division of Planning

Office of Program Management

APPENDIX G
AUXILIARY TURN LANE WARRANT ANALYSIS

Lorain Road / Circle K Driveway #1 Intersection

Eastbound Right Turn Lane



Design Year 2045 'Build' Conditions

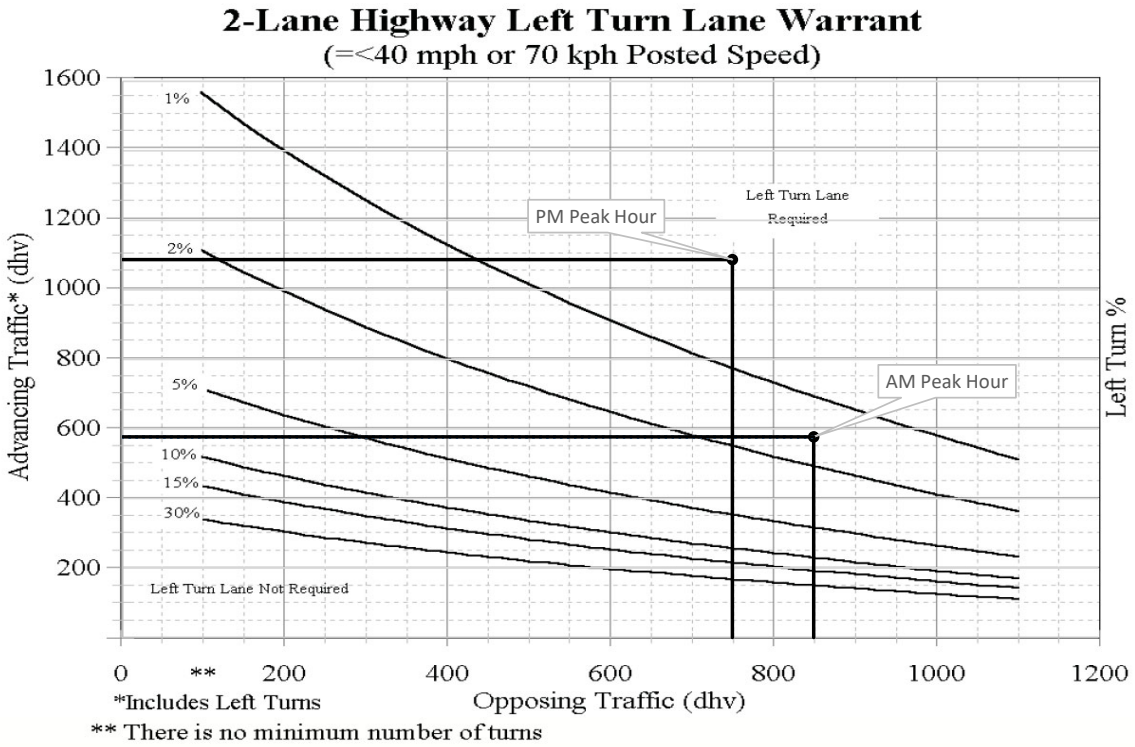
AM Peak Hour:
Advancing Traffic = 850 Veh
Right Turn Traffic = 45 Veh

PM Peak Hour:
Advancing Traffic = 750 Veh
Right Turn Traffic = 43 Veh

Turn Lane Warranted

Lorain Road / Circle K Driveway #1 Intersection

Westbound Left Turn Lane



Design Year 2045 'Build' Conditions

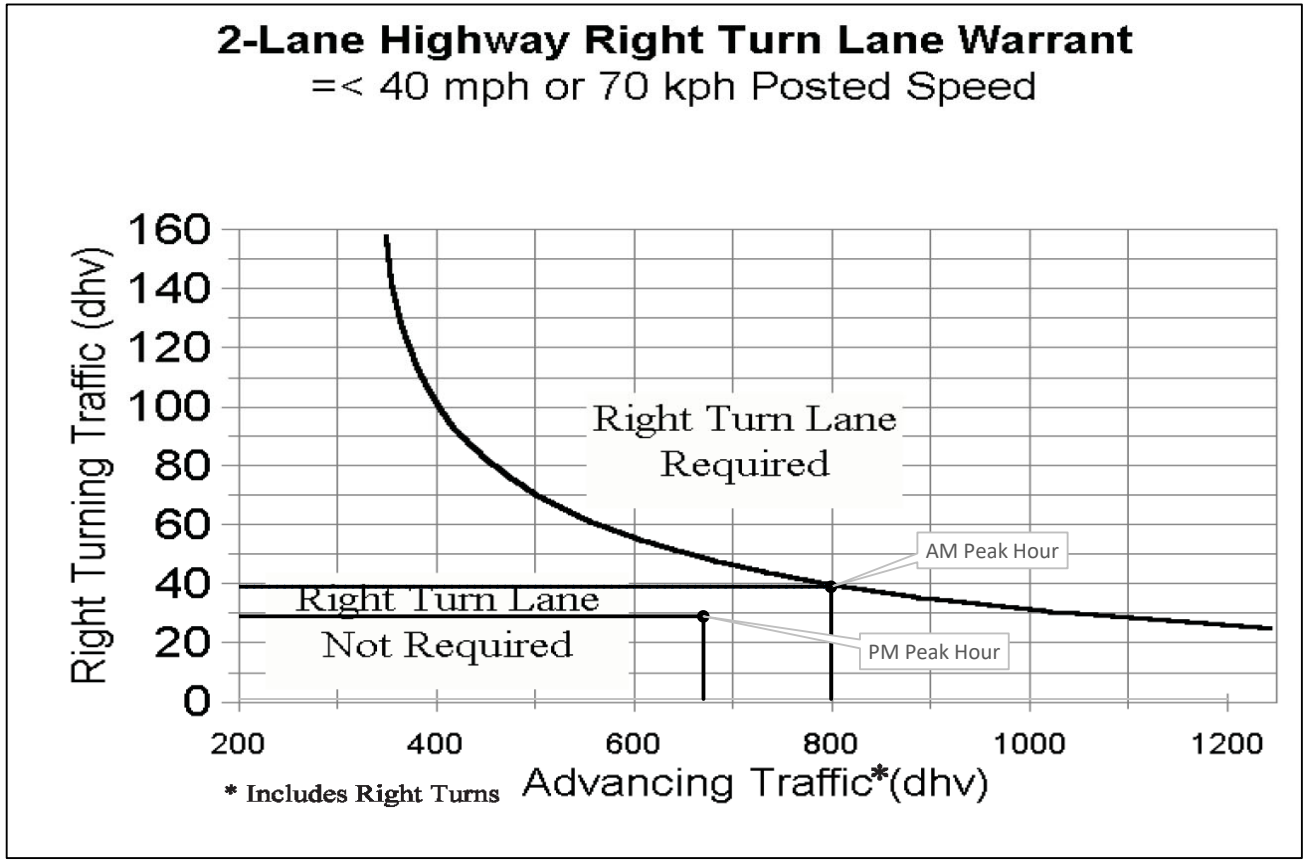
AM Peak Hour:
- Advancing Traffic = 577 Veh
- Left Turn Traffic = 29 Veh
- Opposing Traffic = 850 Veh
- Left Turn % = 5 %

PM Peak Hour:
- Advancing Traffic = 1087 Veh
- Left Turn Traffic = 37 Veh
- Opposing Traffic = 750 Veh
- Left Turn % = 3.4 %

Turn Lane Warranted

Root Road / Circle K Driveway #2 Intersection

Northbound Right Turn Lane



Design Year 2045 'Build' Conditions

AM Peak Hour:
Advancing Traffic = 798 Veh
Right Turn Traffic = 38 Veh

PM Peak Hour:
Advancing Traffic = 669 Veh
Right Turn Traffic = 28 Veh

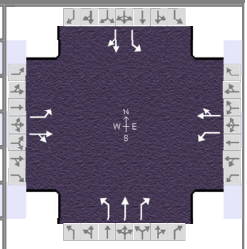
Turn Lane NOT Warranted

APPENDIX H
HCS INTERSECTION CAPACITY ANALYSIS

OPENING YEAR 2025 'NO-BUILD' CONDITIONS

HCS Signalized Intersection Input Data

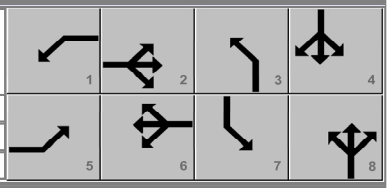
General Information				Intersection Information	
Agency	GPD Group			Duration, h	0.250
Analyst	Ryan Barco	Analysis Date	Jan 3, 2025	Area Type	Other
Jurisdiction	City of North Ridgeville	Time Period	AM Peak Hour	PHF	0.94
Urban Street	Lorain Road	Analysis Year	2025 'No-Build'	Analysis Period	1> 7:00
Intersection	Root Road	File Name	01 2025 AM No-Build Capacity Analysis Lorain &…		
Project Description	North Ridgeville Circle K				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	114	256	56	132	173	170	71	289	300	131	210	54

Signal Information			
Cycle, s	70.5	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	7.3	0.2	20.0	6.2	1.3	17.5						
Yellow	4.0	0.0	4.0	4.0	0.0	4.0						
Red	0.0	0.0	1.0	0.0	0.0	1.0						



Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	114	256	56	132	173	170	71	289	300	131	210	54
Initial Queue (Q_b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s_o), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N_m), man/h		None			None			None			None	
Heavy Vehicles (P_{HV}), %	1	1		3	3		2	2	2	4	4	
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N_b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (*AT*)	3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (*I*)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (*W*), ft	12.0	12.0		12.0	12.0		12.0	12.0	12.0	12.0	12.0	
Turn Bay Length, ft	45	1700		275	2330		45	700	155	200	2320	
Grade (*Pg*), %		0			0			0			0	
Speed Limit, mi/h	35	35	35	35	35	35	35	35	35	35	35	35

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s	21.0	60.0	21.0	60.0	21.0	22.0	21.0	22.0
Yellow Change Interval (*Y*), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Red Clearance Interval (R_c), s	0.0	1.0	0.0	1.0	0.0	1.0	0.0	1.0
Minimum Green (G_{min}), s	8	20	8	20	8	8	8	8
Start-Up Lost Time (*lt*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (*e*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Passage (*PT*), s	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	Off	Min	Off	Min	Off	Off	Off	Off
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (*Walk*), s		0.0		0.0		0.0		0.0
Pedestrian Clearance Time (*PC*), s		0.0		0.0		0.0		0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0.0	No	25.0	0.0	No	25.0	0.0	No	25.0	0.0	No	25.0
Walkway / Crosswalk Width / Length, ft	9.0	12.0	0.0	9.0	12.0	0.0	9.0	12.0	0.0	9.0	12.0	0.0
Street Width / Island / Curb, ft	0.0	0	No	0.0	0	No	0.0	0	No	0.0	0	No
Width Outside / Bike Lane / Shoulder, ft	12.0	5.0	2.0	12.0	5.0	2.0	12.0	5.0	2.0	12.0	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50		No	0.50	

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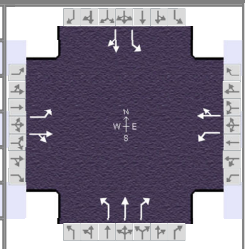
HCS Signalized Intersection Results Summary

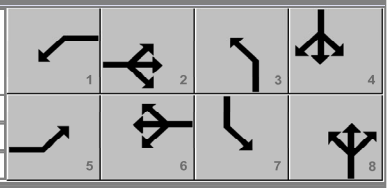
General Information				Intersection Information	
Agency	GPD Group			Duration, h	0.250
Analyst	Ryan Barco	Analysis Date	Jan 3, 2025	Area Type	Other
Jurisdiction	City of North Ridgeville	Time Period	AM Peak Hour	PHF	0.94
Urban Street	Lorain Road	Analysis Year	2025 'No-Build'	Analysis Period	1> 7:00
Intersection	Root Road	File Name	01 2025 AM No-Build Capacity Analysis Lorain &…		
Project Description	North Ridgeville Circle K				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	114	256	56	132	173	170	71	289	300	131	210	54

Signal Information			
Cycle, s	70.5	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	7.3	0.2	20.0	6.2	1.3	17.5						
Yellow	4.0	0.0	4.0	4.0	0.0	4.0						
Red	0.0	0.0	1.0	0.0	0.0	1.0						



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	3	8	7	4
Case Number	1.1	4.0	1.1	4.0	1.1	3.0	1.1	4.0
Phase Duration, s	11.3	25.0	11.5	25.2	10.2	22.5	11.5	23.8
Change Period, (*Y+R c*), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0
Max Allow Headway (*MAH*), s	4.1	4.1	4.1	4.1	4.1	4.2	4.1	4.2
Queue Clearance Time (*g s*), s	5.1	13.2	5.7	15.7	4.1	15.4	5.9	11.7
Green Extension Time (*g e*), s	0.3	2.8	0.4	2.8	0.2	2.1	0.3	2.7
Phase Call Probability	0.91	1.00	0.94	1.00	0.77	1.00	0.93	1.00
Max Out Probability	0.00	0.00	0.00	0.00	0.00	0.59	0.00	0.27

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	121	332		140	365		76	307	319	139	281	
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1795	1826		1767	1704		1781	1870	1585	1753	1775	
Queue Service Time (*g s*), s	3.1	11.2		3.7	13.7		2.1	10.4	13.4	3.9	9.7	
Cycle Queue Clearance Time (*g c*), s	3.1	11.2		3.7	13.7		2.1	10.4	13.4	3.9	9.7	
Green Ratio (*g/C*)	0.39	0.28		0.39	0.29		0.34	0.25	0.25	0.35	0.27	
Capacity (*c*), veh/h	353	518		420	489		369	464	394	395	474	
Volume-to-Capacity Ratio (*X*)	0.344	0.640		0.335	0.746		0.205	0.662	0.811	0.353	0.593	
Back of Queue (*Q*), ft/ln (95 th percentile)	55	205		64	234		37	203	238	69	182	
Back of Queue (*Q*), veh/ln (95 th percentile)	2.2	8.1		2.5	9.1		1.4	8.0	9.4	2.7	7.0	
Queue Storage Ratio (*RQ*) (95 th percentile)	1.22	0.12		0.23	0.10		0.81	0.29	1.53	0.35	0.08	
Uniform Delay (*d 1*), s/veh	16.1	22.1		15.3	22.8		17.0	23.8	24.9	16.8	22.5	
Incremental Delay (*d 2*), s/veh	0.6	1.3		0.5	2.3		0.3	1.9	7.9	0.5	1.2	
Initial Queue Delay (*d 3*), s/veh	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Control Delay (*d*), s/veh	16.7	23.4		15.7	25.1		17.3	25.8	32.9	17.4	23.8	
Level of Service (LOS)	B	C		B	C		B	C	C	B	C	
Approach Delay, s/veh / LOS	21.6	C		22.5	C		28.1	C		21.6	C	
Intersection Delay, s/veh / LOS	24.0						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS								
Bicycle LOS Score / LOS								

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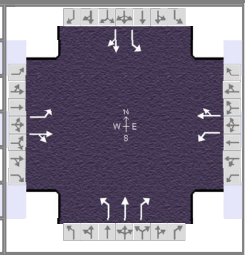
HCS Signalized Intersection Results Graphical Summary

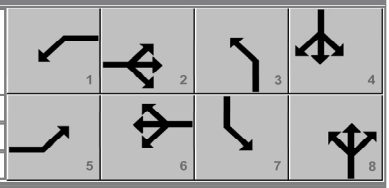
General Information				Intersection Information	
Agency	GPD Group			Duration, h	0.250
Analyst	Ryan Barco	Analysis Date	Jan 3, 2025	Area Type	Other
Jurisdiction	City of North Ridgeville	Time Period	AM Peak Hour	PHF	0.94
Urban Street	Lorain Road	Analysis Year	2025 'No-Build'	Analysis Period	1> 7:00
Intersection	Root Road	File Name	01 2025 AM No-Build Capacity Analysis Lorain &…		
Project Description	North Ridgeville Circle K				



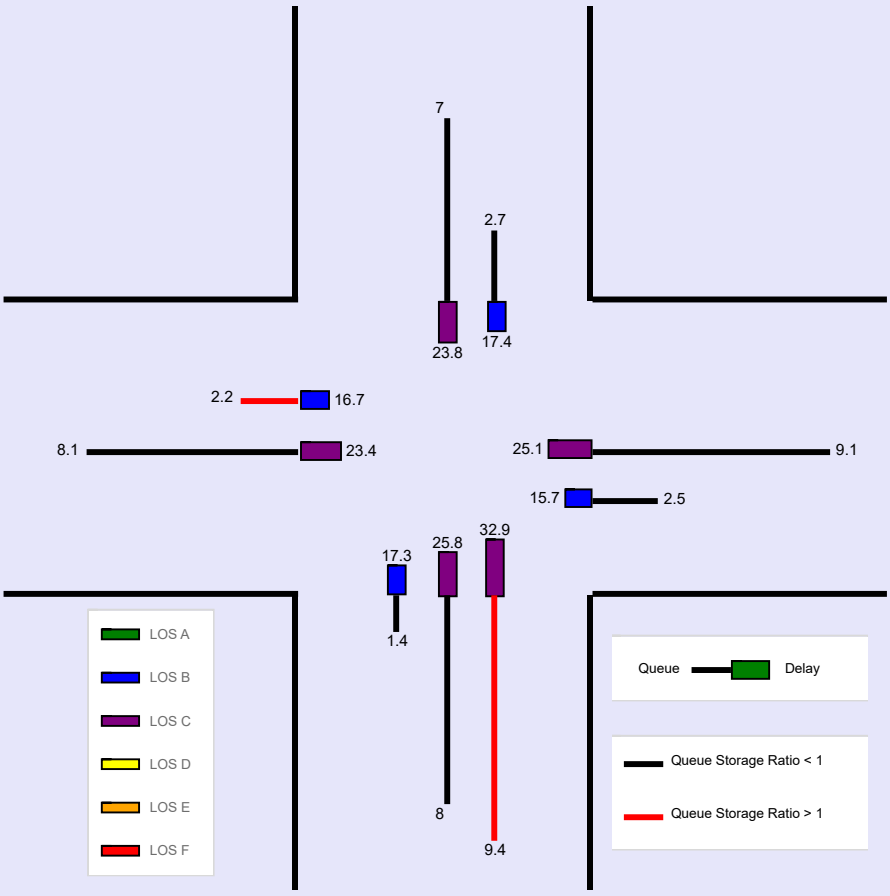
Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	114	256	56	132	173	170	71	289	300	131	210	54

Signal Information			
Cycle, s	70.5	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	7.3	0.2	20.0	6.2	1.3	17.5	
Yellow	4.0	0.0	4.0	4.0	0.0	4.0	
Red	0.0	0.0	1.0	0.0	0.0	1.0	

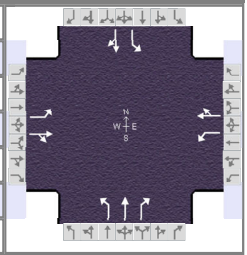


Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Back of Queue (*Q*), ft/ln (95 th percentile)	55	205		64	234		37	203	238	69	182	
Back of Queue (*Q*), veh/ln (95 th percentile)	2.2	8.1		2.5	9.1		1.4	8.0	9.4	2.7	7.0	
Queue Storage Ratio (*RQ*) (95 th percentile)	1.22	0.12		0.23	0.10		0.81	0.29	1.53	0.35	0.08	
Control Delay (*d*), s/veh	16.7	23.4		15.7	25.1		17.3	25.8	32.9	17.4	23.8	
Level of Service (LOS)	B	C		B	C		B	C	C	B	C	
Approach Delay, s/veh / LOS	21.6	C		22.5	C		28.1	C		21.6	C	
Intersection Delay, s/veh / LOS	24.0						C					



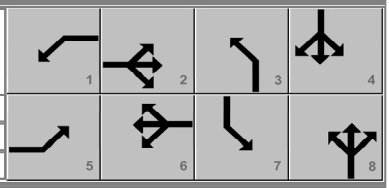
HCS Signalized Intersection Input Data

General Information				Intersection Information	
Agency	GPD Group			Duration, h	0.250
Analyst	Ryan Barco	Analysis Date	Jan 3, 2025	Area Type	Other
Jurisdiction	City of North Ridgeville	Time Period	PM Peak Hour	PHF	0.92
Urban Street	Lorain Road	Analysis Year	2025 'No-Build'	Analysis Period	1> 7:00
Intersection	Root Road	File Name	02 2025 PM No-Build Capacity Analysis Lorain &…		
Project Description	North Ridgeville Circle K				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	84	234	77	270	397	233	82	260	210	156	332	96

Signal Information												
Cycle, s	95.6	Reference Phase	2									
Offset, s	0	Reference Point	End									
Uncoordinated	Yes	Simult. Gap E/W	On	Green	7.3	0.3	36.7	7.3	1.9	20.1		
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	4.0	4.0	4.0	4.0	0.0	4.0		
				Red	0.0	0.0	1.0	0.0	0.0	1.0		



Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	84	234	77	270	397	233	82	260	210	156	332	96
Initial Queue (Q_b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s_o), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N_m), man/h		None			None			None			None	
Heavy Vehicles (P_{HV}), %	2	2		1	1		1	1	1	0	0	
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N_b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (*AT*)	3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (*I*)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (*W*), ft	12.0	12.0		12.0	12.0		12.0	12.0	12.0	12.0	12.0	
Turn Bay Length, ft	45	1700		275	2330		45	700	155	200	2320	
Grade (*Pg*), %		0			0			0			0	
Speed Limit, mi/h	35	35	35	35	35	35	35	35	35	35	35	35

