

Engineering Fee Paid: \$ 4,440.00  
Receipt No.: 144588  
 Cash  Check - Check No.: 00121613  
(See attached for description of fees.)

Planning Commission & Bldg. Admin. Fees: \$ 308.00  
Receipt No.: \_\_\_\_\_  
 Cash  Check - Check No.: 00121612  
(See attached for description of fees.)



**RECEIVED** CITY OF NORTH RIDGEVILLE PLANNING COMMISSION  
**REQUEST FOR ACTION**

Received: OCT 05 2020 Date Released to Planning Commission: \_\_\_\_\_  
Date of Planning Commission Meeting: 11/10/2020 (Unless otherwise notified.)

**APPLICANT INFORMATION AND REQUEST**

APPLICANT: K. HOVANNIAN MEADOW LAKES, LLC PROPERTY OWNER: K. HOVANNIAN MEADOW LAKES, LLC  
COMPANY NAME: SAME ADDRESS: 3296 COLUMBIA RD.  
ADDRESS: 3296 COLUMBIA RD CITY / STATE: RIDGEFIELD, OH ZIP: 44286  
CITY / STATE: RIDGEFIELD, OH ZIP: 44286 PHONE NO.: 440-520-4446  
PHONE NO.: 440-520-4446 SIGNATURE: \_\_\_\_\_  
SIGNATURE: \_\_\_\_\_ (Owner's original signature must be submitted with application.)  
EMAIL ADDRESS: TSHAFER@KHOV.COM

Please provide an email address, fax number or mailing address to send Administrative comments in advance of the meeting.

LOCATION OF PROPERTY/ADDRESS: WHITE FEATHER AVE. NORTH  
PERMANENT PARCEL NO.: 0700033122003 ZONING OF PROPERTY: PCB  
ZONING OF ADJACENT PROPERTY TO: NORTH PCB EAST R1 SOUTH B2 WEST PCB  
DESCRIPTION OF REQUEST: APPROVAL OF FINAL PLAT OF PLOT 18 OF THE MEADOW LAKES SUBDIVISION

Have the Planning Commission or Board of Zoning and Building Appeals considered any prior request concerning this property? Yes  No

If yes, list dates and nature of each: APPROVAL OF PRELIMINARY PLAT & PARTIAL PLAT OF THIS PARCEL RECORDED ON 4/6/20

On the attached form, list the current record title owners(s) adjacent to the property of request. Include on this list the record title owner(s) name(s), permanent parcel number(s) and mailing address(es). Adjacent properties shall include those properties bordering to the north, south, east, west, across a street from the property involved and those properties meeting corners of the property involved.

In the event of property transfers, the applicant shall be responsible for providing an updated list of current adjacent record title owner(s) to the office of the Clerk of Council twenty-five days prior to the date of any public hearing when the applicant will appear on the agenda.

**PLANNING COMMISSION USE ONLY:**  APPROVED  DISAPPROVED

All approvals are conditional until applicant fully meets the requirements of applicable City ordinances enforced by the Chief Building Official, City Engineer, Fire Department and Police Department with respect to safety and design.

Board of Building & Zoning Appeals Approval Required  
 Conditions as set forth by the Commission on this date are: \_\_\_\_\_

Date: \_\_\_\_\_ Signature: \_\_\_\_\_  
(Presiding Officer at Meeting)

Return completed form to Building Dept., 7307 Avon Belden Road, North Ridgeville, Ohio, 44039 after Commission action.