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s	22.0	60.0	22.0	60.0	22.0	22.0	22.0	22.0
Yellow Change Interval (*Y*), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Red Clearance Interval (R_c), s	0.0	1.0	0.0	1.0	0.0	1.0	0.0	1.0
Minimum Green (G_{min}), s	8	20	8	20	8	8	8	8
Start-Up Lost Time (*lt*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (*e*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Passage (*PT*), s	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	Off	Min	Off	Min	Off	Off	Off	Off
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (*Walk*), s		0.0		0.0		0.0		0.0
Pedestrian Clearance Time (*PC*), s		0.0		0.0		0.0		0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0.0	No	25.0	0.0	No	25.0	0.0	No	25.0	0.0	No	25.0
Walkway / Crosswalk Width / Length, ft	9.0	12.0	0.0	9.0	12.0	0.0	9.0	12.0	0.0	9.0	12.0	0.0
Street Width / Island / Curb, ft	0.0	0	No	0.0	0	No	0.0	0	No	0.0	0	No
Width Outside / Bike Lane / Shoulder, ft	12.0	5.0	2.0	12.0	5.0	2.0	12.0	5.0	2.0	12.0	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50		No	0.50	

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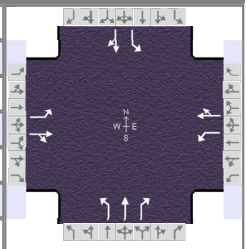
HCS Signalized Intersection Results Summary

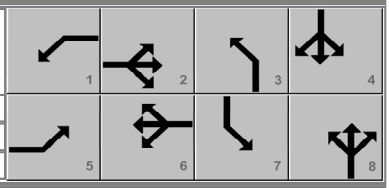
General Information				Intersection Information	
Agency	GPD Group			Duration, h	0.250
Analyst	Ryan Barco	Analysis Date	Jan 3, 2025	Area Type	Other
Jurisdiction	City of North Ridgeville	Time Period	PM Peak Hour	PHF	0.92
Urban Street	Lorain Road	Analysis Year	2025 'No-Build'	Analysis Period	1> 7:00
Intersection	Root Road	File Name	02 2025 PM No-Build Capacity Analysis Lorain &…		
Project Description	North Ridgeville Circle K				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	84	234	77	270	397	233	82	260	210	156	332	96

Signal Information			
Cycle, s	95.6	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	7.3	0.3	36.7	7.3	1.9	20.1	
Yellow	4.0	4.0	4.0	4.0	0.0	4.0	
Red	0.0	0.0	1.0	0.0	0.0	1.0	



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	3	8	7	4
Case Number	1.1	4.0	1.1	4.0	1.1	3.0	1.1	4.0
Phase Duration, s	11.3	41.7	15.6	46.0	11.3	25.1	13.2	27.0
Change Period, ($Y+R_c$), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0
Max Allow Headway (*MAH*), s	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
Queue Clearance Time (g_s), s	4.8	15.7	10.8	36.5	5.6	15.3	8.9	24.0
Green Extension Time (g_e), s	0.2	4.8	0.8	4.5	0.2	2.3	0.4	0.0
Phase Call Probability	0.91	1.00	1.00	1.00	0.91	1.00	0.99	1.00
Max Out Probability	0.00	0.00	0.02	0.03	0.00	0.60	0.00	1.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	91	338		293	685		89	283	228	170	465	
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1781	1791		1795	1768		1795	1885	1598	1810	1826	
Queue Service Time (g_s), s	2.8	13.7		8.8	34.5		3.6	13.3	12.6	6.9	22.0	
Cycle Queue Clearance Time (g_c), s	2.8	13.7		8.8	34.5		3.6	13.3	12.6	6.9	22.0	
Green Ratio (*g/C*)	0.46	0.38		0.53	0.43		0.29	0.21	0.21	0.31	0.23	
Capacity (*c*), veh/h	248	687		547	759		212	396	335	327	420	
Volume-to-Capacity Ratio (*X*)	0.369	0.492		0.536	0.903		0.421	0.714	0.681	0.518	1.107	
Back of Queue (*Q*), ft/ln (95 th percentile)	52	242		156	540		71	269	224	134	671	
Back of Queue (*Q*), veh/ln (95 th percentile)	2.0	9.5		6.2	21.4		2.8	10.7	8.9	5.3	26.8	
Queue Storage Ratio (*RQ*) (95 th percentile)	1.16	0.14		0.57	0.23		1.57	0.38	1.45	0.67	0.29	
Uniform Delay (d_1), s/veh	20.8	22.4		14.6	25.4		27.8	35.1	34.8	26.5	36.8	
Incremental Delay (d_2), s/veh	0.9	0.5		0.8	7.5		1.3	5.0	4.5	1.3	76.0	
Initial Queue Delay (d_3), s/veh	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Control Delay (*d*), s/veh	21.7	22.9		15.4	32.9		29.1	40.1	39.3	27.8	112.8	
Level of Service (LOS)	C	C		B	C		C	D	D	C	F	
Approach Delay, s/veh / LOS	22.7	C		27.7	C		38.1	D		90.1	F	
Intersection Delay, s/veh / LOS	44.2						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS								
Bicycle LOS Score / LOS								

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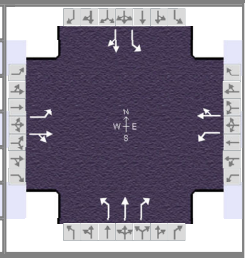
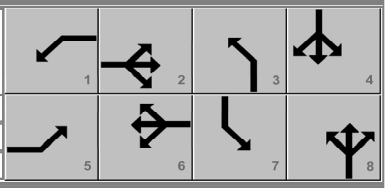
HCS Signalized Intersection Results Graphical Summary

General Information				Intersection Information	
Agency	GPD Group			Duration, h	0.250
Analyst	Ryan Barco	Analysis Date	Jan 3, 2025	Area Type	Other
Jurisdiction	City of North Ridgeville	Time Period	PM Peak Hour	PHF	0.92
Urban Street	Lorain Road	Analysis Year	2025 'No-Build'	Analysis Period	1> 7:00
Intersection	Root Road	File Name	02 2025 PM No-Build Capacity Analysis Lorain &…		
Project Description	North Ridgeville Circle K				

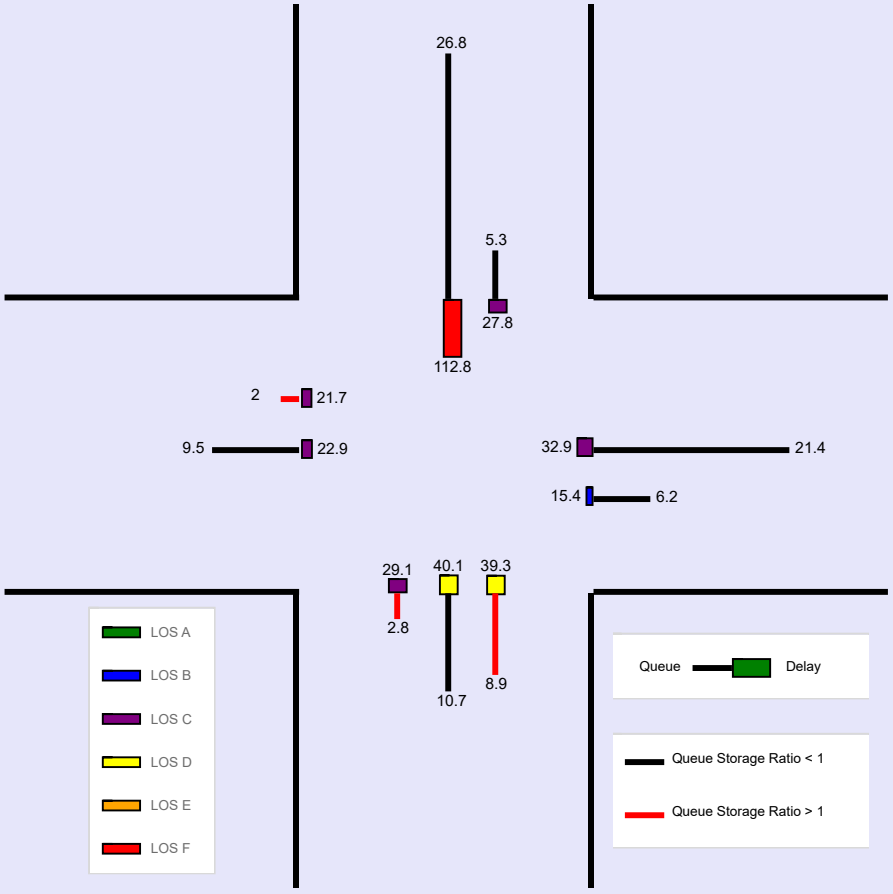


Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	84	234	77	270	397	233	82	260	210	156	332	96

Signal Information												
Cycle, s	95.6	Reference Phase	2									
Offset, s	0	Reference Point	End									
Uncoordinated	Yes	Simult. Gap E/W	On									
Force Mode	Fixed	Simult. Gap N/S	On									
				Green	7.3	0.3	36.7	7.3	1.9	20.1		
				Yellow	4.0	4.0	4.0	4.0	0.0	4.0		
				Red	0.0	0.0	1.0	0.0	0.0	1.0		



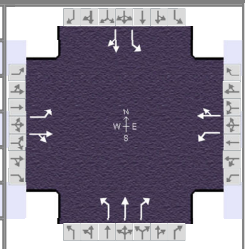
Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Back of Queue (*Q*), ft/ln (95 th percentile)	52	242		156	540		71	269	224	134	671	
Back of Queue (*Q*), veh/ln (95 th percentile)	2.0	9.5		6.2	21.4		2.8	10.7	8.9	5.3	26.8	
Queue Storage Ratio (*RQ*) (95 th percentile)	1.16	0.14		0.57	0.23		1.57	0.38	1.45	0.67	0.29	
Control Delay (*d*), s/veh	21.7	22.9		15.4	32.9		29.1	40.1	39.3	27.8	112.8	
Level of Service (LOS)	C	C		B	C		C	D	D	C	F	
Approach Delay, s/veh / LOS	22.7	C		27.7	C		38.1	D		90.1	F	
Intersection Delay, s/veh / LOS	44.2						D					



DESIGN YEAR 2045 'NO-BUILD' CONDITIONS

HCS Signalized Intersection Input Data

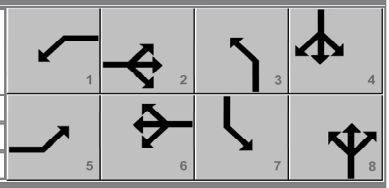
General Information				Intersection Information	
Agency	GPD Group			Duration, h	0.250
Analyst	Ryan Barco	Analysis Date	May 17, 2024	Area Type	Other
Jurisdiction	City of North Ridgeville	Time Period	AM Peak Hour	PHF	0.94
Urban Street	Lorain Road	Analysis Year	2045 'No-Build'	Analysis Period	1> 7:00
Intersection	Root Road	File Name	01 2045 AM No-Build Capacity Analysis Lorain &…		
Project Description	North Ridgeville Circle K				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	137	306	67	159	207	203	85	346	359	157	252	64

Signal Information			
Cycle, s	79.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	7.7	0.1	24.2	6.9	0.9	21.2						
Yellow	4.0	0.0	4.0	4.0	0.0	4.0						
Red	0.0	0.0	1.0	0.0	0.0	1.0						



Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	137	306	67	159	207	203	85	346	359	157	252	64
Initial Queue (Q_b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s_o), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N_m), man/h		None			None			None			None	
Heavy Vehicles (P_{HV}), %	1	1		3	3		2	2	2	4	4	
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N_b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (*AT*)	3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (*I*)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (*W*), ft	12.0	12.0		12.0	12.0		12.0	12.0	12.0	12.0	12.0	
Turn Bay Length, ft	45	1700		275	2330		45	700	155	200	2320	
Grade (*Pg*), %		0			0			0			0	
Speed Limit, mi/h	35	35	35	35	35	35	35	35	35	35	35	35

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s	21.0	60.0	21.0	60.0	21.0	22.0	21.0	22.0
Yellow Change Interval (*Y*), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Red Clearance Interval (R_c), s	0.0	1.0	0.0	1.0	0.0	1.0	0.0	1.0
Minimum Green (G_{min}), s	8	20	8	20	8	8	8	8
Start-Up Lost Time (*lt*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (*e*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Passage (*PT*), s	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	Off	Min	Off	Min	Off	Off	Off	Off
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (*Walk*), s		0.0		0.0		0.0		0.0
Pedestrian Clearance Time (*PC*), s		0.0		0.0		0.0		0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0.0	No	25.0	0.0	No	25.0	0.0	No	25.0	0.0	No	25.0
Walkway / Crosswalk Width / Length, ft	9.0	12.0	0.0	9.0	12.0	0.0	9.0	12.0	0.0	9.0	12.0	0.0
Street Width / Island / Curb, ft	0.0	0	No	0.0	0	No	0.0	0	No	0.0	0	No
Width Outside / Bike Lane / Shoulder, ft	12.0	5.0	2.0	12.0	5.0	2.0	12.0	5.0	2.0	12.0	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50		No	0.50	

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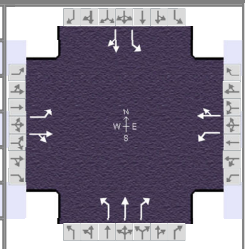
HCS Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	GPD Group			Duration, h	0.250
Analyst	Ryan Barco	Analysis Date	May 17, 2024	Area Type	Other
Jurisdiction	City of North Ridgeville	Time Period	AM Peak Hour	PHF	0.94
Urban Street	Lorain Road	Analysis Year	2045 'No-Build'	Analysis Period	1> 7:00
Intersection	Root Road	File Name	01 2045 AM No-Build Capacity Analysis Lorain &…		
Project Description	North Ridgeville Circle K				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	137	306	67	159	207	203	85	346	359	157	252	64

Signal Information			
Cycle, s	79.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	7.7	0.1	24.2	6.9	0.9	21.2	1	2	3	4		
Yellow	4.0	0.0	4.0	4.0	0.0	4.0	5	6	7	8		
Red	0.0	0.0	1.0	0.0	0.0	1.0						

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	3	8	7	4
Case Number	1.1	4.0	1.1	4.0	1.1	3.0	1.1	4.0
Phase Duration, s	11.7	29.2	11.8	29.3	10.9	26.2	11.8	27.1
Change Period, ($Y+R_c$), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0
Max Allow Headway (*MAH*), s	4.1	4.1	4.1	4.1	4.1	4.2	4.1	4.2
Queue Clearance Time (g_s), s	6.2	17.2	7.0	20.8	4.7	20.4	7.3	15.3
Green Extension Time (g_e), s	0.4	3.5	0.4	3.5	0.2	0.8	0.4	2.6
Phase Call Probability	0.96	1.00	0.98	1.00	0.86	1.00	0.97	1.00
Max Out Probability	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.65

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	146	397		169	436		90	368	382	167	336	
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1795	1826		1767	1704		1781	1870	1585	1753	1776	
Queue Service Time (g_s), s	4.2	15.2		5.0	18.8		2.7	14.2	18.4	5.3	13.3	
Cycle Queue Clearance Time (g_c), s	4.2	15.2		5.0	18.8		2.7	14.2	18.4	5.3	13.3	
Green Ratio (*g/C*)	0.40	0.31		0.41	0.31		0.36	0.27	0.27	0.37	0.28	
Capacity (*c*), veh/h	309	560		378	525		336	501	425	353	496	
Volume-to-Capacity Ratio (*X*)	0.472	0.709		0.447	0.830		0.269	0.734	0.899	0.474	0.677	
Back of Queue (*Q*), ft/ln (95 th percentile)	76	266		89	310		50	276	351	97	251	
Back of Queue (*Q*), veh/ln (95 th percentile)	3.0	10.5		3.5	12.1		2.0	10.9	13.8	3.7	9.7	
Queue Storage Ratio (*RQ*) (95 th percentile)	1.68	0.16		0.32	0.13		1.11	0.40	2.27	0.48	0.11	
Uniform Delay (d_1), s/veh	18.5	24.3		17.2	25.4		18.7	26.4	27.9	19.0	25.3	
Incremental Delay (d_2), s/veh	1.1	1.7		0.8	3.5		0.4	5.1	20.5	1.0	3.7	
Initial Queue Delay (d_3), s/veh	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Control Delay (*d*), s/veh	19.6	25.9		18.0	28.9		19.2	31.5	48.3	20.0	29.0	
Level of Service (LOS)	B	C		B	C		B	C	D	C	C	
Approach Delay, s/veh / LOS	24.2	C		25.9	C		37.8	D		26.0	C	
Intersection Delay, s/veh / LOS	29.6						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS								
Bicycle LOS Score / LOS								

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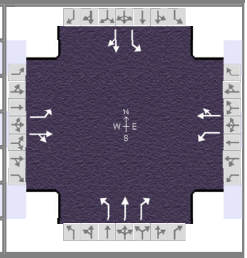
HCS Signalized Intersection Results Graphical Summary

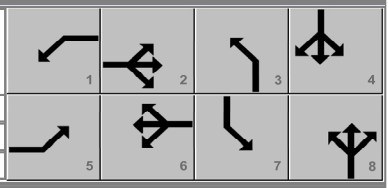
General Information				Intersection Information	
Agency	GPD Group			Duration, h	0.250
Analyst	Ryan Barco	Analysis Date	May 17, 2024	Area Type	Other
Jurisdiction	City of North Ridgeville	Time Period	AM Peak Hour	PHF	0.94
Urban Street	Lorain Road	Analysis Year	2045 'No-Build'	Analysis Period	1> 7:00
Intersection	Root Road	File Name	01 2045 AM No-Build Capacity Analysis Lorain &…		
Project Description	North Ridgeville Circle K				



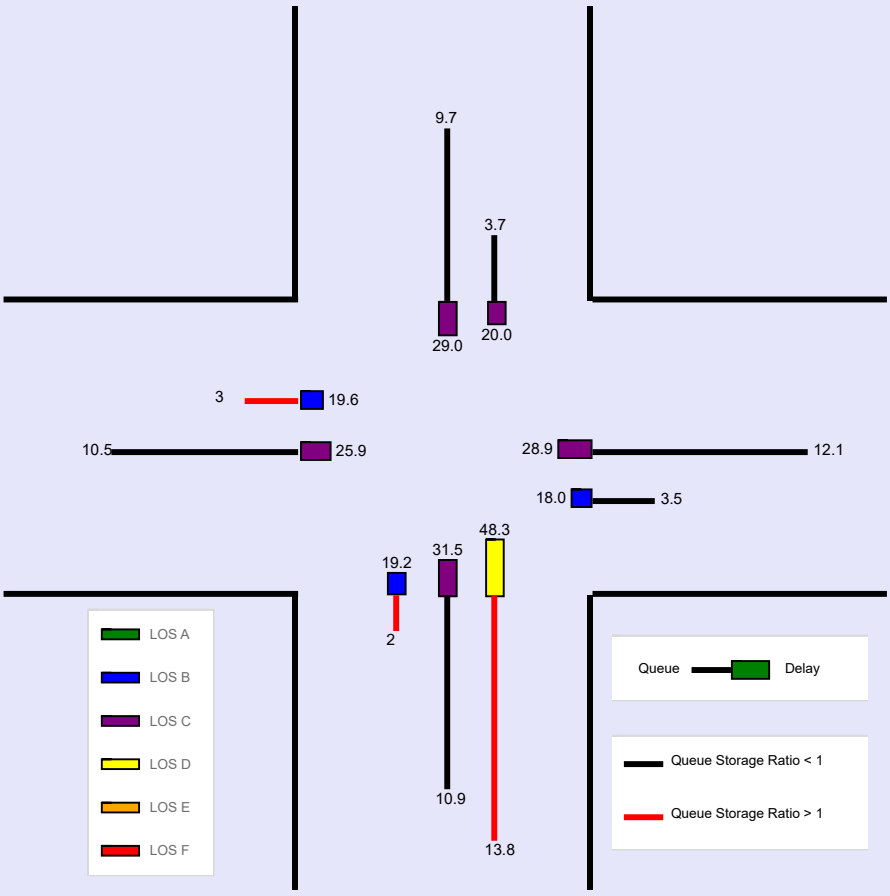
Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	137	306	67	159	207	203	85	346	359	157	252	64

Signal Information			
Cycle, s	79.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	7.7	0.1	24.2	6.9	0.9	21.2	
Yellow	4.0	0.0	4.0	4.0	0.0	4.0	
Red	0.0	0.0	1.0	0.0	0.0	1.0	

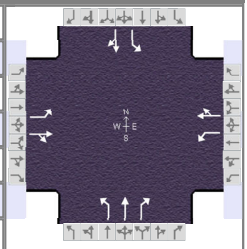


Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Back of Queue (*Q*), ft/ln (95 th percentile)	76	266		89	310		50	276	351	97	251	
Back of Queue (*Q*), veh/ln (95 th percentile)	3.0	10.5		3.5	12.1		2.0	10.9	13.8	3.7	9.7	
Queue Storage Ratio (*RQ*) (95 th percentile)	1.68	0.16		0.32	0.13		1.11	0.40	2.27	0.48	0.11	
Control Delay (*d*), s/veh	19.6	25.9		18.0	28.9		19.2	31.5	48.3	20.0	29.0	
Level of Service (LOS)	B	C		B	C		B	C	D	C	C	
Approach Delay, s/veh / LOS	24.2	C		25.9	C		37.8	D		26.0	C	
Intersection Delay, s/veh / LOS	29.6						C					



HCS Signalized Intersection Input Data

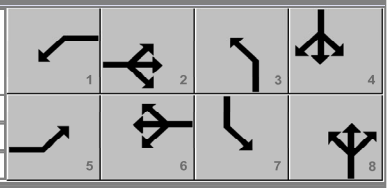
General Information				Intersection Information	
Agency	GPD Group			Duration, h	0.250
Analyst	Ryan Barco	Analysis Date	May 17, 2024	Area Type	Other
Jurisdiction	City of North Ridgeville	Time Period	PM Peak Hour	PHF	0.92
Urban Street	Lorain Road	Analysis Year	2045 'No-Build'	Analysis Period	1> 7:00
Intersection	Root Road	File Name	02 2045 PM No-Build Capacity Analysis Lorain &…		
Project Description	North Ridgeville Circle K				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	100	281	92	323	476	280	98	311	252	186	398	115

Signal Information			
Cycle, s	117.6	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	7.8	3.3	49.9	7.8	0.9	22.0						
Yellow	4.0	4.0	4.0	4.0	4.0	4.0						
Red	0.0	0.0	1.0	0.0	0.0	1.0						



Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	100	281	92	323	476	280	98	311	252	186	398	115
Initial Queue (Q_b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s_o), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N_m), man/h		None			None			None			None	
Heavy Vehicles (P_{HV}), %	2	2		1	1		1	1	1	0	0	
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N_b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (*AT*)	3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (*I*)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (*W*), ft	12.0	12.0		12.0	12.0		12.0	12.0	12.0	12.0	12.0	
Turn Bay Length, ft	45	1700		275	2330		45	700	155	200	2320	
Grade (*Pg*), %		0			0			0			0	
Speed Limit, mi/h	35	35	35	35	35	35	35	35	35	35	35	35

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s	22.0	60.0	22.0	60.0	22.0	22.0	22.0	22.0
Yellow Change Interval (*Y*), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Red Clearance Interval (R_c), s	0.0	1.0	0.0	1.0	0.0	1.0	0.0	1.0
Minimum Green (G_{min}), s	8	20	8	20	8	8	8	8
Start-Up Lost Time (*l*t), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (*e*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Passage (*PT*), s	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	Off	Min	Off	Min	Off	Off	Off	Off
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (*Walk*), s		0.0		0.0		0.0		0.0
Pedestrian Clearance Time (*PC*), s		0.0		0.0		0.0		0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0.0	No	25.0	0.0	No	25.0	0.0	No	25.0	0.0	No	25.0
Walkway / Crosswalk Width / Length, ft	9.0	12.0	0.0	9.0	12.0	0.0	9.0	12.0	0.0	9.0	12.0	0.0
Street Width / Island / Curb, ft	0.0	0	No	0.0	0	No	0.0	0	No	0.0	0	No
Width Outside / Bike Lane / Shoulder, ft	12.0	5.0	2.0	12.0	5.0	2.0	12.0	5.0	2.0	12.0	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50		No	0.50	

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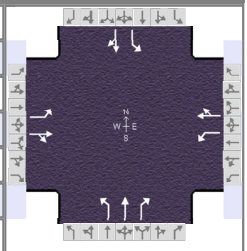
HCS Signalized Intersection Results Summary

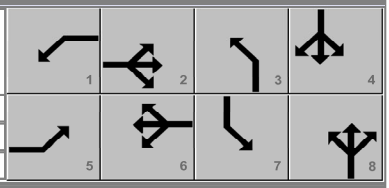
General Information				Intersection Information	
Agency	GPD Group			Duration, h	0.250
Analyst	Ryan Barco	Analysis Date	May 17, 2024	Area Type	Other
Jurisdiction	City of North Ridgeville	Time Period	PM Peak Hour	PHF	0.92
Urban Street	Lorain Road	Analysis Year	2045 'No-Build'	Analysis Period	1> 7:00
Intersection	Root Road	File Name	02 2045 PM No-Build Capacity Analysis Lorain &…		
Project Description	North Ridgeville Circle K				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	100	281	92	323	476	280	98	311	252	186	398	115

Signal Information			
Cycle, s	117.6	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	7.8	3.3	49.9	7.8	0.9	22.0	
Yellow	4.0	4.0	4.0	4.0	4.0	4.0	
Red	0.0	0.0	1.0	0.0	0.0	1.0	



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	3	8	7	4
Case Number	1.1	4.0	1.1	4.0	1.1	3.0	1.1	4.0
Phase Duration, s	11.8	54.9	19.1	62.2	11.8	27.0	16.6	31.9
Change Period, (*Y+R c*), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0
Max Allow Headway (*MAH*), s	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
Queue Clearance Time (*g s*), s	5.9	21.8	14.3	54.5	7.5	22.9	12.2	28.9
Green Extension Time (*g e*), s	0.3	6.3	0.8	2.7	0.2	0.0	0.4	0.0
Phase Call Probability	0.97	1.00	1.00	1.00	0.97	1.00	1.00	1.00
Max Out Probability	0.00	0.01	0.17	0.84	0.00	1.00	0.02	1.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	109	405		351	822		107	338	274	202	558	
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1781	1791		1795	1767		1795	1885	1598	1810	1826	
Queue Service Time (*g s*), s	3.9	19.8		12.3	52.5		5.5	20.9	19.8	10.2	26.9	
Cycle Queue Clearance Time (*g c*), s	3.9	19.8		12.3	52.5		5.5	20.9	19.8	10.2	26.9	
Green Ratio (*g/C*)	0.49	0.42		0.57	0.49		0.25	0.19	0.19	0.31	0.23	
Capacity (*c*), veh/h	194	760		544	860		180	352	299	265	417	
Volume-to-Capacity Ratio (*X*)	0.559	0.534		0.645	0.955		0.593	0.959	0.917	0.763	1.336	
Back of Queue (*Q*), ft/ln (95 th percentile)	78	333		219	857		116	486	394	208	1171	
Back of Queue (*Q*), veh/ln (95 th percentile)	3.1	13.1		8.7	34.0		4.6	19.3	15.6	8.3	46.8	
Queue Storage Ratio (*RQ*) (95 th percentile)	1.72	0.20		0.80	0.37		2.59	0.69	2.54	1.04	0.50	
Uniform Delay (*d 1*), s/veh	26.7	25.2		16.7	29.0		37.0	47.4	46.9	33.8	45.4	
Incremental Delay (*d 2*), s/veh	2.5	0.6		1.7	19.6		3.1	37.1	31.4	4.5	167.0	
Initial Queue Delay (*d 3*), s/veh	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Control Delay (*d*), s/veh	29.2	25.8		18.3	48.6		40.1	84.5	78.4	38.4	212.3	
Level of Service (LOS)	C	C		B	D		D	F	E	D	F	
Approach Delay, s/veh / LOS	26.5	C		39.5	D		75.6	E		166.0	F	
Intersection Delay, s/veh / LOS	76.0						E					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS								
Bicycle LOS Score / LOS								

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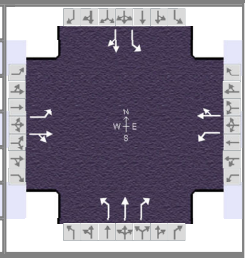
HCS Signalized Intersection Results Graphical Summary

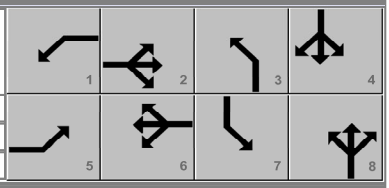
General Information				Intersection Information	
Agency	GPD Group			Duration, h	0.250
Analyst	Ryan Barco	Analysis Date	May 17, 2024	Area Type	Other
Jurisdiction	City of North Ridgeville	Time Period	PM Peak Hour	PHF	0.92
Urban Street	Lorain Road	Analysis Year	2045 'No-Build'	Analysis Period	1> 7:00
Intersection	Root Road	File Name	02 2045 PM No-Build Capacity Analysis Lorain &…		
Project Description	North Ridgeville Circle K				



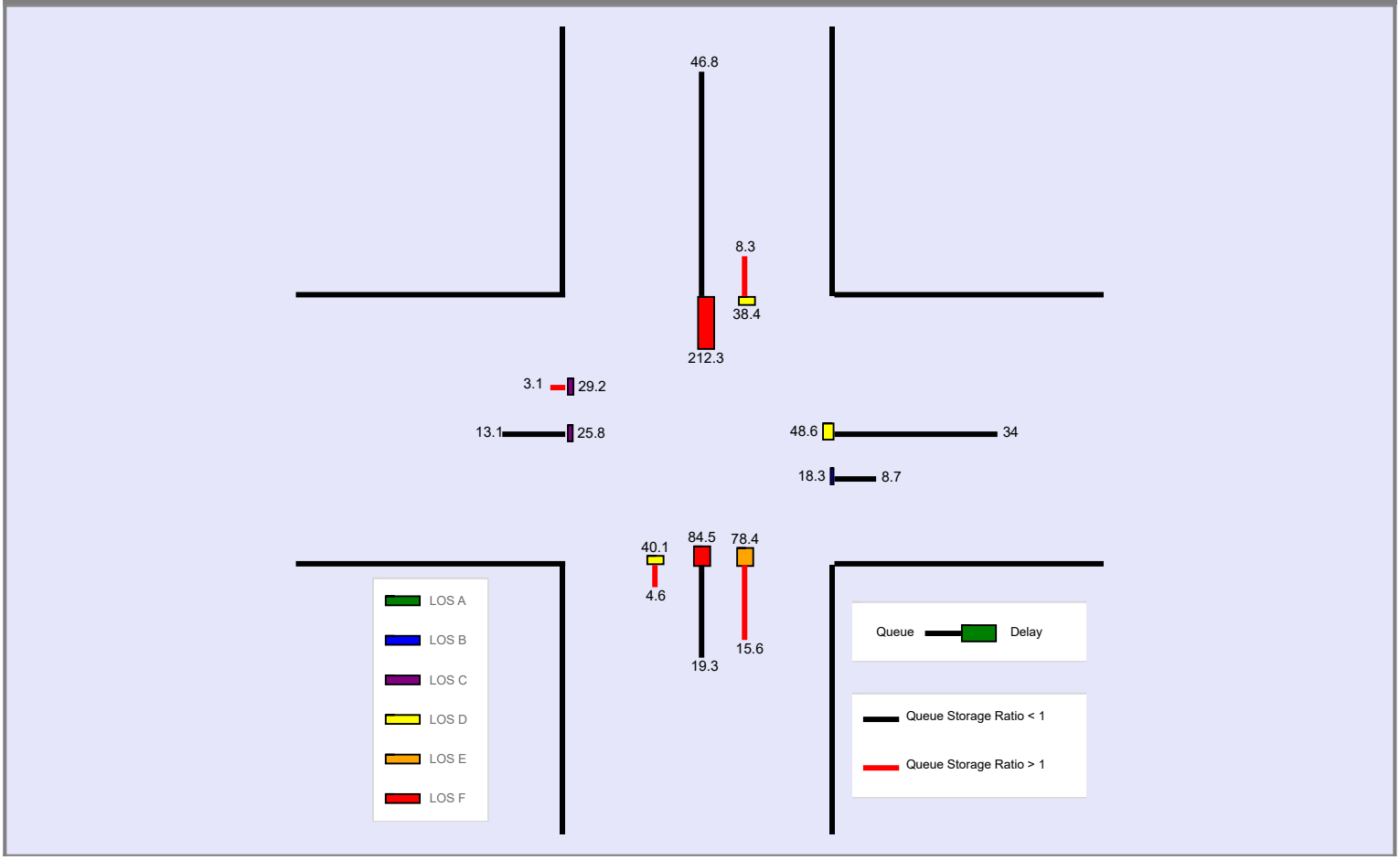
Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	100	281	92	323	476	280	98	311	252	186	398	115

Signal Information			
Cycle, s	117.6	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	7.8	3.3	49.9	7.8	0.9	22.0						
Yellow	4.0	4.0	4.0	4.0	4.0	4.0						
Red	0.0	0.0	1.0	0.0	0.0	1.0						



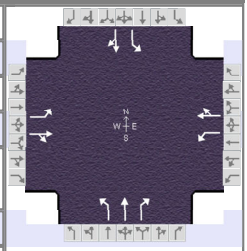
Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Back of Queue (*Q*), ft/ln (95 th percentile)	78	333		219	857		116	486	394	208	1171	
Back of Queue (*Q*), veh/ln (95 th percentile)	3.1	13.1		8.7	34.0		4.6	19.3	15.6	8.3	46.8	
Queue Storage Ratio (*RQ*) (95 th percentile)	1.72	0.20		0.80	0.37		2.59	0.69	2.54	1.04	0.50	
Control Delay (*d*), s/veh	29.2	25.8		18.3	48.6		40.1	84.5	78.4	38.4	212.3	
Level of Service (LOS)	C	C		B	D		D	F	E	D	F	
Approach Delay, s/veh / LOS	26.5	C		39.5	D		75.6	E		166.0	F	
Intersection Delay, s/veh / LOS	76.0						E					



OPENING YEAR 2025 'NO-BUILD OPTIMIZED' CONDITIONS

HCS Signalized Intersection Input Data

General Information				Intersection Information	
Agency	GPD Group			Duration, h	0.250
Analyst	Ryan Barco	Analysis Date	Jan 3, 2025	Area Type	Other
Jurisdiction	City of North Ridgeville	Time Period	AM Peak Hour	PHF	0.94
Urban Street	Lorain Road	Analysis Year	2025 'No-Build' Optimized	Analysis Period	1> 7:00
Intersection	Root Road	File Name	03 2025 AM No-Build Capacity Analysis Lorain &…		
Project Description	North Ridgeville Circle K				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	114	256	56	132	173	170	71	289	300	131	210	54

Signal Information			
Cycle, s	67.5	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

							1	2	3	4
Green	6.3	0.2	20.0	5.3	1.2	16.5	5	6	7	8
Yellow	4.0	0.0	4.0	4.0	0.0	4.0				
Red	0.0	0.0	1.0	0.0	0.0	1.0				

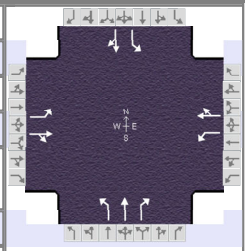
Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	114	256	56	132	173	170	71	289	300	131	210	54
Initial Queue (Q_b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s_o), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N_m), man/h		None			None			None			None	
Heavy Vehicles (P_{HV}), %	1	1		3	3		2	2	2	4	4	
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N_b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (*AT*)	3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (*I*)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (*W*), ft	12.0	12.0		12.0	12.0		12.0	12.0	12.0	12.0	12.0	
Turn Bay Length, ft	45	1700		275	2330		45	700	155	200	2320	
Grade (*Pg*), %		0			0			0			0	
Speed Limit, mi/h	35	35	35	35	35	35	35	35	35	35	35	35

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s	10.0	40.0	10.0	40.0	10.0	30.0	10.0	30.0
Yellow Change Interval (*Y*), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Red Clearance Interval (R_c), s	0.0	1.0	0.0	1.0	0.0	1.0	0.0	1.0
Minimum Green (G_{min}), s	7	20	7	20	7	10	7	10
Start-Up Lost Time (*lt*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (*e*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Passage (*PT*), s	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	Off	Min	Off	Min	Off	Off	Off	Off
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (*Walk*), s		0.0		0.0		0.0		0.0
Pedestrian Clearance Time (*PC*), s		0.0		0.0		0.0		0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0.0	No	25.0	0.0	No	25.0	0.0	No	25.0	0.0	No	25.0
Walkway / Crosswalk Width / Length, ft	9.0	12.0	0.0	9.0	12.0	0.0	9.0	12.0	0.0	9.0	12.0	0.0
Street Width / Island / Curb, ft	0.0	0	No	0.0	0	No	0.0	0	No	0.0	0	No
Width Outside / Bike Lane / Shoulder, ft	12.0	5.0	2.0	12.0	5.0	2.0	12.0	5.0	2.0	12.0	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50		No	0.50	

HCS Signalized Intersection Results Summary

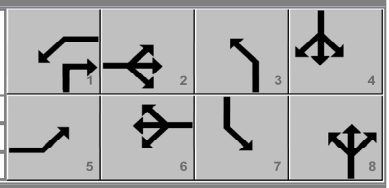
General Information				Intersection Information	
Agency	GPD Group			Duration, h	0.250
Analyst	Ryan Barco	Analysis Date	Jan 3, 2025	Area Type	Other
Jurisdiction	City of North Ridgeville	Time Period	AM Peak Hour	PHF	0.94
Urban Street	Lorain Road	Analysis Year	2025 'No-Build' Optimized	Analysis Period	1> 7:00
Intersection	Root Road	File Name	03 2025 AM No-Build Capacity Analysis Lorain &…		
Project Description	North Ridgeville Circle K				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	114	256	56	132	173	170	71	289	300	131	210	54

Signal Information			
Cycle, s	67.5	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	6.3	0.2	20.0	5.3	1.2	16.5
Yellow	4.0	0.0	4.0	4.0	0.0	4.0
Red	0.0	0.0	1.0	0.0	0.0	1.0



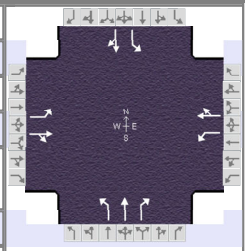
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	3	8	7	4
Case Number	1.1	4.0	1.1	4.0	1.1	3.0	1.1	4.0
Phase Duration, s	10.3	25.0	10.5	25.2	9.3	21.5	10.5	22.7
Change Period, ($Y+R_c$), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0
Max Allow Headway (*MAH*), s	4.1	4.1	4.1	4.1	4.1	4.2	4.1	4.2
Queue Clearance Time (g_s), s	5.0	12.6	5.5	14.9	4.0	13.2	5.8	11.4
Green Extension Time (g_e), s	0.1	2.7	0.1	2.7	0.1	3.3	0.1	3.4
Phase Call Probability	0.90	1.00	0.93	1.00	0.76	1.00	0.93	1.00
Max Out Probability	0.45	0.00	0.76	0.00	0.14	0.07	0.97	0.04

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	121	332		140	365		76	307	319	139	281	
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1795	1826		1767	1704		1781	1870	1585	1753	1775	
Queue Service Time (g_s), s	3.0	10.6		3.5	12.9		2.0	10.0	11.2	3.8	9.4	
Cycle Queue Clearance Time (g_c), s	3.0	10.6		3.5	12.9		2.0	10.0	11.2	3.8	9.4	
Green Ratio (*g/C*)	0.39	0.30		0.39	0.30		0.32	0.24	0.34	0.34	0.26	
Capacity (*c*), veh/h	354	541		422	510		350	458	541	377	466	
Volume-to-Capacity Ratio (*X*)	0.342	0.614		0.333	0.715		0.216	0.671	0.590	0.370	0.603	
Back of Queue (*Q*), ft/ln (95 th percentile)	51	193		60	219		36	195	176	68	174	
Back of Queue (*Q*), veh/ln (95 th percentile)	2.0	7.7		2.4	8.6		1.4	7.7	6.9	2.6	6.7	
Queue Storage Ratio (*RQ*) (95 th percentile)	1.14	0.11		0.22	0.09		0.80	0.28	1.13	0.34	0.07	
Uniform Delay (d_1), s/veh	15.3	20.4		14.5	21.1		17.0	23.0	18.4	16.8	21.8	
Incremental Delay (d_2), s/veh	0.6	1.1		0.5	1.9		0.3	1.7	1.0	0.6	1.3	
Initial Queue Delay (d_3), s/veh	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Control Delay (*d*), s/veh	15.9	21.6		15.0	23.0		17.3	24.8	19.4	17.4	23.1	
Level of Service (LOS)	B	C		B	C		B	C	B	B	C	
Approach Delay, s/veh / LOS	20.1	C		20.7	C		21.5	C		21.2	C	
Intersection Delay, s/veh / LOS	20.9						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS								
Bicycle LOS Score / LOS								

HCS Signalized Intersection Results Graphical Summary

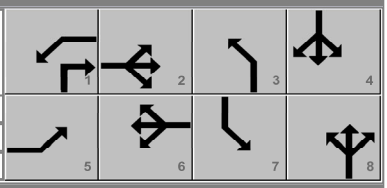
General Information				Intersection Information	
Agency	GPD Group			Duration, h	0.250
Analyst	Ryan Barco	Analysis Date	Jan 3, 2025	Area Type	Other
Jurisdiction	City of North Ridgeville	Time Period	AM Peak Hour	PHF	0.94
Urban Street	Lorain Road	Analysis Year	2025 'No-Build' Optimized	Analysis Period	1> 7:00
Intersection	Root Road	File Name	03 2025 AM No-Build Capacity Analysis Lorain &…		
Project Description	North Ridgeville Circle K				



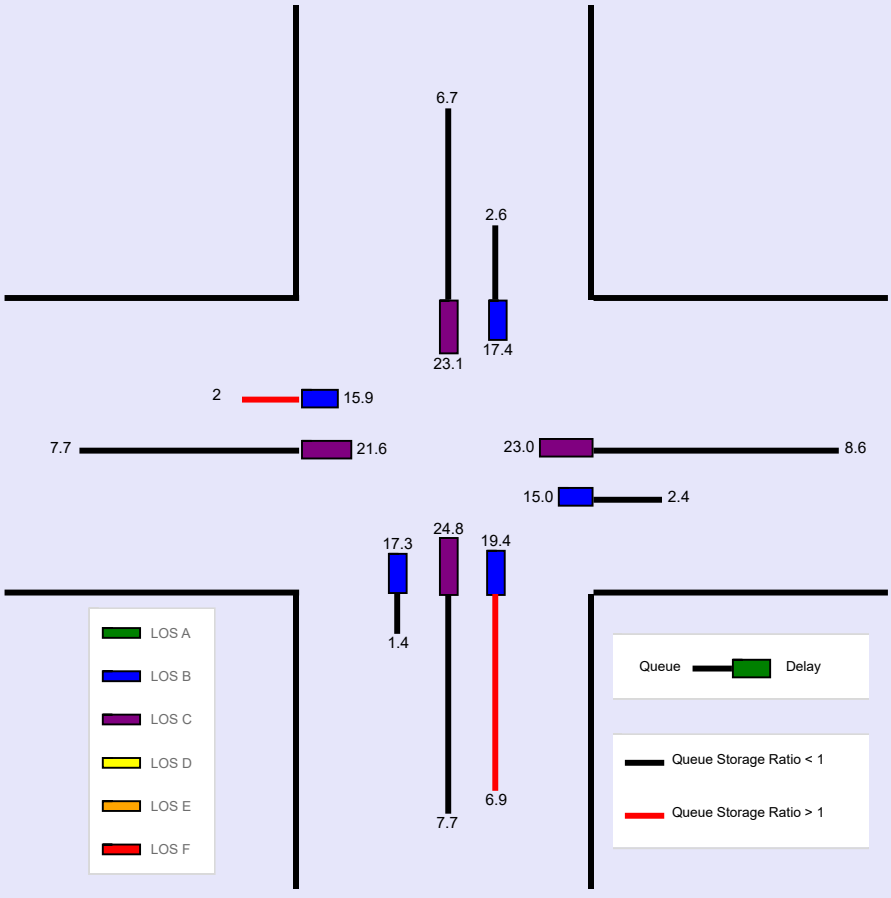
Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	114	256	56	132	173	170	71	289	300	131	210	54