**TO BE FILLED OUT BY APPLICANT**

I, CHARLES J. VANNOY, JR. (Print Name)  (Signature)

verify that the following are the names, mailing addresses and permanent parcel numbers of the current record title owners adjacent to the property of request for:

Applicant: K. HOUNANIAN MEADOW LAKES, LLC


Owner: K. HOUNANIAN MEADOW LAKES, LLC

Project Address: \_\_\_\_\_

THE FOLLOWING INFORMATION MAY BE OBTAINED AT THE LORAIN COUNTY AUDITOR'S OFFICE,  
ADMINISTRATION BUILDING, 226 MIDDLE AVENUE, ELYRIA, OHIO 44035.  
PHONE: 440-329-5207 WEBSITE: WWW.LORAINCOUNTY.COM/AUDITOR

	ADJACENT PROPERTY OWNER / ADDRESS	PARCEL NUMBER
1	RIDGE MINERALS, LLC CENTER RIDGE RD. NORTH RIDGEVILLE, OH 44039	07000 33101 028
2	↓	07000 33101 035
3		07000 33101 032
4		37265 AMBERWAY NORTH RIDGEVILLE, OH 44039 K. HOUNANIAN OF OHIO LLC.
5	37270 AMBERWAY NORTH RIDGEVILLE, OH 44039 K. HOUNANIAN OF OHIO, LLC	07000 33119042
6	37257 WHITE FEATHER AVE. NORTH RIDGEVILLE, OH 44039 K. HOUNANIAN OF OHIO, LLC	07000 33119006
7	37268 WHITE FEATHER AVE. NORTH RIDGEVILLE, OH 44039 K. HOUNANIAN OF OHIO, LLC	07000 33122002
8	6911 HATCHING WAY NORTH RIDGEVILLE, OH 44039 K. HOUNANIAN OF OHIO LLC.	07000 33122001
9	6912 HATCHING WAY, NORTH RIDGEVILLE, OH 44039 K. HOUNANIAN OF OHIO, LLC	07000 33118051
10	37304 WHITE FEATHER AVE. NORTH RIDGEVILLE, OH 44039 K. HOUNANIAN OF OHIO, LLC	07000 33118049

**SEE REVERSE SIDE FOR ADDITIONAL LISTINGS.**

<b>OFFICE USE ONLY</b>	
CBO Verification By: 	Date / Time Stamp: _____
BZA / PC Verification By: _____	

	<u>ADJACENT PROPERTY OWNER/ADDRESS</u>	<u>PARCEL NUMBER</u>
✓11	37516 WHITE FEATHER AVE. NORTH RIDGEVILLE, OH 44039 K. HOVNANIAN OF OHIO, LLC	0700033118048
✓12	37528 WHITE FEATHER AVE. NORTH RIDGEVILLE, OH 44039 K. HOVNANIAN OF OHIO, LLC	0700033118047
✓13	K. HOVNANIAN MEADOW LAKES, LLC REAL LAND NORTH RIDGEVILLE, OH 44039 "BLOCK DDDDDDD"	0700033117025
✓14	K. HOVNANIAN MEADOW LAKES, LLC REAL LAND NORTH RIDGEVILLE, OH 44039 "BLOCK CCCCCC"	0700033117024
✓15	K. HOVNANIAN MEADOW LAKES, LLC REAL LAND NORTH RIDGEVILLE, OH 44039 "BLOCK BBBBDD"	0700033120001
16	37307 AMBER WAY K. HOVNANIAN OF OHIO LLC	0700033103047
✓17	37325 AMBER WAY K. HOVNANIAN OF OHIO LLC	0700033103048
✓18	37343 AMBER WAY K. HOVNANIAN OF OHIO LLC	0700033103049
✓19	37355 AMBER WAY K. HOVNANIAN OF OHIO LLC	0700033103050
✓20	37367 AMBER WAY K. HOVNANIAN OF OHIO LLC	0700033103051
21		
22		
23		
24		
25		
26		

PLEASE COPY THIS PAGE FOR ADDITIONAL LISTINGS OF ADJACENT PROPERTY OWNERS.

SUBDIVISION: MEADOW LAKES PHASE 18

DATE: 10/5/20

**FINAL PLAT APPROVAL: §1224.02**

The following item(s) (do, does, does not) conform with the requirements of the North Ridgeville City Subdivision Regulations. Those items not conforming are explained on the final page.