Signal Information			
Cycle, s	67.5	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	6.3	0.2	20.0	5.3	1.2	16.5						
Yellow	4.0	0.0	4.0	4.0	0.0	4.0						
Red	0.0	0.0	1.0	0.0	0.0	1.0						

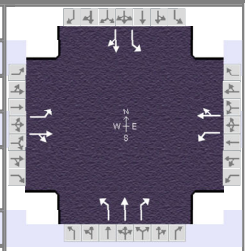


Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Back of Queue (*Q*), ft/ln (95 th percentile)	51	193		60	219		36	195	176	68	174	
Back of Queue (*Q*), veh/ln (95 th percentile)	2.0	7.7		2.4	8.6		1.4	7.7	6.9	2.6	6.7	
Queue Storage Ratio (*RQ*) (95 th percentile)	1.14	0.11		0.22	0.09		0.80	0.28	1.13	0.34	0.07	
Control Delay (*d*), s/veh	15.9	21.6		15.0	23.0		17.3	24.8	19.4	17.4	23.1	
Level of Service (LOS)	B	C		B	C		B	C	B	B	C	
Approach Delay, s/veh / LOS	20.1	C		20.7	C		21.5	C		21.2	C	
Intersection Delay, s/veh / LOS	20.9	C										



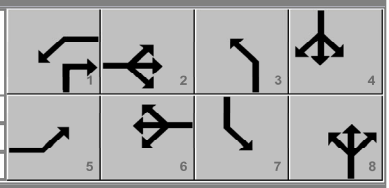
HCS Signalized Intersection Input Data

General Information				Intersection Information	
Agency	GPD Group			Duration, h	0.250
Analyst	Ryan Barco	Analysis Date	Jan 3, 2025	Area Type	Other
Jurisdiction	City of North Ridgeville	Time Period	PM Peak Hour	PHF	0.92
Urban Street	Lorain Road	Analysis Year	2025 'No-Build' Optimized	Analysis Period	1> 7:00
Intersection	Root Road	File Name	04 2025 PM No-Build Capacity Analysis Lorain &…		
Project Description	North Ridgeville Circle K				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	84	234	77	270	397	233	82	260	210	156	332	96

Signal Information												
Cycle, s	106.7	Reference Phase	2									
Offset, s	0	Reference Point	End									
Uncoordinated	Yes	Simult. Gap E/W	On									
Force Mode	Fixed	Simult. Gap N/S	On									
				Green	6.5	2.0	38.8	6.5	2.6	28.3		
				Yellow	4.0	4.0	4.0	4.0	0.0	4.0		
				Red	0.0	0.0	1.0	0.0	0.0	1.0		



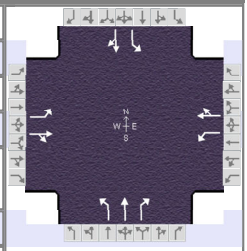
Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	84	234	77	270	397	233	82	260	210	156	332	96
Initial Queue (Q_b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s_o), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N_m), man/h		None			None			None			None	
Heavy Vehicles (P_{HV}), %	2	2		1	1		1	1	1	0	0	
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N_b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (*AT*)	3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (*I*)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (*W*), ft	12.0	12.0		12.0	12.0		12.0	12.0	12.0	12.0	12.0	
Turn Bay Length, ft	45	1700		275	2330		45	700	155	200	2320	
Grade (*Pg*), %		0			0			0			0	
Speed Limit, mi/h	35	35	35	35	35	35	35	35	35	35	35	35

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s	13.0	53.0	13.0	53.0	10.0	38.0	10.0	38.0
Yellow Change Interval (*Y*), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Red Clearance Interval (R_c), s	0.0	1.0	0.0	1.0	0.0	1.0	0.0	1.0
Minimum Green (G_{min}), s	7	20	7	20	7	10	7	10
Start-Up Lost Time (*lt*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (*e*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Passage (*PT*), s	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	Off	Min	Off	Min	Off	Off	Off	Off
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (*Walk*), s		0.0		0.0		0.0		0.0
Pedestrian Clearance Time (*PC*), s		0.0		0.0		0.0		0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0.0	No	25.0	0.0	No	25.0	0.0	No	25.0	0.0	No	25.0
Walkway / Crosswalk Width / Length, ft	9.0	12.0	0.0	9.0	12.0	0.0	9.0	12.0	0.0	9.0	12.0	0.0
Street Width / Island / Curb, ft	0.0	0	No	0.0	0	No	0.0	0	No	0.0	0	No
Width Outside / Bike Lane / Shoulder, ft	12.0	5.0	2.0	12.0	5.0	2.0	12.0	5.0	2.0	12.0	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50		No	0.50	

HCS Signalized Intersection Results Summary

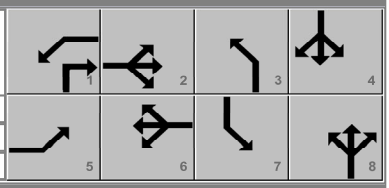
General Information				Intersection Information	
Agency	GPD Group			Duration, h	0.250
Analyst	Ryan Barco	Analysis Date	Jan 3, 2025	Area Type	Other
Jurisdiction	City of North Ridgeville	Time Period	PM Peak Hour	PHF	0.92
Urban Street	Lorain Road	Analysis Year	2025 'No-Build' Optimized	Analysis Period	1> 7:00
Intersection	Root Road	File Name	04 2025 PM No-Build Capacity Analysis Lorain &…		
Project Description	North Ridgeville Circle K				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	84	234	77	270	397	233	82	260	210	156	332	96

Signal Information			
Cycle, s	106.7	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	6.5	2.0	38.8	6.5	2.6	28.3						
Yellow	4.0	4.0	4.0	4.0	0.0	4.0						
Red	0.0	0.0	1.0	0.0	0.0	1.0						



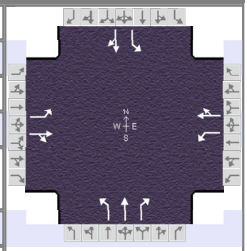
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	3	8	7	4
Case Number	1.1	4.0	1.1	4.0	1.1	3.0	1.1	4.0
Phase Duration, s	10.5	43.8	16.5	49.8	10.5	33.3	13.1	35.9
Change Period, ($Y+R_c$), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0
Max Allow Headway (*MAH*), s	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
Queue Clearance Time (g_s), s	5.3	17.8	12.4	41.2	5.8	15.8	9.1	27.9
Green Extension Time (g_e), s	0.1	4.7	0.1	3.6	0.1	3.9	0.0	2.9
Phase Call Probability	0.93	1.00	1.00	1.00	0.93	1.00	0.99	1.00
Max Out Probability	0.03	0.00	1.00	0.26	0.89	0.03	1.00	0.31

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	91	338		293	685		89	283	228	170	465	
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1781	1791		1795	1768		1795	1885	1598	1810	1826	
Queue Service Time (g_s), s	3.3	15.8		10.4	39.2		3.8	13.8	11.0	7.1	25.9	
Cycle Queue Clearance Time (g_c), s	3.3	15.8		10.4	39.2		3.8	13.8	11.0	7.1	25.9	
Green Ratio (*g/C*)	0.43	0.36		0.50	0.42		0.33	0.27	0.38	0.36	0.29	
Capacity (*c*), veh/h	202	651		505	742		203	500	611	373	529	
Volume-to-Capacity Ratio (*X*)	0.451	0.519		0.581	0.923		0.439	0.565	0.374	0.455	0.880	
Back of Queue (*Q*), ft/ln (95 th percentile)	65	278		195	646		76	264	186	138	470	
Back of Queue (*Q*), veh/ln (95 th percentile)	2.6	10.9		7.8	25.7		3.0	10.5	7.4	5.5	18.8	
Queue Storage Ratio (*RQ*) (95 th percentile)	1.45	0.16		0.71	0.28		1.68	0.38	1.20	0.69	0.20	
Uniform Delay (d_1), s/veh	25.2	26.7		18.0	29.4		28.9	33.9	23.8	25.6	36.2	
Incremental Delay (d_2), s/veh	1.6	0.6		1.6	13.7		1.5	1.0	0.4	0.9	11.4	
Initial Queue Delay (d_3), s/veh	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Control Delay (*d*), s/veh	26.7	27.3		19.6	43.0		30.3	34.9	24.1	26.4	47.6	
Level of Service (LOS)	C	C		B	D		C	C	C	C	D	
Approach Delay, s/veh / LOS	27.2	C		36.0	D		30.2	C		41.9	D	
Intersection Delay, s/veh / LOS	34.7						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS								
Bicycle LOS Score / LOS								

HCS Signalized Intersection Results Graphical Summary

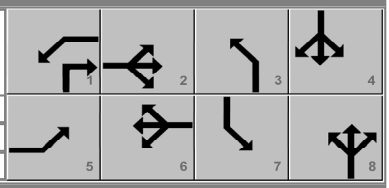
General Information				Intersection Information	
Agency	GPD Group			Duration, h	0.250
Analyst	Ryan Barco	Analysis Date	Jan 3, 2025	Area Type	Other
Jurisdiction	City of North Ridgeville	Time Period	PM Peak Hour	PHF	0.92
Urban Street	Lorain Road	Analysis Year	2025 'No-Build' Optimized	Analysis Period	1> 7:00
Intersection	Root Road	File Name	04 2025 PM No-Build Capacity Analysis Lorain &…		
Project Description	North Ridgeville Circle K				



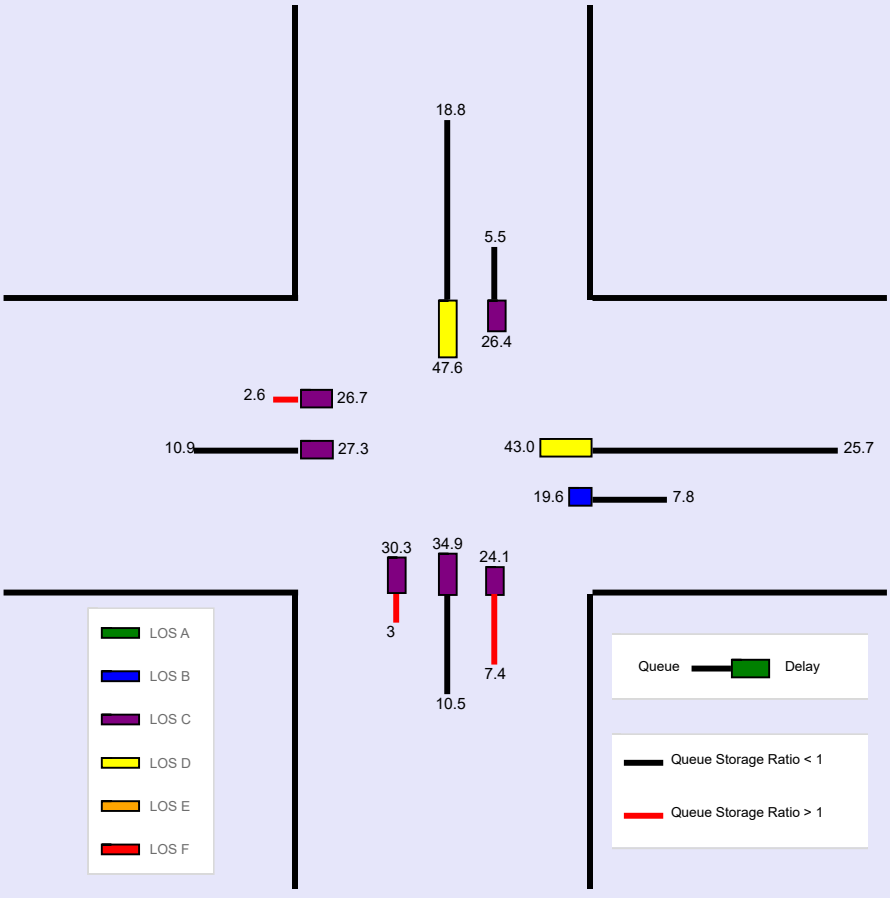
Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	84	234	77	270	397	233	82	260	210	156	332	96

Signal Information			
Cycle, s	106.7	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	6.5	2.0	38.8	6.5	2.6	28.3	
Yellow	4.0	4.0	4.0	4.0	0.0	4.0	
Red	0.0	0.0	1.0	0.0	0.0	1.0	



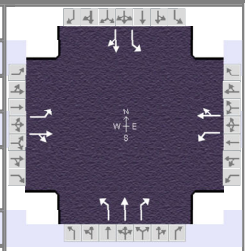
Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Back of Queue (*Q*), ft/ln (95 th percentile)	65	278		195	646		76	264	186	138	470	
Back of Queue (*Q*), veh/ln (95 th percentile)	2.6	10.9		7.8	25.7		3.0	10.5	7.4	5.5	18.8	
Queue Storage Ratio (*RQ*) (95 th percentile)	1.45	0.16		0.71	0.28		1.68	0.38	1.20	0.69	0.20	
Control Delay (*d*), s/veh	26.7	27.3		19.6	43.0		30.3	34.9	24.1	26.4	47.6	
Level of Service (LOS)	C	C		B	D		C	C	C	C	D	
Approach Delay, s/veh / LOS	27.2	C		36.0	D		30.2	C		41.9	D	
Intersection Delay, s/veh / LOS	34.7						C					



DESIGN YEAR 2045 'NO-BUILD OPTIMIZED' CONDITIONS

HCS Signalized Intersection Input Data

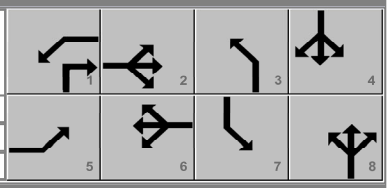
General Information				Intersection Information	
Agency	GPD Group			Duration, h	0.250
Analyst	Ryan Barco	Analysis Date	May 17, 2024	Area Type	Other
Jurisdiction	City of North Ridgeville	Time Period	AM Peak Hour	PHF	0.94
Urban Street	Lorain Road	Analysis Year	2045 'No-Build' Optimized	Analysis Period	1> 7:00
Intersection	Root Road	File Name	03 2045 AM No-Build Capacity Analysis Lorain &…		
Project Description	North Ridgeville Circle K				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	137	306	67	159	207	203	85	346	359	157	252	64

Signal Information			
Cycle, s	76.1	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	6.7	0.2	23.3	6.0	1.0	21.0
Yellow	4.0	0.0	4.0	4.0	0.0	4.0
Red	0.0	0.0	1.0	0.0	0.0	1.0



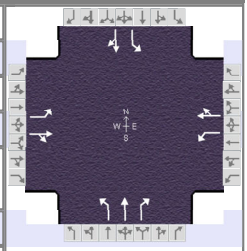
Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	137	306	67	159	207	203	85	346	359	157	252	64
Initial Queue (Q_b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s_o), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N_m), man/h		None			None			None			None	
Heavy Vehicles (P_{HV}), %	1	1		3	3		2	2	2	4	4	
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N_b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (*AT*)	3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (*I*)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (*W*), ft	12.0	12.0		12.0	12.0		12.0	12.0	12.0	12.0	12.0	
Turn Bay Length, ft	45	1700		275	2330		45	700	155	200	2320	
Grade (*Pg*), %		0			0			0			0	
Speed Limit, mi/h	35	35	35	35	35	35	35	35	35	35	35	35

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s	10.0	40.0	10.0	40.0	10.0	30.0	10.0	30.0
Yellow Change Interval (*Y*), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Red Clearance Interval (R_c), s	0.0	1.0	0.0	1.0	0.0	1.0	0.0	1.0
Minimum Green (G_{min}), s	7	20	7	20	7	10	7	10
Start-Up Lost Time (*lt*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (*e*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Passage (*PT*), s	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	Off	Min	Off	Min	Off	Off	Off	Off
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (*Walk*), s		0.0		0.0		0.0		0.0
Pedestrian Clearance Time (*PC*), s		0.0		0.0		0.0		0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0.0	No	25.0	0.0	No	25.0	0.0	No	25.0	0.0	No	25.0
Walkway / Crosswalk Width / Length, ft	9.0	12.0	0.0	9.0	12.0	0.0	9.0	12.0	0.0	9.0	12.0	0.0
Street Width / Island / Curb, ft	0.0	0	No	0.0	0	No	0.0	0	No	0.0	0	No
Width Outside / Bike Lane / Shoulder, ft	12.0	5.0	2.0	12.0	5.0	2.0	12.0	5.0	2.0	12.0	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50		No	0.50	

HCS Signalized Intersection Results Summary

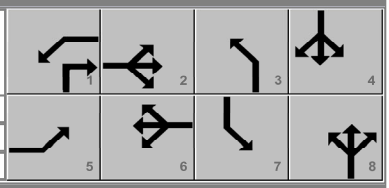
General Information				Intersection Information	
Agency	GPD Group			Duration, h	0.250
Analyst	Ryan Barco	Analysis Date	May 17, 2024	Area Type	Other
Jurisdiction	City of North Ridgeville	Time Period	AM Peak Hour	PHF	0.94
Urban Street	Lorain Road	Analysis Year	2045 'No-Build' Optimized	Analysis Period	1> 7:00
Intersection	Root Road	File Name	03 2045 AM No-Build Capacity Analysis Lorain &…		
Project Description	North Ridgeville Circle K				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	137	306	67	159	207	203	85	346	359	157	252	64

Signal Information			
Cycle, s	76.1	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	6.7	0.2	23.3	6.0	1.0	21.0
Yellow	4.0	0.0	4.0	4.0	0.0	4.0
Red	0.0	0.0	1.0	0.0	0.0	1.0



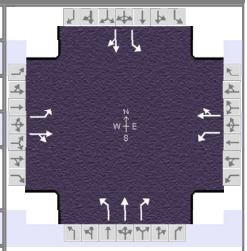
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	3	8	7	4
Case Number	1.1	4.0	1.1	4.0	1.1	3.0	1.1	4.0
Phase Duration, s	10.7	28.3	10.8	28.4	10.0	26.0	11.0	27.1
Change Period, ($Y+R_c$), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0
Max Allow Headway (*MAH*), s	4.1	4.1	4.1	4.1	4.1	4.2	4.1	4.2
Queue Clearance Time (g_s), s	6.1	16.7	6.9	20.2	4.6	17.3	7.1	14.6
Green Extension Time (g_e), s	0.1	3.3	0.1	3.2	0.1	3.7	0.1	4.0
Phase Call Probability	0.95	1.00	0.97	1.00	0.85	1.00	0.97	1.00
Max Out Probability	1.00	0.01	1.00	0.03	0.29	0.23	1.00	0.15

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	146	397		169	436		90	368	382	167	336	
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1795	1826		1767	1704		1781	1870	1585	1753	1776	
Queue Service Time (g_s), s	4.1	14.7		4.9	18.2		2.6	13.5	15.3	5.1	12.6	
Cycle Queue Clearance Time (g_c), s	4.1	14.7		4.9	18.2		2.6	13.5	15.3	5.1	12.6	
Green Ratio (*g/C*)	0.39	0.31		0.40	0.31		0.36	0.28	0.37	0.37	0.29	
Capacity (*c*), veh/h	294	558		364	524		337	517	580	355	515	
Volume-to-Capacity Ratio (*X*)	0.496	0.711		0.465	0.832		0.268	0.712	0.658	0.471	0.653	
Back of Queue (*Q*), ft/ln (95 th percentile)	75	257		88	300		48	250	233	92	229	
Back of Queue (*Q*), veh/ln (95 th percentile)	3.0	10.2		3.4	11.7		1.9	9.8	9.2	3.6	8.9	
Queue Storage Ratio (*RQ*) (95 th percentile)	1.66	0.15		0.32	0.13		1.06	0.36	1.51	0.46	0.10	
Uniform Delay (d_1), s/veh	18.3	23.5		17.1	24.5		18.0	24.8	20.2	18.2	23.7	
Incremental Delay (d_2), s/veh	1.3	1.7		0.9	3.5		0.4	1.8	1.3	1.0	1.4	
Initial Queue Delay (d_3), s/veh	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Control Delay (*d*), s/veh	19.6	25.2		18.0	28.1		18.5	26.7	21.4	19.2	25.1	
Level of Service (LOS)	B	C		B	C		B	C	C	B	C	
Approach Delay, s/veh / LOS	23.7	C		25.3	C		23.4	C		23.1	C	
Intersection Delay, s/veh / LOS	23.9						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS								
Bicycle LOS Score / LOS								

HCS Signalized Intersection Results Graphical Summary

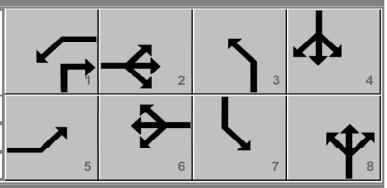
General Information				Intersection Information	
Agency	GPD Group			Duration, h	0.250
Analyst	Ryan Barco	Analysis Date	May 17, 2024	Area Type	Other
Jurisdiction	City of North Ridgeville	Time Period	AM Peak Hour	PHF	0.94
Urban Street	Lorain Road	Analysis Year	2045 'No-Build' Optimized	Analysis Period	1> 7:00
Intersection	Root Road	File Name	03 2045 AM No-Build Capacity Analysis Lorain &…		
Project Description	North Ridgeville Circle K				



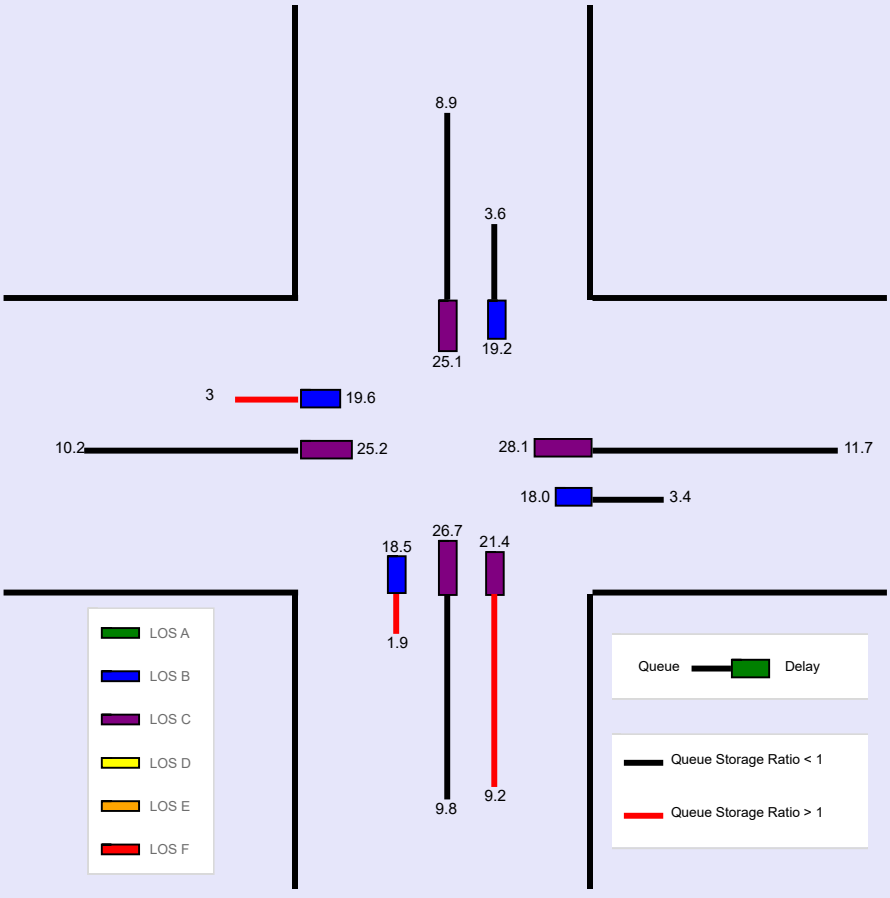
Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	137	306	67	159	207	203	85	346	359	157	252	64

Signal Information			
Cycle, s	76.1	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	6.7	0.2	23.3	6.0	1.0	21.0						
Yellow	4.0	0.0	4.0	4.0	0.0	4.0						
Red	0.0	0.0	1.0	0.0	0.0	1.0						

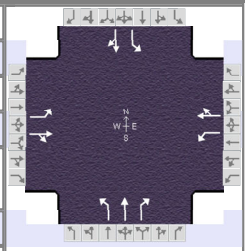


Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Back of Queue (*Q*), ft/ln (95 th percentile)	75	257		88	300		48	250	233	92	229	
Back of Queue (*Q*), veh/ln (95 th percentile)	3.0	10.2		3.4	11.7		1.9	9.8	9.2	3.6	8.9	
Queue Storage Ratio (*RQ*) (95 th percentile)	1.66	0.15		0.32	0.13		1.06	0.36	1.51	0.46	0.10	
Control Delay (*d*), s/veh	19.6	25.2		18.0	28.1		18.5	26.7	21.4	19.2	25.1	
Level of Service (LOS)	B	C		B	C		B	C	C	B	C	
Approach Delay, s/veh / LOS	23.7	C		25.3	C		23.4	C		23.1	C	
Intersection Delay, s/veh / LOS	23.9	C										



HCS Signalized Intersection Input Data

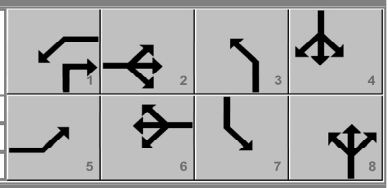
General Information				Intersection Information	
Agency	GPD Group			Duration, h	0.250
Analyst	Ryan Barco	Analysis Date	May 17, 2024	Area Type	Other
Jurisdiction	City of North Ridgeville	Time Period	PM Peak Hour	PHF	0.92
Urban Street	Lorain Road	Analysis Year	2045 'No-Build' Optimized	Analysis Period	1> 7:00
Intersection	Root Road	File Name	04 2045 PM No-Build Capacity Analysis Lorain &…		
Project Description	North Ridgeville Circle K				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	100	281	92	323	476	280	98	311	252	186	398	115

Signal Information			
Cycle, s	122.8	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	6.8	2.2	46.8	7.0	3.0	35.0						
Yellow	4.0	4.0	4.0	4.0	0.0	4.0						
Red	0.0	0.0	1.0	0.0	0.0	1.0						



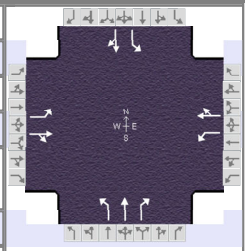
Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	100	281	92	323	476	280	98	311	252	186	398	115
Initial Queue (Q_b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s_o), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N_m), man/h		None			None			None			None	
Heavy Vehicles (P_{HV}), %	2	2		1	1		1	1	1	0	0	
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N_b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (*AT*)	3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (*I*)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (*W*), ft	12.0	12.0		12.0	12.0		12.0	12.0	12.0	12.0	12.0	
Turn Bay Length, ft	45	1700		275	2330		45	700	155	200	2320	
Grade (*Pg*), %		0			0			0			0	
Speed Limit, mi/h	35	35	35	35	35	35	35	35	35	35	35	35

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s	13.0	53.0	13.0	53.0	10.0	38.0	10.0	38.0
Yellow Change Interval (*Y*), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Red Clearance Interval (R_c), s	0.0	1.0	0.0	1.0	0.0	1.0	0.0	1.0
Minimum Green (G_{min}), s	7	20	7	20	7	10	7	10
Start-Up Lost Time (*lt*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (*e*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Passage (*PT*), s	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	Off	Min	Off	Min	Off	Off	Off	Off
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (*Walk*), s		0.0		0.0		0.0		0.0
Pedestrian Clearance Time (*PC*), s		0.0		0.0		0.0		0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0.0	No	25.0	0.0	No	25.0	0.0	No	25.0	0.0	No	25.0
Walkway / Crosswalk Width / Length, ft	9.0	12.0	0.0	9.0	12.0	0.0	9.0	12.0	0.0	9.0	12.0	0.0
Street Width / Island / Curb, ft	0.0	0	No	0.0	0	No	0.0	0	No	0.0	0	No
Width Outside / Bike Lane / Shoulder, ft	12.0	5.0	2.0	12.0	5.0	2.0	12.0	5.0	2.0	12.0	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50		No	0.50	

HCS Signalized Intersection Results Summary

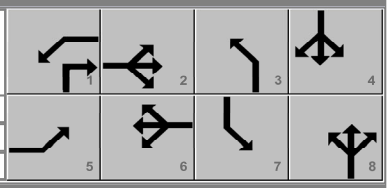
General Information				Intersection Information	
Agency	GPD Group			Duration, h	0.250
Analyst	Ryan Barco	Analysis Date	May 17, 2024	Area Type	Other
Jurisdiction	City of North Ridgeville	Time Period	PM Peak Hour	PHF	0.92
Urban Street	Lorain Road	Analysis Year	2045 'No-Build' Optimized	Analysis Period	1> 7:00
Intersection	Root Road	File Name	04 2045 PM No-Build Capacity Analysis Lorain &…		
Project Description	North Ridgeville Circle K				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	100	281	92	323	476	280	98	311	252	186	398	115

Signal Information			
Cycle, s	122.8	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	6.8	2.2	46.8	7.0	3.0	35.0	
Yellow	4.0	4.0	4.0	4.0	0.0	4.0	
Red	0.0	0.0	1.0	0.0	0.0	1.0	



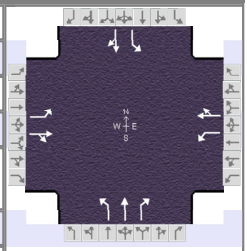
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	3	8	7	4
Case Number	1.1	4.0	1.1	4.0	1.1	3.0	1.1	4.0
Phase Duration, s	10.8	51.8	17.0	58.0	11.0	40.0	14.0	43.0
Change Period, ($Y+R_c$), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0
Max Allow Headway (*MAH*), s	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
Queue Clearance Time (g_s), s	6.5	24.2	15.0	55.0	7.1	21.2	11.7	39.3
Green Extension Time (g_e), s	0.1	6.1	0.0	0.0	0.1	4.5	0.0	0.0
Phase Call Probability	0.98	1.00	1.00	1.00	0.97	1.00	1.00	1.00
Max Out Probability	0.11	0.04	1.00	1.00	1.00	0.14	1.00	1.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	109	405		351	822		107	338	274	202	558	
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1781	1791		1795	1767		1795	1885	1598	1810	1826	
Queue Service Time (g_s), s	4.5	22.2		13.0	53.0		5.1	19.2	15.5	9.7	37.3	
Cycle Queue Clearance Time (g_c), s	4.5	22.2		13.0	53.0		5.1	19.2	15.5	9.7	37.3	
Green Ratio (*g/C*)	0.44	0.38		0.50	0.43		0.34	0.28	0.39	0.37	0.31	
Capacity (*c*), veh/h	158	683		446	763		161	537	624	342	565	
Volume-to-Capacity Ratio (*X*)	0.689	0.594		0.786	1.077		0.663	0.630	0.439	0.591	0.987	
Back of Queue (*Q*), ft/ln (95 th percentile)	96	373		290	1149		110	353	250	196	737	
Back of Queue (*Q*), veh/ln (95 th percentile)	3.8	14.7		11.5	45.6		4.4	14.0	9.9	7.8	29.5	
Queue Storage Ratio (*RQ*) (95 th percentile)	2.12	0.22		1.06	0.49		2.44	0.50	1.61	0.98	0.32	
Uniform Delay (d_1), s/veh	29.7	30.4		24.9	34.9		33.3	38.3	27.5	29.1	42.2	
Incremental Delay (d_2), s/veh	5.3	1.0		9.0	55.4		5.3	1.9	0.5	2.7	34.3	
Initial Queue Delay (d_3), s/veh	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Control Delay (*d*), s/veh	34.9	31.4		33.9	90.3		38.5	40.2	28.0	31.8	76.5	
Level of Service (LOS)	C	C		C	F		D	D	C	C	E	
Approach Delay, s/veh / LOS	32.1	C		73.5	E		35.3	D		64.6	E	
Intersection Delay, s/veh / LOS	56.0						E					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS								
Bicycle LOS Score / LOS								

HCS Signalized Intersection Results Graphical Summary

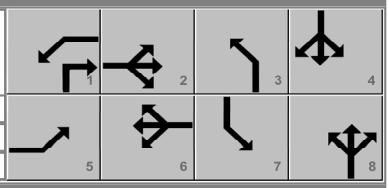
General Information				Intersection Information	
Agency	GPD Group			Duration, h	0.250
Analyst	Ryan Barco	Analysis Date	May 17, 2024	Area Type	Other
Jurisdiction	City of North Ridgeville	Time Period	PM Peak Hour	PHF	0.92
Urban Street	Lorain Road	Analysis Year	2045 'No-Build' Optimized	Analysis Period	1> 7:00
Intersection	Root Road	File Name	04 2045 PM No-Build Capacity Analysis Lorain &…		
Project Description	North Ridgeville Circle K				



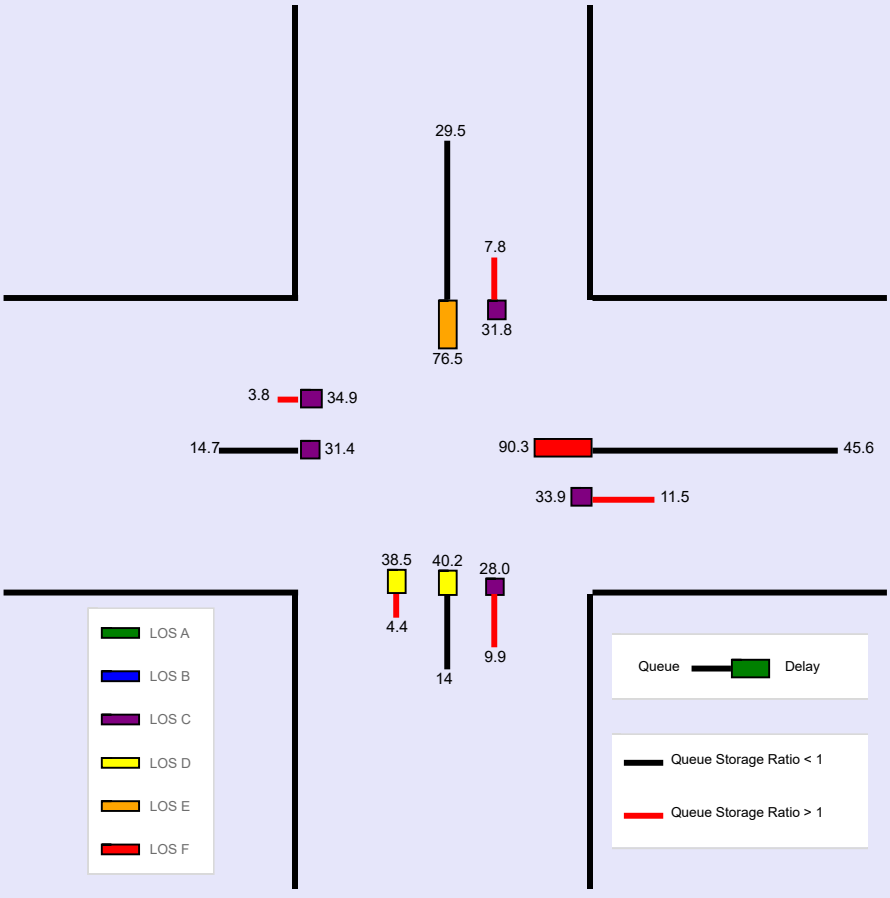
Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	100	281	92	323	476	280	98	311	252	186	398	115

Signal Information			
Cycle, s	122.8	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	6.8	2.2	46.8	7.0	3.0	35.0	
Yellow	4.0	4.0	4.0	4.0	0.0	4.0	
Red	0.0	0.0	1.0	0.0	0.0	1.0	



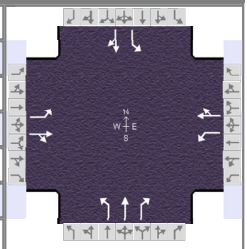
Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Back of Queue (*Q*), ft/ln (95 th percentile)	96	373		290	1149		110	353	250	196	737	
Back of Queue (*Q*), veh/ln (95 th percentile)	3.8	14.7		11.5	45.6		4.4	14.0	9.9	7.8	29.5	
Queue Storage Ratio (*RQ*) (95 th percentile)	2.12	0.22		1.06	0.49		2.44	0.50	1.61	0.98	0.32	
Control Delay (*d*), s/veh	34.9	31.4		33.9	90.3		38.5	40.2	28.0	31.8	76.5	
Level of Service (LOS)	C	C		C	F		D	D	C	C	E	
Approach Delay, s/veh / LOS	32.1	C		73.5	E		35.3	D		64.6	E	
Intersection Delay, s/veh / LOS	56.0						E					



OPENING YEAR 2025 'BUILD' CONDITIONS

HCS Signalized Intersection Input Data

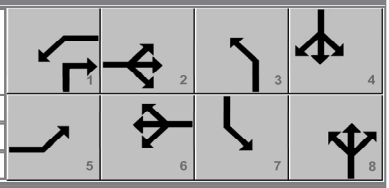
General Information				Intersection Information	
Agency	GPD Group			Duration, h	0.250
Analyst	Ryan Barco	Analysis Date	Jan 3, 2025	Area Type	Other
Jurisdiction	City of North Ridgeville	Time Period	AM Peak Hour	PHF	0.94
Urban Street	Lorain Road	Analysis Year	2025 'Build'	Analysis Period	1> 7:00
Intersection	Root Road	File Name	01 2025 AM Build Capacity Analysis Lorain & Roo…		
Project Description	North Ridgeville Circle K				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	114	261	56	157	177	170	72	295	300	154	193	54

Signal Information			
Cycle, s	67.9	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	6.3	0.4	20.0	5.4	1.3	16.5						
Yellow	4.0	0.0	4.0	4.0	0.0	4.0						
Red	0.0	0.0	1.0	0.0	0.0	1.0						



Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	114	261	56	157	177	170	72	295	300	154	193	54
Initial Queue (Q_b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s_o), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N_m), man/h		None			None			None			None	
Heavy Vehicles (P_{HV}), %	1	1		3	3		2	2	2	4	4	
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N_b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (*AT*)	3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (*I*)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (*W*), ft	12.0	12.0		12.0	12.0		12.0	12.0	12.0	12.0	12.0	
Turn Bay Length, ft	45	1700		275	2330		100	700	155	200	2320	
Grade (*Pg*), %		0			0			0			0	
Speed Limit, mi/h	35	35	35	35	35	35	35	35	35	35	35	35

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s	10.0	40.0	10.0	40.0	10.0	30.0	10.0	30.0
Yellow Change Interval (*Y*), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Red Clearance Interval (R_c), s	0.0	1.0	0.0	1.0	0.0	1.0	0.0	1.0
Minimum Green (G_{min}), s	7	20	7	20	7	10	7	10
Start-Up Lost Time (*lt*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (*e*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Passage (*PT*), s	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	Off	Min	Off	Min	Off	Off	Off	Off
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (*Walk*), s		0.0		0.0		0.0		0.0
Pedestrian Clearance Time (*PC*), s		0.0		0.0		0.0		0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0.0	No	25.0	0.0	No	25.0	0.0	No	25.0	0.0	No	25.0
Walkway / Crosswalk Width / Length, ft	9.0	12.0	0.0	9.0	12.0	0.0	9.0	12.0	0.0	9.0	12.0	0.0
Street Width / Island / Curb, ft	0.0	0	No	0.0	0	No	0.0	0	No	0.0	0	No
Width Outside / Bike Lane / Shoulder, ft	12.0	5.0	2.0	12.0	5.0	2.0	12.0	5.0	2.0	12.0	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50		No	0.50	

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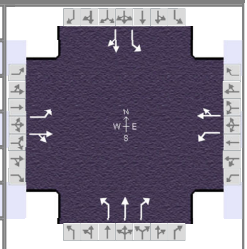
HCS Signalized Intersection Results Summary

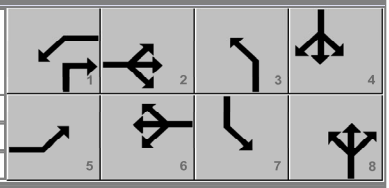
General Information				Intersection Information	
Agency	GPD Group			Duration, h	0.250
Analyst	Ryan Barco	Analysis Date	Jan 3, 2025	Area Type	Other
Jurisdiction	City of North Ridgeville	Time Period	AM Peak Hour	PHF	0.94
Urban Street	Lorain Road	Analysis Year	2025 'Build'	Analysis Period	1> 7:00
Intersection	Root Road	File Name	01 2025 AM Build Capacity Analysis Lorain & Roo…		
Project Description	North Ridgeville Circle K				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	114	261	56	157	177	170	72	295	300	154	193	54

Signal Information			
Cycle, s	67.9	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	6.3	0.4	20.0	5.4	1.3	16.5	
Yellow	4.0	0.0	4.0	4.0	0.0	4.0	
Red	0.0	0.0	1.0	0.0	0.0	1.0	



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	3	8	7	4
Case Number	1.1	4.0	1.1	4.0	1.1	3.0	1.1	4.0
Phase Duration, s	10.3	25.0	10.7	25.4	9.4	21.5	10.7	22.9
Change Period, (*Y+R c*), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0
Max Allow Headway (*MAH*), s	4.1	4.1	4.1	4.1	4.1	4.2	4.1	4.2
Queue Clearance Time (*g s*), s	5.0	12.8	6.3	15.1	4.1	13.3	6.6	10.7
Green Extension Time (*g e*), s	0.1	2.8	0.2	2.7	0.1	3.3	0.1	3.4
Phase Call Probability	0.90	1.00	0.96	1.00	0.76	1.00	0.95	1.00
Max Out Probability	0.47	0.00	1.00	0.00	0.15	0.06	1.00	0.04

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	121	337		167	369		77	314	319	164	263	
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1795	1827		1767	1705		1781	1870	1585	1753	1771	
Queue Service Time (*g s*), s	3.0	10.8		4.3	13.1		2.1	10.4	11.3	4.6	8.7	
Cycle Queue Clearance Time (*g c*), s	3.0	10.8		4.3	13.1		2.1	10.4	11.3	4.6	8.7	
Green Ratio (*g/C*)	0.39	0.29		0.39	0.30		0.32	0.24	0.34	0.34	0.26	
Capacity (*c*), veh/h	352	538		420	512		364	455	542	374	466	
Volume-to-Capacity Ratio (*X*)	0.345	0.627		0.398	0.720		0.210	0.689	0.589	0.438	0.564	
Back of Queue (*Q*), ft/ln (95 th percentile)	52	198		74	223		36	201	177	82	161	
Back of Queue (*Q*), veh/ln (95 th percentile)	2.1	7.8		2.9	8.7		1.4	7.9	7.0	3.2	6.2	
Queue Storage Ratio (*RQ*) (95 th percentile)	1.16	0.12		0.27	0.10		0.37	0.29	1.14	0.41	0.07	
Uniform Delay (*d 1*), s/veh	15.5	20.7		14.8	21.2		17.0	23.4	18.4	17.2	21.7	
Incremental Delay (*d 2*), s/veh	0.6	1.2		0.6	1.9		0.3	1.9	1.0	0.8	1.1	
Initial Queue Delay (*d 3*), s/veh	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Control Delay (*d*), s/veh	16.1	21.9		15.5	23.1		17.3	25.2	19.4	18.0	22.7	
Level of Service (LOS)	B	C		B	C		B	C	B	B	C	
Approach Delay, s/veh / LOS	20.4	C		20.7	C		21.8	C		20.9	C	
Intersection Delay, s/veh / LOS	21.0						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS								
Bicycle LOS Score / LOS								