	Included	Not Included	Item
1	X		Application with names of adjacent parcel owners, parcel numbers and addresses: §1210.04
2	X		Preliminary plan approval on (date): <u>4/6/20</u> §1224.05(b)(2)
3	X		Subdivision plat drawn to scale of not less than 100 feet to the inch. If more than 2 sheets, an index sheet of same dimensions must be filed with the entire subdivision on 1 sheet with all areas shown on other sheets indicated. Drawings shall be held to a minimum of 18 inches by 24 inches and a maximum of 24 inches by 36 inches outside dimensions; and must be drawn using India ink: §1224.02(a)
4	X		The final plan shows boundary lines of the area being subdivided in heavy lines with accurate distances and bearings, including original lot, township, corporations and county lines and road center lines: §1224.02(a)(1)
5	X		The final plan shows property lines of all proposed streets with their widths, names, bearings and existing sanitary and storm sewers, water mains, culverts and other underground structures within the tract and adjacent thereto: §1224.02(a)(2)
6	X		The final plan shows the accurate boundary lines of all grounds for public use and the acreage of the same: §1224.02(a)(3)
7	X		The final plan shows all common boundary corners of all adjoining lands and adjacent streets with their widths and names, the names of adjoining subdivisions and the name of record owners of adjoining parcels of unplatted land: §1224.02(a)(4)
8	X		The final plan shows all lot lines with as many bearings as necessary to describe each line and a system for identification of lots, blocks and other areas: §1224.02(a)(5)
9	X		The final plan shows easements for public uses, services or utilities and their dimensions: §1224.02(a)(6)
10	X		The final plan shows all dimensions, linear and angular, boundary locations, lots, streets, easements and areas for public or private uses, expressed in decimals of a foot and the number of acres of each reserve, park, playground and other public areas: §1224.02(a)(7)
11	X		The final plan shows the radii and chords, points of tangency, control angles for all curvilinear street center lines and radii for all rounded corners: §1224.02(a)(8)
12	X		The final plans shows all arcs, chords lengths, bearings of chords and points of tangency of the property lines of the curvilinear lines: §1224.02(a)(9)
13	X		The name of the subdivision and a description of the property subdivided, showing its location and extent, points of compass, scale of plan, dedication of streets and other public open spaces, and he names of the owner and subdivider, together with the appropriate evidence of ownership of the subdivision: §1224.02(a)(10)

	Included	Not Included	Item
14	X		Certification by a surveyor, licensed or registered in the state, to the effect that the plan represents a survey made by him/her in which the traverse of the exterior boundaries of the tract and of each block, when computed from field measurements of the ground, closed within a limit of error of 1 foot to 10,000 feet of the perimeter before balancing the survey, and that all the required survey monuments are correctly shown thereon and that those which are necessary for construction of improvements are in place on the site, with any remaining survey monuments to be properly placed upon the completion of construction: §1224.02(a)(11)
15	X		Proper acknowledgement of consent of the plat by all parties having any record, legal right, title or interest in the property: §1224.02(a)(13)
16	X		Building setback lines with dimensions to be shown on plan: §1224.02(a)(14)
17	X		A copy of the preliminary title report: §1224.02
18	X		A copy of improvement plans, if any, along with a subdivider's agreement, construction drawings, title sheet, plan view and profile view, engineering details, estimates of quantities and materials: §1228.01(a) through (h)
19	X		10 copies of the subdivision plat: §1224.05(b)(2)A
20	X		A copy of the certificate from City Engineer that all improvements have been installed or a <u>performance agreement and bond</u> have been filed to secure the construction: §1224.05(b)(2)A 1 and 2