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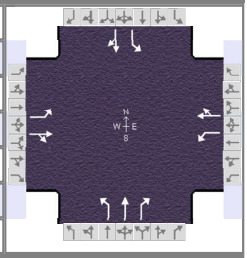
HCS Signalized Intersection Results Graphical Summary

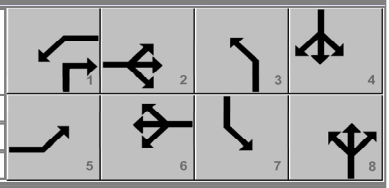
General Information				Intersection Information	
Agency	GPD Group			Duration, h	0.250
Analyst	Ryan Barco	Analysis Date	Jan 3, 2025	Area Type	Other
Jurisdiction	City of North Ridgeville	Time Period	AM Peak Hour	PHF	0.94
Urban Street	Lorain Road	Analysis Year	2025 'Build'	Analysis Period	1> 7:00
Intersection	Root Road	File Name	01 2025 AM Build Capacity Analysis Lorain & Roo…		
Project Description	North Ridgeville Circle K				



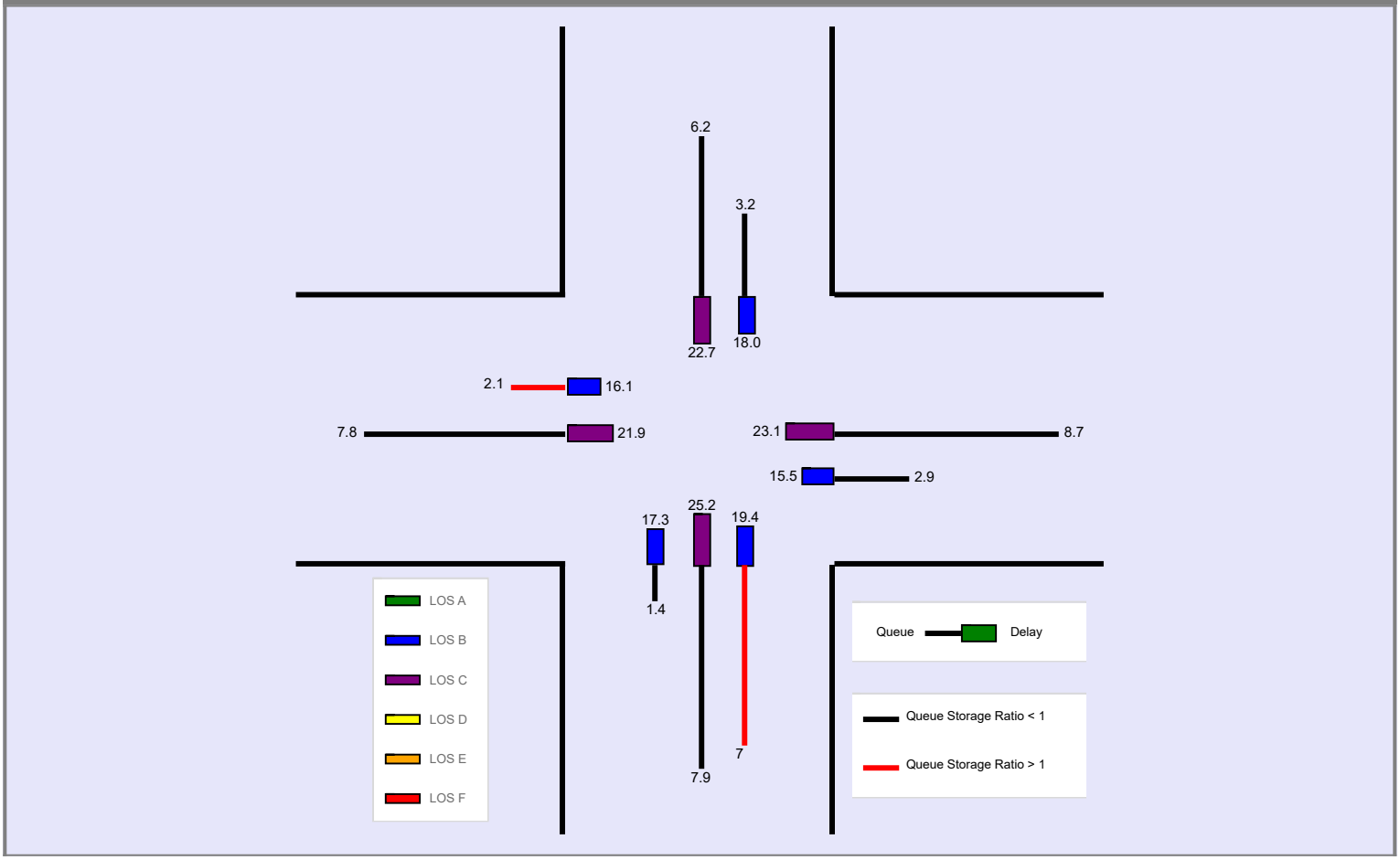
Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	114	261	56	157	177	170	72	295	300	154	193	54

Signal Information			
Cycle, s	67.9	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	6.3	0.4	20.0	5.4	1.3	16.5						
Yellow	4.0	0.0	4.0	4.0	0.0	4.0						
Red	0.0	0.0	1.0	0.0	0.0	1.0						

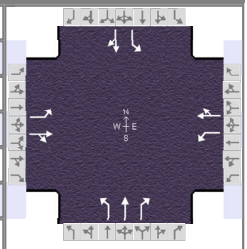


Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Back of Queue (*Q*), ft/ln (95 th percentile)	52	198		74	223		36	201	177	82	161	
Back of Queue (*Q*), veh/ln (95 th percentile)	2.1	7.8		2.9	8.7		1.4	7.9	7.0	3.2	6.2	
Queue Storage Ratio (*RQ*) (95 th percentile)	1.16	0.12		0.27	0.10		0.37	0.29	1.14	0.41	0.07	
Control Delay (*d*), s/veh	16.1	21.9		15.5	23.1		17.3	25.2	19.4	18.0	22.7	
Level of Service (LOS)	B	C		B	C		B	C	B	B	C	
Approach Delay, s/veh / LOS	20.4	C		20.7	C		21.8	C		20.9	C	
Intersection Delay, s/veh / LOS	21.0						C					



HCS Signalized Intersection Input Data

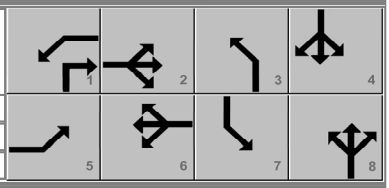
General Information				Intersection Information	
Agency	GPD Group			Duration, h	0.250
Analyst	Ryan Barco	Analysis Date	Jan 3, 2025	Area Type	Other
Jurisdiction	City of North Ridgeville	Time Period	PM Peak Hour	PHF	0.92
Urban Street	Lorain Road	Analysis Year	2025 'Build'	Analysis Period	1> 7:00
Intersection	Root Road	File Name	02 2025 PM Build Capacity Analysis Lorain & Roo…		
Project Description	North Ridgeville Circle K				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	84	239	77	298	401	233	83	266	210	182	312	96

Signal Information			
Cycle, s	104.7	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	6.5	2.5	37.8	6.5	3.5	25.9						
Yellow	4.0	4.0	4.0	4.0	0.0	4.0						
Red	0.0	0.0	1.0	0.0	0.0	1.0						



Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	84	239	77	298	401	233	83	266	210	182	312	96
Initial Queue (Q_b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s_o), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N_m), man/h		None			None			None			None	
Heavy Vehicles (P_{HV}), %	2	2		1	1		1	1	1	0	0	
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N_b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (*AT*)	3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (*I*)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (*W*), ft	12.0	12.0		12.0	12.0		12.0	12.0	12.0	12.0	12.0	
Turn Bay Length, ft	45	1700		275	2330		100	700	155	200	2320	
Grade (*Pg*), %		0			0			0			0	
Speed Limit, mi/h	35	35	35	35	35	35	35	35	35	35	35	35

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s	13.0	53.0	13.0	53.0	10.0	38.0	10.0	38.0
Yellow Change Interval (*Y*), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Red Clearance Interval (R_c), s	0.0	1.0	0.0	1.0	0.0	1.0	0.0	1.0
Minimum Green (G_{min}), s	7	20	7	20	7	10	7	10
Start-Up Lost Time (*lt*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (*e*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Passage (*PT*), s	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	Off	Min	Off	Min	Off	Off	Off	Off
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (*Walk*), s		0.0		0.0		0.0		0.0
Pedestrian Clearance Time (*PC*), s		0.0		0.0		0.0		0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0.0	No	25.0	0.0	No	25.0	0.0	No	25.0	0.0	No	25.0
Walkway / Crosswalk Width / Length, ft	9.0	12.0	0.0	9.0	12.0	0.0	9.0	12.0	0.0	9.0	12.0	0.0
Street Width / Island / Curb, ft	0.0	0	No	0.0	0	No	0.0	0	No	0.0	0	No
Width Outside / Bike Lane / Shoulder, ft	12.0	5.0	2.0	12.0	5.0	2.0	12.0	5.0	2.0	12.0	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50		No	0.50	

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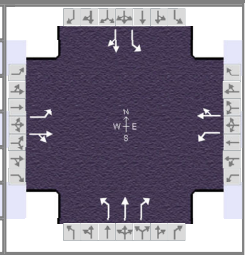
HCS Signalized Intersection Results Summary

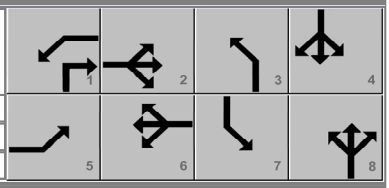
General Information				Intersection Information	
Agency	GPD Group			Duration, h	0.250
Analyst	Ryan Barco	Analysis Date	Jan 3, 2025	Area Type	Other
Jurisdiction	City of North Ridgeville	Time Period	PM Peak Hour	PHF	0.92
Urban Street	Lorain Road	Analysis Year	2025 'Build'	Analysis Period	1> 7:00
Intersection	Root Road	File Name	02 2025 PM Build Capacity Analysis Lorain & Roo…		
Project Description	North Ridgeville Circle K				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	84	239	77	298	401	233	83	266	210	182	312	96

Signal Information			
Cycle, s	104.7	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	6.5	2.5	37.8	6.5	3.5	25.9	
Yellow	4.0	4.0	4.0	4.0	0.0	4.0	
Red	0.0	0.0	1.0	0.0	0.0	1.0	



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	3	8	7	4
Case Number	1.1	4.0	1.1	4.0	1.1	3.0	1.1	4.0
Phase Duration, s	10.5	42.8	17.0	49.3	10.5	30.9	14.0	34.4
Change Period, (*Y+R c*), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0
Max Allow Headway (*MAH*), s	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
Queue Clearance Time (*g s*), s	5.3	17.9	13.4	40.6	5.8	16.3	10.3	26.2
Green Extension Time (*g e*), s	0.1	4.8	0.0	3.7	0.1	3.8	0.0	3.1
Phase Call Probability	0.93	1.00	1.00	1.00	0.93	1.00	1.00	1.00
Max Out Probability	0.03	0.00	1.00	0.24	0.95	0.03	1.00	0.21

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	91	343		324	689		90	289	228	198	443	
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1781	1792		1795	1768		1795	1885	1598	1810	1823	
Queue Service Time (*g s*), s	3.3	15.9		11.4	38.6		3.8	14.3	11.0	8.3	24.2	
Cycle Queue Clearance Time (*g c*), s	3.3	15.9		11.4	38.6		3.8	14.3	11.0	8.3	24.2	
Green Ratio (*g/C*)	0.42	0.36		0.51	0.42		0.31	0.25	0.37	0.36	0.28	
Capacity (*c*), veh/h	207	648		512	749		209	466	593	365	511	
Volume-to-Capacity Ratio (*X*)	0.442	0.530		0.633	0.920		0.432	0.621	0.385	0.543	0.867	
Back of Queue (*Q*), ft/ln (95 th percentile)	64	278		212	634		77	272	187	163	436	
Back of Queue (*Q*), veh/ln (95 th percentile)	2.5	10.9		8.4	25.2		3.0	10.8	7.4	6.5	17.4	
Queue Storage Ratio (*RQ*) (95 th percentile)	1.42	0.16		0.77	0.27		0.77	0.39	1.20	0.81	0.19	
Uniform Delay (*d 1*), s/veh	24.6	26.4		17.9	28.5		29.0	35.1	24.2	25.8	35.8	
Incremental Delay (*d 2*), s/veh	1.5	0.7		2.5	13.0		1.4	1.4	0.4	1.6	9.6	
Initial Queue Delay (*d 3*), s/veh	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Control Delay (*d*), s/veh	26.1	27.1		20.4	41.6		30.5	36.4	24.6	27.4	45.4	
Level of Service (LOS)	C	C		C	D		C	D	C	C	D	
Approach Delay, s/veh / LOS	26.9	C		34.8	C		31.1	C		39.9	D	
Intersection Delay, s/veh / LOS	33.9						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS								
Bicycle LOS Score / LOS								

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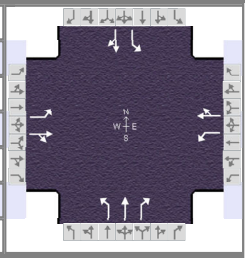
HCS Signalized Intersection Results Graphical Summary

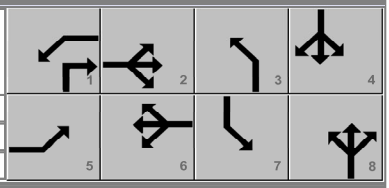
General Information				Intersection Information	
Agency	GPD Group			Duration, h	0.250
Analyst	Ryan Barco	Analysis Date	Jan 3, 2025	Area Type	Other
Jurisdiction	City of North Ridgeville	Time Period	PM Peak Hour	PHF	0.92
Urban Street	Lorain Road	Analysis Year	2025 'Build'	Analysis Period	1> 7:00
Intersection	Root Road	File Name	02 2025 PM Build Capacity Analysis Lorain & Roo…		
Project Description	North Ridgeville Circle K				



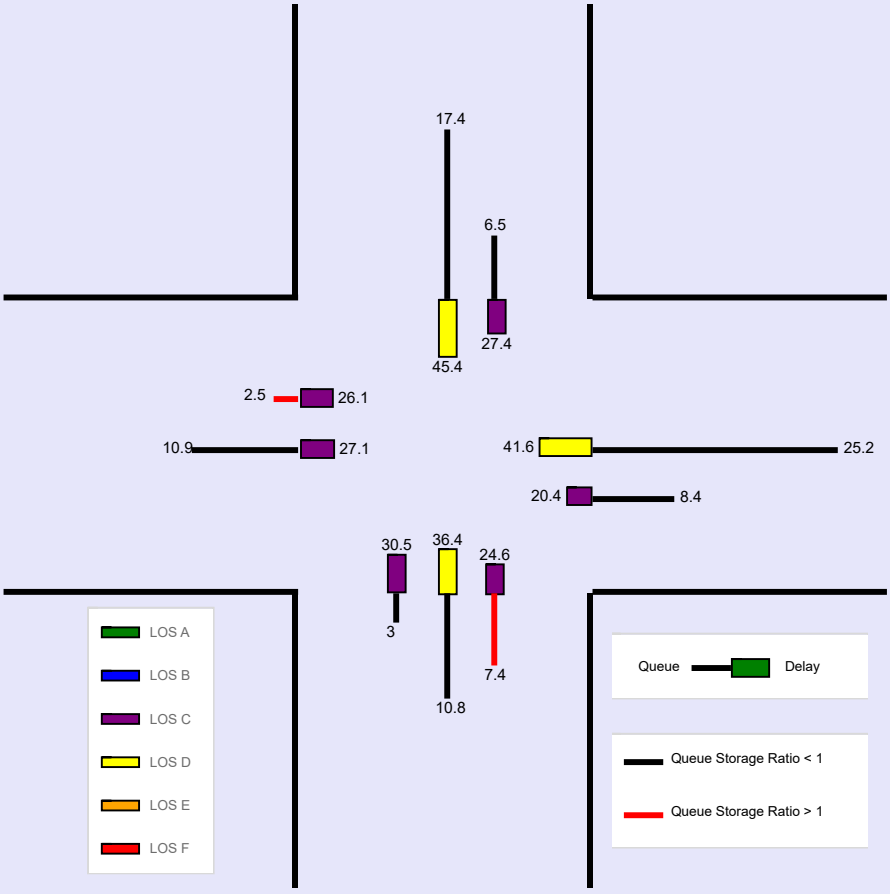
Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	84	239	77	298	401	233	83	266	210	182	312	96

Signal Information									
Cycle, s	104.7	Reference Phase	2						
Offset, s	0	Reference Point	End						
Uncoordinated	Yes	Simult. Gap E/W	On						
Force Mode	Fixed	Simult. Gap N/S	On						

Green	6.5	2.5	37.8	6.5	3.5	25.9						
Yellow	4.0	4.0	4.0	4.0	0.0	4.0						
Red	0.0	0.0	1.0	0.0	0.0	1.0						



Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Back of Queue (*Q*), ft/ln (95 th percentile)	64	278		212	634		77	272	187	163	436	
Back of Queue (*Q*), veh/ln (95 th percentile)	2.5	10.9		8.4	25.2		3.0	10.8	7.4	6.5	17.4	
Queue Storage Ratio (*RQ*) (95 th percentile)	1.42	0.16		0.77	0.27		0.77	0.39	1.20	0.81	0.19	
Control Delay (*d*), s/veh	26.1	27.1		20.4	41.6		30.5	36.4	24.6	27.4	45.4	
Level of Service (LOS)	C	C		C	D		C	D	C	C	D	
Approach Delay, s/veh / LOS	26.9	C		34.8	C		31.1	C		39.9	D	
Intersection Delay, s/veh / LOS	33.9						C					



HCS Two-Way Stop-Control Report

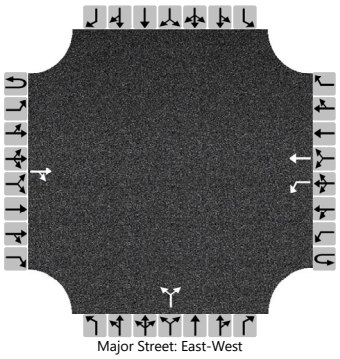
General Information

Analyst	Ryan Barco
Agency/Co.	GPD Group
Date Performed	1/3/2025
Analysis Year	2025
Time Analyzed	AM Peak Hour 'Build'
Intersection Orientation	East-West
Project Description	North Ridgeville Circle K TIS

Site Information

Intersection	Lorain Road / Circle K Driveway #1
Jurisdiction	City of North Ridgeville
East/West Street	Lorain Road
North/South Street	Circle K Driveway #1
Peak Hour Factor	0.94
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	1	1	0		0	1	0		0	0	0
Configuration				TR		L	T				LR					
Volume (veh/h)			670	45		29	454			50		25				
Percent Heavy Vehicles (%)						3				3		3				
Proportion Time Blocked																
Percent Grade (%)										0						
Right Turn Channelized																
Median Type | Storage																

Critical and Follow-up Headways

Base Critical Headway (sec)						4.1				7.1		6.2				
Critical Headway (sec)						4.13				6.43		6.23				
Base Follow-Up Headway (sec)						2.2				3.5		3.3				
Follow-Up Headway (sec)						2.23				3.53		3.33				

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						31					80					
Capacity, c (veh/h)						847					217					
v/c Ratio						0.04					0.37					
95% Queue Length, Q_{95} (veh)						0.1					1.6					
95% Queue Length, Q_{95} (ft)						2.6					41.0					
Control Delay (s/veh)						9.4					30.9					
Level of Service (LOS)						A					D					
Approach Delay (s/veh)						0.6				30.9						
Approach LOS						A				D						

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HCS Two-Way Stop-Control Report

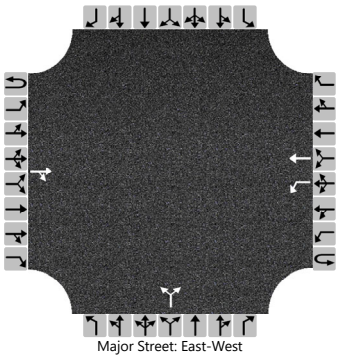
General Information

Analyst	Ryan Barco
Agency/Co.	GPD Group
Date Performed	1/3/2025
Analysis Year	2025
Time Analyzed	PM Peak Hour 'Build'
Intersection Orientation	East-West
Project Description	North Ridgeville Circle K TIS

Site Information

Intersection	Lorain Road / Circle K Driveway #1
Jurisdiction	City of North Ridgeville
East/West Street	Lorain Road
North/South Street	Circle K Driveway #1
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	1	1	0		0	1	0		0	0	0
Configuration				TR		L	T				LR					
Volume (veh/h)			588	43		37	871			61		20				
Percent Heavy Vehicles (%)						3				3		3				
Proportion Time Blocked																
Percent Grade (%)										0						
Right Turn Channelized																
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)						4.1				7.1		6.2				
Critical Headway (sec)						4.13				6.43		6.23				
Base Follow-Up Headway (sec)						2.2				3.5		3.3				
Follow-Up Headway (sec)						2.23				3.53		3.33				

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						40					88					
Capacity, c (veh/h)						903					121					
v/c Ratio						0.04					0.73					
95% Queue Length, Q_{95} (veh)						0.1					4.0					
95% Queue Length, Q_{95} (ft)						2.6					102.4					
Control Delay (s/veh)						9.2					89.4					
Level of Service (LOS)						A					F					
Approach Delay (s/veh)					0.4				89.4							
Approach LOS					A				F							

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HCS Two-Way Stop-Control Report

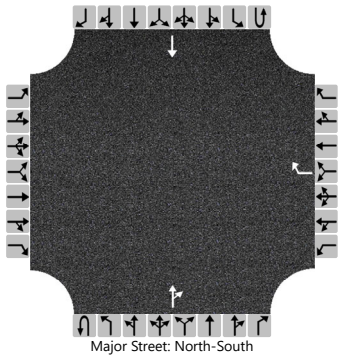
General Information

Analyst	Ryan Barco
Agency/Co.	GPD Group
Date Performed	1/3/2025
Analysis Year	2025
Time Analyzed	AM Peak Hour 'Build'
Intersection Orientation	North-South
Project Description	North Ridgeville Circle K TIS

Site Information

Intersection	Root Road / Circle K Driveway #2
Jurisdiction	City of North Ridgeville
East/West Street	Circle K Driveway #2
North/South Street	Root Road
Peak Hour Factor	0.94
Analysis Time Period (hrs)	0.25

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	0	1	0	0	1	0	0	0	1	0
Configuration								R				TR			T	
Volume (veh/h)								37			630	38			406	
Percent Heavy Vehicles (%)								3								
Proportion Time Blocked																
Percent Grade (%)						0										
Right Turn Channelized						No										
Median Type | Storage						Undivided										

Critical and Follow-up Headways

Base Critical Headway (sec)								6.2								
Critical Headway (sec)								6.23								
Base Follow-Up Headway (sec)								3.3								
Follow-Up Headway (sec)								3.33								

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)								39								
Capacity, c (veh/h)								443								
v/c Ratio								0.09								
95% Queue Length, Q_{95} (veh)								0.3								
95% Queue Length, Q_{95} (ft)								7.7								
Control Delay (s/veh)								13.9								
Level of Service (LOS)								B								
Approach Delay (s/veh)						13.9										
Approach LOS						B										

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HCS Two-Way Stop-Control Report

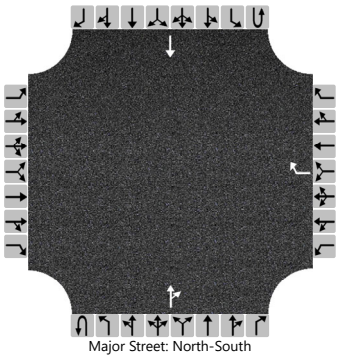
General Information

Analyst	Ryan Barco
Agency/Co.	GPD Group
Date Performed	1/3/2025
Analysis Year	2025
Time Analyzed	PM Peak Hour 'Build'
Intersection Orientation	North-South
Project Description	North Ridgeville Circle K TIS

Site Information

Intersection	Root Road / Circle K Driveway #2
Jurisdiction	City of North Ridgeville
East/West Street	Circle K Driveway #2
North/South Street	Root Road
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	0	1	0	0	1	0	0	0	1	0
Configuration								R				TR			T	
Volume (veh/h)								27			532	28			687	
Percent Heavy Vehicles (%)								3								
Proportion Time Blocked																
Percent Grade (%)						0										
Right Turn Channelized						No										
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)								6.2								
Critical Headway (sec)								6.23								
Base Follow-Up Headway (sec)								3.3								
Follow-Up Headway (sec)								3.33								

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)								29								
Capacity, c (veh/h)								503								
v/c Ratio								0.06								
95% Queue Length, Q_{95} (veh)								0.2								
95% Queue Length, Q_{95} (ft)								5.1								
Control Delay (s/veh)								12.6								
Level of Service (LOS)								B								
Approach Delay (s/veh)						12.6										
Approach LOS						B										

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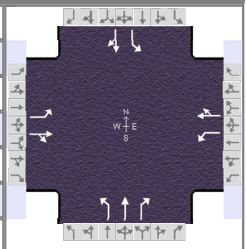
DESIGN YEAR 2045 'BUILD' CONDITIONS

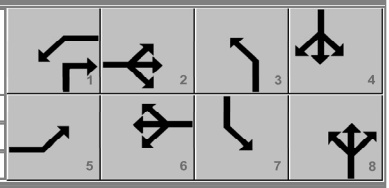
HCS Signalized Intersection Input Data

General Information				Intersection Information	
Agency	GPD Group			Duration, h	0.250
Analyst	Ryan Barco	Analysis Date	Jan 3, 2025	Area Type	Other
Jurisdiction	City of North Ridgeville	Time Period	AM Peak Hour	PHF	0.94
Urban Street	Lorain Road	Analysis Year	2045 'Build'	Analysis Period	1> 7:00
Intersection	Root Road	File Name	01 2045 AM Build Capacity Analysis Lorain & Roo…		
Project Description	North Ridgeville Circle K				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	137	311	67	184	211	203	86	352	359	180	235	64

Signal Information												
Cycle, s	77.9	Reference Phase	2									
Offset, s	0	Reference Point	End									
Uncoordinated	Yes	Simult. Gap E/W	On									
Force Mode	Fixed	Simult. Gap N/S	On									
				Green	6.7	1.2	22.8	6.0	1.9	21.1		
				Yellow	4.0	0.0	4.0	4.0	0.0	4.0		
				Red	0.0	0.0	1.0	0.0	0.0	1.0		



Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	137	311	67	184	211	203	86	352	359	180	235	64
Initial Queue (Q_b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s_o), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N_m), man/h		None			None			None			None	
Heavy Vehicles (P_{HV}), %	1	1		3	3		2	2	2	4	4	
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N_b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (*AT*)	3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (*I*)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (*W*), ft	12.0	12.0		12.0	12.0		12.0	12.0	12.0	12.0	12.0	
Turn Bay Length, ft	45	1700		275	2330		100	700	155	200	2320	
Grade (*Pg*), %		0			0			0			0	
Speed Limit, mi/h	35	35	35	35	35	35	35	35	35	35	35	35

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s	10.0	40.0	10.0	40.0	10.0	30.0	10.0	30.0
Yellow Change Interval (*Y*), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Red Clearance Interval (R_c), s	0.0	1.0	0.0	1.0	0.0	1.0	0.0	1.0
Minimum Green (G_{min}), s	7	20	7	20	7	10	7	10
Start-Up Lost Time (*l*t), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (*e*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Passage (*PT*), s	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	Off	Min	Off	Min	Off	Off	Off	Off
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (*Walk*), s		0.0		0.0		0.0		0.0
Pedestrian Clearance Time (*PC*), s		0.0		0.0		0.0		0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0.0	No	25.0	0.0	No	25.0	0.0	No	25.0	0.0	No	25.0
Walkway / Crosswalk Width / Length, ft	9.0	12.0	0.0	9.0	12.0	0.0	9.0	12.0	0.0	9.0	12.0	0.0
Street Width / Island / Curb, ft	0.0	0	No	0.0	0	No	0.0	0	No	0.0	0	No
Width Outside / Bike Lane / Shoulder, ft	12.0	5.0	2.0	12.0	5.0	2.0	12.0	5.0	2.0	12.0	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50		No	0.50	

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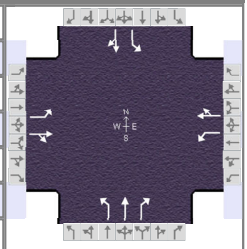
HCS Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	GPD Group			Duration, h	0.250
Analyst	Ryan Barco	Analysis Date	Jan 3, 2025	Area Type	Other
Jurisdiction	City of North Ridgeville	Time Period	AM Peak Hour	PHF	0.94
Urban Street	Lorain Road	Analysis Year	2045 'Build'	Analysis Period	1> 7:00
Intersection	Root Road	File Name	01 2045 AM Build Capacity Analysis Lorain & Roo…		
Project Description	North Ridgeville Circle K				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	137	311	67	184	211	203	86	352	359	180	235	64

Signal Information			
Cycle, s	77.9	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

							1	2	3	4
Green	6.7	1.2	22.8	6.0	1.9	21.1	5	6	7	8
Yellow	4.0	0.0	4.0	4.0	0.0	4.0				
Red	0.0	0.0	1.0	0.0	0.0	1.0				

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	3	8	7	4
Case Number	1.1	4.0	1.1	4.0	1.1	3.0	1.1	4.0
Phase Duration, s	10.7	27.8	11.9	29.0	10.0	26.1	12.0	28.1
Change Period, ($Y+R_c$), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0
Max Allow Headway (*MAH*), s	4.1	4.1	4.1	4.1	4.1	4.2	4.1	4.2
Queue Clearance Time (g_s), s	6.3	17.5	7.9	20.8	4.7	17.5	8.0	14.0
Green Extension Time (g_e), s	0.1	3.4	0.1	3.3	0.1	3.6	0.1	4.0
Phase Call Probability	0.96	1.00	0.99	1.00	0.86	1.00	0.98	1.00
Max Out Probability	1.00	0.01	1.00	0.03	0.32	0.23	1.00	0.13

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	146	402		196	440		91	374	382	191	318	
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1795	1827		1767	1705		1781	1870	1585	1753	1772	
Queue Service Time (g_s), s	4.3	15.5		5.9	18.8		2.7	14.2	15.5	6.0	12.0	
Cycle Queue Clearance Time (g_c), s	4.3	15.5		5.9	18.8		2.7	14.2	15.5	6.0	12.0	
Green Ratio (*g/C*)	0.38	0.29		0.40	0.31		0.35	0.27	0.37	0.37	0.30	
Capacity (*c*), veh/h	288	536		363	527		355	508	591	361	526	
Volume-to-Capacity Ratio (*X*)	0.507	0.750		0.539	0.836		0.258	0.737	0.646	0.531	0.605	
Back of Queue (*Q*), ft/ln (95 th percentile)	79	272		107	309		50	264	236	109	219	
Back of Queue (*Q*), veh/ln (95 th percentile)	3.1	10.8		4.2	12.1		2.0	10.4	9.3	4.2	8.5	
Queue Storage Ratio (*RQ*) (95 th percentile)	1.76	0.16		0.39	0.13		0.50	0.38	1.52	0.55	0.09	
Uniform Delay (d_1), s/veh	19.2	24.9		18.0	25.1		18.4	25.8	20.2	18.7	23.5	
Incremental Delay (d_2), s/veh	1.4	2.1		1.2	3.7		0.4	2.4	1.2	1.2	1.1	
Initial Queue Delay (d_3), s/veh	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Control Delay (*d*), s/veh	20.6	27.1		19.2	28.8		18.8	28.3	21.4	19.9	24.6	
Level of Service (LOS)	C	C		B	C		B	C	C	B	C	
Approach Delay, s/veh / LOS	25.4	C		25.8	C		24.1	C		22.9	C	
Intersection Delay, s/veh / LOS	24.6						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS								
Bicycle LOS Score / LOS								

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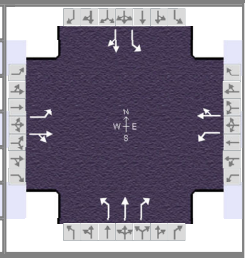
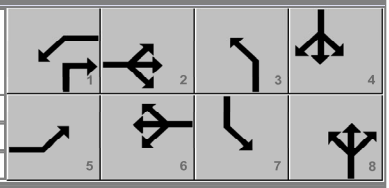
HCS Signalized Intersection Results Graphical Summary

General Information				Intersection Information	
Agency	GPD Group			Duration, h	0.250
Analyst	Ryan Barco	Analysis Date	Jan 3, 2025	Area Type	Other
Jurisdiction	City of North Ridgeville	Time Period	AM Peak Hour	PHF	0.94
Urban Street	Lorain Road	Analysis Year	2045 'Build'	Analysis Period	1> 7:00
Intersection	Root Road	File Name	01 2045 AM Build Capacity Analysis Lorain & Roo…		
Project Description	North Ridgeville Circle K				

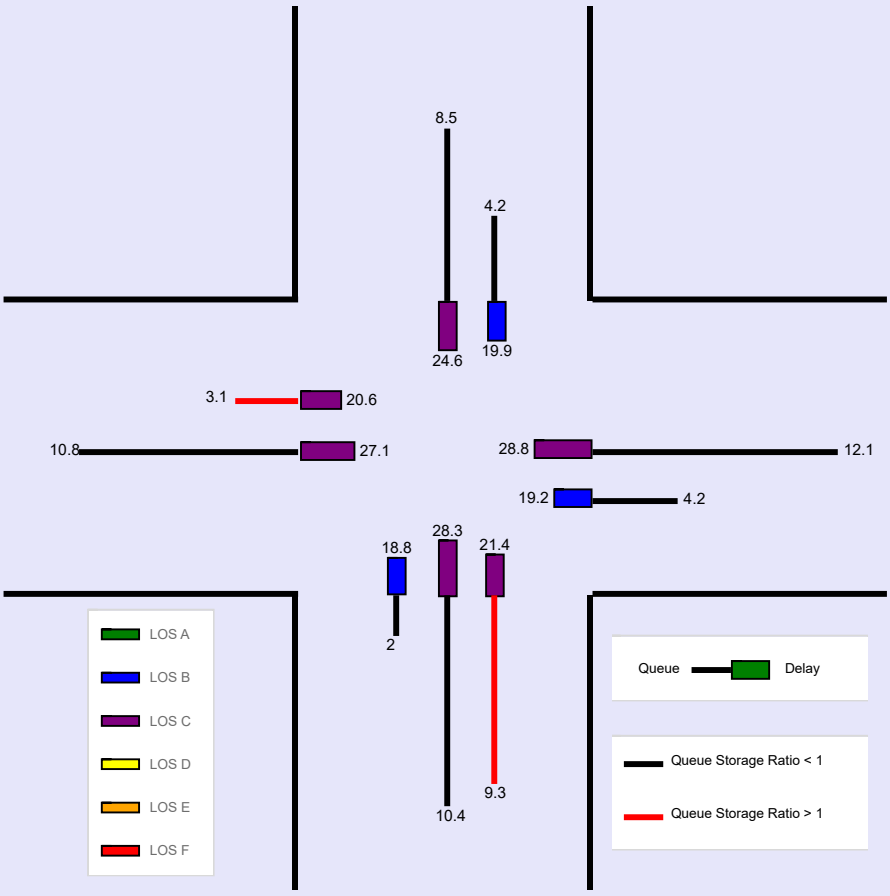


Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	137	311	67	184	211	203	86	352	359	180	235	64

Signal Information												
Cycle, s	77.9	Reference Phase	2									
Offset, s	0	Reference Point	End									
Uncoordinated	Yes	Simult. Gap E/W	On									
Force Mode	Fixed	Simult. Gap N/S	On									
				Green	6.7	1.2	22.8	6.0	1.9	21.1		
				Yellow	4.0	0.0	4.0	4.0	0.0	4.0		
				Red	0.0	0.0	1.0	0.0	0.0	1.0		

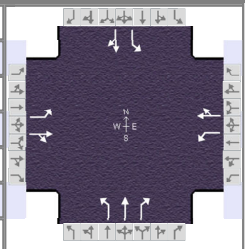


Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Back of Queue (*Q*), ft/ln (95 th percentile)	79	272		107	309		50	264	236	109	219	
Back of Queue (*Q*), veh/ln (95 th percentile)	3.1	10.8		4.2	12.1		2.0	10.4	9.3	4.2	8.5	
Queue Storage Ratio (*RQ*) (95 th percentile)	1.76	0.16		0.39	0.13		0.50	0.38	1.52	0.55	0.09	
Control Delay (*d*), s/veh	20.6	27.1		19.2	28.8		18.8	28.3	21.4	19.9	24.6	
Level of Service (LOS)	C	C		B	C		B	C	C	B	C	
Approach Delay, s/veh / LOS	25.4	C		25.8	C		24.1	C		22.9	C	
Intersection Delay, s/veh / LOS	24.6						C					



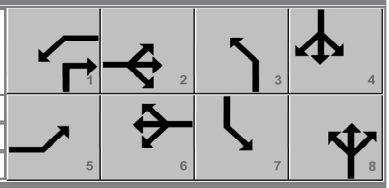
HCS Signalized Intersection Input Data

General Information				Intersection Information	
Agency	GPD Group			Duration, h	0.250
Analyst	Ryan Barco	Analysis Date	Jan 3, 2025	Area Type	Other
Jurisdiction	City of North Ridgeville	Time Period	PM Peak Hour	PHF	0.92
Urban Street	Lorain Road	Analysis Year	2045 'Build'	Analysis Period	1> 7:00
Intersection	Root Road	File Name	02 2045 PM Build Capacity Analysis Lorain & Roo…		
Project Description	North Ridgeville Circle K				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	100	286	92	351	480	280	99	317	252	212	378	115

Signal Information										
Cycle, s	122.6	Reference Phase	2							
Offset, s	0	Reference Point	End							
Uncoordinated	Yes	Simult. Gap E/W	On							
Force Mode	Fixed	Simult. Gap N/S	On							
				Green	6.8	2.2	46.8	7.0	3.0	34.7
				Yellow	4.0	4.0	4.0	4.0	0.0	4.0
				Red	0.0	0.0	1.0	0.0	0.0	1.0



Traffic Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	100	286	92	351	480	280	99	317	252	212	378	115
Initial Queue (Q_b), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Base Saturation Flow Rate (s_o), veh/h	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Parking (N_m), man/h		None			None			None			None	
Heavy Vehicles (P_{HV}), %	2	2		1	1		1	1	1	0	0	
Ped / Bike / RTOR, /h	0	0	0	0	0	0	0	0	0	0	0	0
Buses (N_b), buses/h	0	0	0	0	0	0	0	0	0	0	0	0
Arrival Type (*AT*)	3	3	3	3	3	3	3	3	3	3	3	3
Upstream Filtering (*I*)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Width (*W*), ft	12.0	12.0		12.0	12.0		12.0	12.0	12.0	12.0	12.0	
Turn Bay Length, ft	45	1700		275	2330		100	700	155	200	2320	
Grade (*Pg*), %		0			0			0			0	
Speed Limit, mi/h	35	35	35	35	35	35	35	35	35	35	35	35

Phase Information	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Maximum Green (G_{max}) or Phase Split, s	13.0	53.0	13.0	53.0	10.0	38.0	10.0	38.0
Yellow Change Interval (*Y*), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Red Clearance Interval (R_c), s	0.0	1.0	0.0	1.0	0.0	1.0	0.0	1.0
Minimum Green (G_{min}), s	7	20	7	20	7	10	7	10
Start-Up Lost Time (*l*t), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Extension of Effective Green (*e*), s	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Passage (*PT*), s	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	Off	Min	Off	Min	Off	Off	Off	Off
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Walk (*Walk*), s		0.0		0.0		0.0		0.0
Pedestrian Clearance Time (*PC*), s		0.0		0.0		0.0		0.0

Multimodal Information	EB			WB			NB			SB		
85th % Speed / Rest in Walk / Corner Radius	0.0	No	25.0	0.0	No	25.0	0.0	No	25.0	0.0	No	25.0
Walkway / Crosswalk Width / Length, ft	9.0	12.0	0.0	9.0	12.0	0.0	9.0	12.0	0.0	9.0	12.0	0.0
Street Width / Island / Curb, ft	0.0	0	No	0.0	0	No	0.0	0	No	0.0	0	No
Width Outside / Bike Lane / Shoulder, ft	12.0	5.0	2.0	12.0	5.0	2.0	12.0	5.0	2.0	12.0	5.0	2.0
Pedestrian Signal / Occupied Parking	No	0.50		No	0.50		No	0.50		No	0.50	

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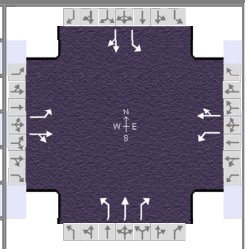
HCS Signalized Intersection Results Summary

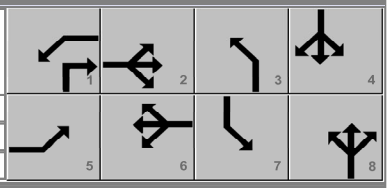
General Information				Intersection Information	
Agency	GPD Group			Duration, h	0.250
Analyst	Ryan Barco	Analysis Date	Jan 3, 2025	Area Type	Other
Jurisdiction	City of North Ridgeville	Time Period	PM Peak Hour	PHF	0.92
Urban Street	Lorain Road	Analysis Year	2045 'Build'	Analysis Period	1> 7:00
Intersection	Root Road	File Name	02 2045 PM Build Capacity Analysis Lorain & Roo…		
Project Description	North Ridgeville Circle K				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	100	286	92	351	480	280	99	317	252	212	378	115

Signal Information			
Cycle, s	122.6	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	6.8	2.2	46.8	7.0	3.0	34.7						
Yellow	4.0	4.0	4.0	4.0	0.0	4.0						
Red	0.0	0.0	1.0	0.0	0.0	1.0						



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	3	8	7	4
Case Number	1.1	4.0	1.1	4.0	1.1	3.0	1.1	4.0
Phase Duration, s	10.8	51.8	17.0	58.0	11.0	39.7	14.0	42.7
Change Period, (*Y+R c*), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0
Max Allow Headway (*MAH*), s	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
Queue Clearance Time (*g s*), s	6.5	24.5	15.0	55.0	7.2	21.6	12.0	37.3
Green Extension Time (*g e*), s	0.1	6.2	0.0	0.0	0.1	4.4	0.0	0.4
Phase Call Probability	0.98	1.00	1.00	1.00	0.97	1.00	1.00	1.00
Max Out Probability	0.11	0.04	1.00	1.00	1.00	0.14	1.00	1.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	109	411		382	826		108	345	274	230	536	
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1781	1792		1795	1768		1795	1885	1598	1810	1823	
Queue Service Time (*g s*), s	4.5	22.5		13.0	53.0		5.2	19.6	15.5	10.0	35.3	
Cycle Queue Clearance Time (*g c*), s	4.5	22.5		13.0	53.0		5.2	19.6	15.5	10.0	35.3	
Green Ratio (*g/C*)	0.44	0.38		0.50	0.43		0.34	0.28	0.39	0.37	0.31	
Capacity (*c*), veh/h	158	685		444	764		165	534	622	336	561	
Volume-to-Capacity Ratio (*X*)	0.688	0.600		0.859	1.081		0.654	0.645	0.440	0.686	0.955	
Back of Queue (*Q*), ft/ln (95 th percentile)	95	378		266	1158		110	360	250	228	675	
Back of Queue (*Q*), veh/ln (95 th percentile)	3.7	14.9		10.6	45.9		4.4	14.3	9.9	9.1	27.0	
Queue Storage Ratio (*RQ*) (95 th percentile)	2.11	0.22		0.97	0.50		1.10	0.51	1.61	1.14	0.29	
Uniform Delay (*d 1*), s/veh	29.6	30.4		27.5	34.8		33.2	38.5	27.6	31.7	41.6	
Incremental Delay (*d 2*), s/veh	5.2	1.0		15.5	56.5		4.9	2.2	0.5	5.7	26.9	
Initial Queue Delay (*d 3*), s/veh	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Control Delay (*d*), s/veh	34.8	31.4		43.0	91.3		38.1	40.7	28.1	37.4	68.5	
Level of Service (LOS)	C	C		D	F		D	D	C	D	E	
Approach Delay, s/veh / LOS	32.1	C		76.0	E		35.5	D		59.2	E	
Intersection Delay, s/veh / LOS	55.8						E					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS								
Bicycle LOS Score / LOS								

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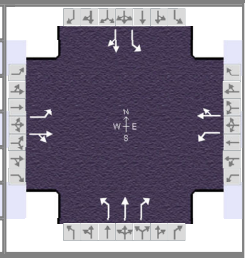
HCS Signalized Intersection Results Graphical Summary

General Information				Intersection Information	
Agency	GPD Group			Duration, h	0.250
Analyst	Ryan Barco	Analysis Date	Jan 3, 2025	Area Type	Other
Jurisdiction	City of North Ridgeville	Time Period	PM Peak Hour	PHF	0.92
Urban Street	Lorain Road	Analysis Year	2045 'Build'	Analysis Period	1> 7:00
Intersection	Root Road	File Name	02 2045 PM Build Capacity Analysis Lorain & Roo…		
Project Description	North Ridgeville Circle K				

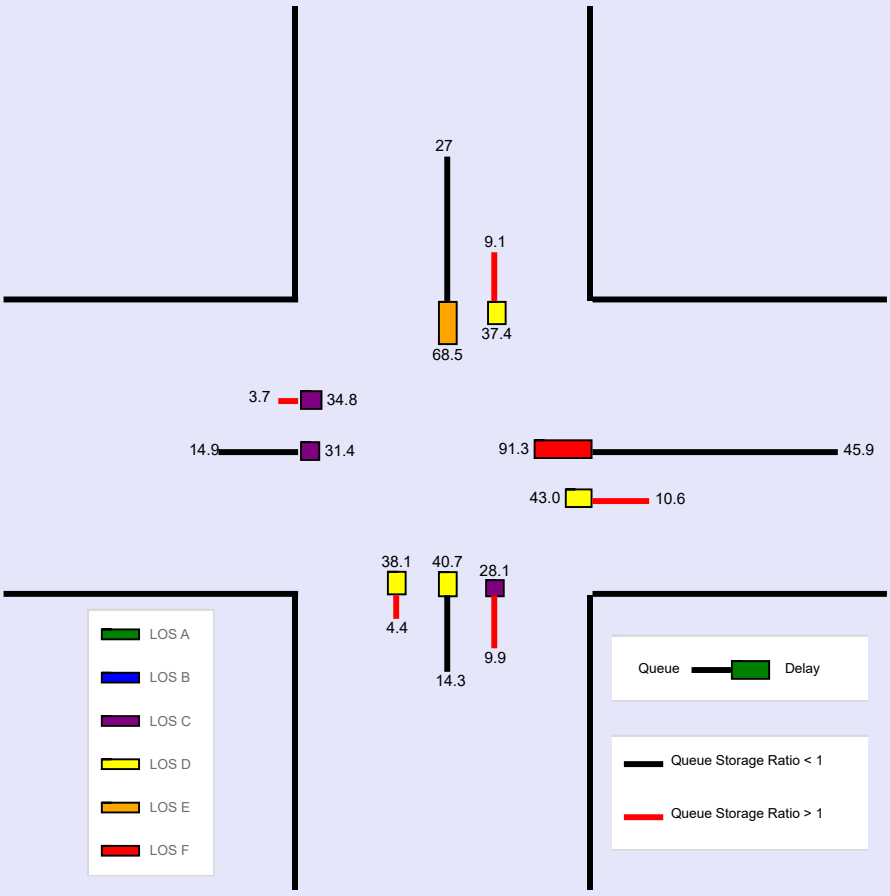


Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	100	286	92	351	480	280	99	317	252	212	378	115

Signal Information			
Cycle, s	122.6	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	6.8	2.2	46.8	7.0	3.0	34.7	1	2	3	4		
Yellow	4.0	4.0	4.0	4.0	0.0	4.0	5	6	7	8		
Red	0.0	0.0	1.0	0.0	0.0	1.0						

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Back of Queue (*Q*), ft/ln (95 th percentile)	95	378		266	1158		110	360	250	228	675	
Back of Queue (*Q*), veh/ln (95 th percentile)	3.7	14.9		10.6	45.9		4.4	14.3	9.9	9.1	27.0	
Queue Storage Ratio (*RQ*) (95 th percentile)	2.11	0.22		0.97	0.50		1.10	0.51	1.61	1.14	0.29	
Control Delay (*d*), s/veh	34.8	31.4		43.0	91.3		38.1	40.7	28.1	37.4	68.5	
Level of Service (LOS)	C	C		D	F		D	D	C	D	E	
Approach Delay, s/veh / LOS	32.1	C		76.0	E		35.5	D		59.2	E	
Intersection Delay, s/veh / LOS	55.8						E					



HCS Two-Way Stop-Control Report

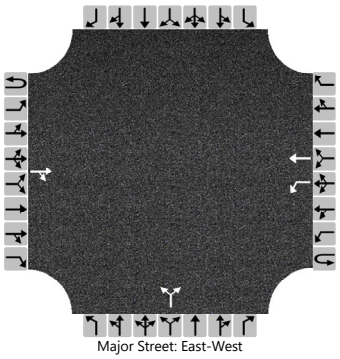
General Information

Analyst	Ryan Barco
Agency/Co.	GPD Group
Date Performed	1/3/2025
Analysis Year	2045
Time Analyzed	AM Peak Hour 'Build'
Intersection Orientation	East-West
Project Description	North Ridgeville Circle K TIS

Site Information

Intersection	Lorain Road / Circle K Driveway #1
Jurisdiction	City of North Ridgeville
East/West Street	Lorain Road
North/South Street	Circle K Driveway #1
Peak Hour Factor	0.94
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	1	1	0		0	1	0		0	0	0
Configuration				TR		L	T				LR					
Volume (veh/h)			805	45		29	548			50		25				
Percent Heavy Vehicles (%)						3				3		3				
Proportion Time Blocked																
Percent Grade (%)										0						
Right Turn Channelized																
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)						4.1				7.1		6.2				
Critical Headway (sec)						4.13				6.43		6.23				
Base Follow-Up Headway (sec)						2.2				3.5		3.3				
Follow-Up Headway (sec)						2.23				3.53		3.33				

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						31					80					
Capacity, c (veh/h)						748					157					
v/c Ratio						0.04					0.51					
95% Queue Length, Q_{95} (veh)						0.1					2.5					
95% Queue Length, Q_{95} (ft)						2.6					64.0					
Control Delay (s/veh)						10.0					49.3					
Level of Service (LOS)						B					E					
Approach Delay (s/veh)					0.5				49.3							
Approach LOS					A				E							

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HCS Two-Way Stop-Control Report

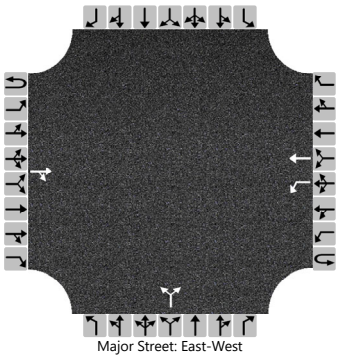
General Information

Analyst	Ryan Barco
Agency/Co.	GPD Group
Date Performed	1/3/2025
Analysis Year	2045
Time Analyzed	PM Peak Hour 'Build'
Intersection Orientation	East-West
Project Description	North Ridgeville Circle K TIS

Site Information

Intersection	Lorain Road / Circle K Driveway #1
Jurisdiction	City of North Ridgeville
East/West Street	Lorain Road
North/South Street	Circle K Driveway #1
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	1	1	0		0	1	0		0	0	0
Configuration				TR		L	T				LR					
Volume (veh/h)			707	43		37	1050			61		20				
Percent Heavy Vehicles (%)						3				3		3				
Proportion Time Blocked																
Percent Grade (%)										0						
Right Turn Channelized																
Median Type | Storage						Undivided										

Critical and Follow-up Headways

Base Critical Headway (sec)						4.1				7.1		6.2				
Critical Headway (sec)						4.13				6.43		6.23				
Base Follow-Up Headway (sec)						2.2				3.5		3.3				
Follow-Up Headway (sec)						2.23				3.53		3.33				

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						40					88					
Capacity, c (veh/h)						808					77					
v/c Ratio						0.05					1.14					
95% Queue Length, Q_{95} (veh)						0.2					6.5					
95% Queue Length, Q_{95} (ft)						5.1					166.4					
Control Delay (s/veh)						9.7					242.8					
Level of Service (LOS)						A					F					
Approach Delay (s/veh)						0.3				242.8						
Approach LOS						A				F						

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HCS Two-Way Stop-Control Report

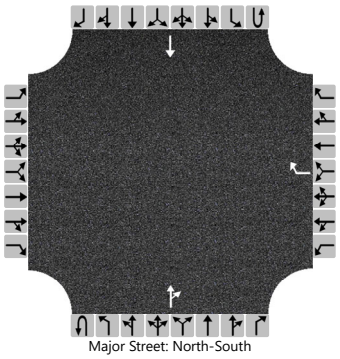
General Information

Analyst	Ryan Barco
Agency/Co.	GPD Group
Date Performed	1/3/2025
Analysis Year	2045
Time Analyzed	AM Peak Hour 'Build'
Intersection Orientation	North-South
Project Description	North Ridgeville Circle K TIS

Site Information

Intersection	Root Road / Circle K Driveway #2
Jurisdiction	City of North Ridgeville
East/West Street	Circle K Driveway #2
North/South Street	Root Road
Peak Hour Factor	0.94
Analysis Time Period (hrs)	0.25

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	0	1	0	0	1	0	0	0	1	0
Configuration								R				TR			T	
Volume (veh/h)								37			760	38			486	
Percent Heavy Vehicles (%)								3								
Proportion Time Blocked																
Percent Grade (%)						0										
Right Turn Channelized						No										
Median Type | Storage						Undivided										

Critical and Follow-up Headways

Base Critical Headway (sec)								6.2								
Critical Headway (sec)								6.23								
Base Follow-Up Headway (sec)								3.3								
Follow-Up Headway (sec)								3.33								

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)								39								
Capacity, c (veh/h)								369								
v/c Ratio								0.11								
95% Queue Length, Q_{95} (veh)								0.4								
95% Queue Length, Q_{95} (ft)								10.2								
Control Delay (s/veh)								15.9								
Level of Service (LOS)								C								
Approach Delay (s/veh)						15.9										
Approach LOS						C										

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HCS Two-Way Stop-Control Report

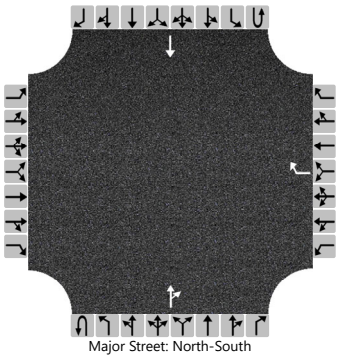
General Information

Analyst	Ryan Barco
Agency/Co.	GPD Group
Date Performed	1/3/2025
Analysis Year	2045
Time Analyzed	PM Peak Hour 'Build'
Intersection Orientation	North-South
Project Description	North Ridgeville Circle K TIS

Site Information

Intersection	Root Road / Circle K Driveway #2
Jurisdiction	City of North Ridgeville
East/West Street	Circle K Driveway #2
North/South Street	Root Road
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	0	1	0	0	1	0	0	0	1	0
Configuration								R				TR			T	
Volume (veh/h)								27			641	28			821	
Percent Heavy Vehicles (%)								3								
Proportion Time Blocked																
Percent Grade (%)						0										
Right Turn Channelized						No										
Median Type | Storage						Undivided										

Critical and Follow-up Headways

Base Critical Headway (sec)								6.2								
Critical Headway (sec)								6.23								
Base Follow-Up Headway (sec)								3.3								
Follow-Up Headway (sec)								3.33								

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)								29								
Capacity, c (veh/h)								431								
v/c Ratio								0.07								
95% Queue Length, Q_{95} (veh)								0.2								
95% Queue Length, Q_{95} (ft)								5.1								
Control Delay (s/veh)								14.0								
Level of Service (LOS)								B								
Approach Delay (s/veh)						14.0										
Approach LOS						B										

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APPENDIX I
TURN LANE LENGTH ANALYSIS

TURN LANE LENGTH CALCULATIONS

DESIGN YEAR 2045 'BUILD' TRAFFIC VOLUMES - AM PEAK HOUR

LORAIN ROAD / CIRCLE K DRIVEWAY #1

ANTICIPATED CYCLE LENGTH: 60 SEC.

WB LORAIN ROAD

DESIGN SPEED: 35 MPH

MOVEMENT:	LEFT		THRU		
VOLUME:	29		548		
% OF APPROACH VOLUME:	5.0%		95.0%		
LANE GROUP:	LEFT				
LANE GROUP VOLUME:	29				
NUMBER OF LANES:	1				
VEHICLES PER CYCLE:	1				
CONTROLLING LANE GROUP:	X				
TAPER LENGTH:	50				
STORAGE LENGTH:	50				
TOTAL TURN LANE LENGTH:	***100***				

MOVEMENT:					
VOLUME:					
% OF APPROACH VOLUME:					
LANE GROUP:					
LANE GROUP VOLUME:					
NUMBER OF LANES:					
VEHICLES PER CYCLE:					
CONTROLLING LANE GROUP:					
TAPER LENGTH:					
STORAGE LENGTH:					
TOTAL TURN LANE LENGTH:					

MOVEMENT:					
VOLUME:					
% OF APPROACH VOLUME:					
LANE GROUP:					
LANE GROUP VOLUME:					
NUMBER OF LANES:					
VEHICLES PER CYCLE:					
CONTROLLING LANE GROUP:					
TAPER LENGTH:					
STORAGE LENGTH:					
TOTAL TURN LANE LENGTH:					

MOVEMENT:					
VOLUME:					
% OF APPROACH VOLUME:					
LANE GROUP:					
LANE GROUP VOLUME:					
NUMBER OF LANES:					
VEHICLES PER CYCLE:					
CONTROLLING LANE GROUP:					
TAPER LENGTH:					
STORAGE LENGTH:					
TOTAL TURN LANE LENGTH:					

RECOMMENDED TURN LANE LENGTHS INCLUDE 50' DIVERGING TAPER

TURN LANE LENGTH CALCULATIONS

DESIGN YEAR 2045 'BUILD' TRAFFIC VOLUMES - PM PEAK HOUR

LORAIN ROAD / CIRCLE K DRIVEWAY #1

ANTICIPATED CYCLE LENGTH: 60 SEC.

WB LORAIN ROAD

DESIGN SPEED: 35 MPH

MOVEMENT:	LEFT		THRU		
VOLUME:	36		1051		
% OF APPROACH VOLUME:	3.3%		96.7%		
LANE GROUP:	LEFT				
LANE GROUP VOLUME:	36				
NUMBER OF LANES:	1				
VEHICLES PER CYCLE:	1				
CONTROLLING LANE GROUP:	X				
TAPER LENGTH:	50				
STORAGE LENGTH:	50				
TOTAL TURN LANE LENGTH:	***100***				

MOVEMENT:					
VOLUME:					
% OF APPROACH VOLUME:					
LANE GROUP:					
LANE GROUP VOLUME:					
NUMBER OF LANES:					
VEHICLES PER CYCLE:					
CONTROLLING LANE GROUP:					
TAPER LENGTH:					
STORAGE LENGTH:					
TOTAL TURN LANE LENGTH:					

MOVEMENT:					
VOLUME:					
% OF APPROACH VOLUME:					
LANE GROUP:					
LANE GROUP VOLUME:					
NUMBER OF LANES:					
VEHICLES PER CYCLE:					
CONTROLLING LANE GROUP:					
TAPER LENGTH:					
STORAGE LENGTH:					
TOTAL TURN LANE LENGTH:					

MOVEMENT:					
VOLUME:					
% OF APPROACH VOLUME:					
LANE GROUP:					
LANE GROUP VOLUME:					
NUMBER OF LANES:					
VEHICLES PER CYCLE:					
CONTROLLING LANE GROUP:					
TAPER LENGTH:					
STORAGE LENGTH:					
TOTAL TURN LANE LENGTH:					

RECOMMENDED TURN LANE LENGTHS INCLUDE 50' DIVERGING TAPER

TURN LANE LENGTH CALCULATIONS

DESIGN YEAR 2045 'BUILD' TRAFFIC VOLUMES - AM PEAK HOUR

LORAIN ROAD / ROOT ROAD

ANTICIPATED CYCLE LENGTH: 120 SEC.

NB ROOT ROAD

DESIGN SPEED: 35 MPH

MOVEMENT:	LEFT		THRU		RIGHT
VOLUME:	86		352		359
% OF APPROACH VOLUME:	10.8%		44.2%		45.0%
LANE GROUP:	LEFT		THRU		
LANE GROUP VOLUME:	86		352		
NUMBER OF LANES:	1		1		
VEHICLES PER CYCLE:	3		12		
CONTROLLING LANE GROUP:					
TAPER LENGTH:	50		50		
STORAGE LENGTH:	150		450		
TOTAL TURN LANE LENGTH:	***200***		***500***		

MOVEMENT:					
VOLUME:					
% OF APPROACH VOLUME:					
LANE GROUP:					
LANE GROUP VOLUME:					
NUMBER OF LANES:					
VEHICLES PER CYCLE:					
CONTROLLING LANE GROUP:					
TAPER LENGTH:					
STORAGE LENGTH:					
TOTAL TURN LANE LENGTH:					

MOVEMENT:					
VOLUME:					
% OF APPROACH VOLUME:					
LANE GROUP:					
LANE GROUP VOLUME:					
NUMBER OF LANES:					
VEHICLES PER CYCLE:					
CONTROLLING LANE GROUP:					
TAPER LENGTH:					
STORAGE LENGTH:					
TOTAL TURN LANE LENGTH:					

MOVEMENT:					
VOLUME:					
% OF APPROACH VOLUME:					
LANE GROUP:					
LANE GROUP VOLUME:					
NUMBER OF LANES:					
VEHICLES PER CYCLE:					
CONTROLLING LANE GROUP:					
TAPER LENGTH:					
STORAGE LENGTH:					
TOTAL TURN LANE LENGTH:					

RECOMMENDED TURN LANE LENGTHS INCLUDE 50' DIVERGING TAPER

TURN LANE LENGTH CALCULATIONS

DESIGN YEAR 2045 'BUILD' TRAFFIC VOLUMES - PM PEAK HOUR

LORAIN ROAD / ROOT ROAD

ANTICIPATED CYCLE LENGTH: 120 SEC.

NB ROOT ROAD

DESIGN SPEED: 35 MPH

MOVEMENT:	LEFT		THRU		RIGHT
VOLUME:	99		317		252
% OF APPROACH VOLUME:	14.8%		47.5%		37.7%
LANE GROUP:	LEFT		THRU		
LANE GROUP VOLUME:	99		317		
NUMBER OF LANES:	1		1		
VEHICLES PER CYCLE:	4		11		
CONTROLLING LANE GROUP:					
TAPER LENGTH:	50		50		
STORAGE LENGTH:	175		400		
TOTAL TURN LANE LENGTH:	***225***		***450***		

MOVEMENT:					
VOLUME:					
% OF APPROACH VOLUME:					
LANE GROUP:					
LANE GROUP VOLUME:					
NUMBER OF LANES:					
VEHICLES PER CYCLE:					
CONTROLLING LANE GROUP:					
TAPER LENGTH:					
STORAGE LENGTH:					
TOTAL TURN LANE LENGTH:					

MOVEMENT:					
VOLUME:					
% OF APPROACH VOLUME:					
LANE GROUP:					
LANE GROUP VOLUME:					
NUMBER OF LANES:					
VEHICLES PER CYCLE:					
CONTROLLING LANE GROUP:					
TAPER LENGTH:					
STORAGE LENGTH:					
TOTAL TURN LANE LENGTH:					

MOVEMENT:					
VOLUME:					
% OF APPROACH VOLUME:					
LANE GROUP:					
LANE GROUP VOLUME:					
NUMBER OF LANES:					
VEHICLES PER CYCLE:					
CONTROLLING LANE GROUP:					
TAPER LENGTH:					
STORAGE LENGTH:					
TOTAL TURN LANE LENGTH:					

RECOMMENDED TURN LANE LENGTHS INCLUDE 50' DIVERGING TAPER