**PLEASE NOTE THAT THIS CHECK LIST DOES NOT SUPERSEDE CITY ORDINANCES. PLEASE MAKE SURE YOU UNDERSTAND WHAT IS REQUIRED TO BE SUBMITTED TO PLANNING COMMISSION. THE APPLICATION MAY NOT BE ACCEPTED BY PLANNING COMMISSION IF ALL REQUIRED INFORMATION, PURSUANT TO CITY ORDINANCES, IS NOT SUBMITTED WITH THE APPLICATION.**

**CITY OF NORTH RIDGEVILLE PLANNING COMMISSION  
RECOMMENDATIONS**

Name of Applicant:	K. Hovnanian Meadow Lakes, LLC
Name of Owner:	K. Hovnanian Meadow Lakes, LLC
Date Submitted for Consideration:	10-05-20
Date to Return to Planning Commission:	10-15-20
Regarding: Meadow Lakes Subdivision No. 18 – Final Plat	

**RECOMMENDATIONS:**

1. Meadow lakes Subdivision No. 18 has 47 cluster lots on 15.0391 acres with a density of 3.1215 (47 lots divided by 15.0391 acres = 3.125 density). Density is compliance is determined at the final phase of Meadow Lakes Subdivision.
2. Meadow Lakes Subdivision No. 18 has 305 open space (4.6509 open space acres divided by 15.0391 total acres = 0.30). Open space compliance will be determined at final phase of Meadow Lakes Subdivision.
3. Sublot 1617 and 1634 second front yard setback shall be minimum 20 feet.
4. All else appears code compliant.

(use additional sheets if necessary)

Department Head Signature & Title: \_\_\_\_\_

 CBO

Form prepared by the Office of the Clerk of Council 6-30-99. Amended 12-13-2005.

Comments and recommendations by Administrative Officers, if any, shall be forwarded to the Commission Secretary not later than five (5) business days prior to the Commission meeting at which action is scheduled to be taken on the matter. (Planning Commission By-Laws, Article V, Section 3)

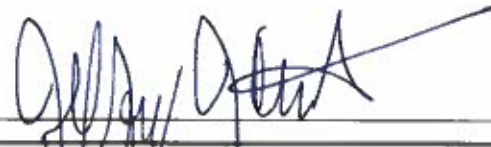
Comments received after the deadline will be distributed to the Members the night of the meeting.

**CITY OF NORTH RIDGEVILLE PLANNING COMMISSION  
RECOMMENDATIONS**

Name of Applicant:	K. Hovnanian Meadows Lakes, LLC 3296 Columbia Rd, Richfield, OH
Name of Owner:	Same
Date of Planning Commission Meeting:	Tuesday, November 10, 2020
Date to Return to Deputy Clerk of Council:	Thursday, October 29, 2020
Regarding:	Final plat approval of Phase 18 of the Meadow Lakes Subdivision; located at White Feather Ave. North, in a PCD District Permanent Parcel No. 07-00-033-122-003

**Recommendations:**

(Use additional sheets if necessary.)

**Department Head Signature:**  \_\_\_\_\_ **Title:** Safety-Service Director

Form prepared by the Office of the Clerk of Council 06-30-1999. Amended 05-30-2019.

**Comments and recommendations by Administrative Officers, if any, shall be forwarded to the Commission Secretary not later than five (5) business days prior to the Commission meeting at which action is scheduled to be taken on the matter.**  
(Planning Commission By-Laws, Article V, Section 3)

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**CITY OF NORTH RIDGEVILLE PLANNING COMMISSION  
RECOMMENDATIONS**

Name of Applicant:	K. Hovnanian Meadows Lakes, LLC 3296 Columbia Rd, Richfield, OH
Name of Owner:	Same
Date of Planning Commission Meeting:	Tuesday, November 10, 2020
Date to Return to Deputy Clerk of Council:	Thursday, October 29, 2020
Regarding:	Final plat approval of Phase 18 of the Meadow Lakes Subdivision; located at White Feather Ave. North, in a PCD District Permanent Parcel No. 07-00-033-122-003

**Recommendations:**

1. Since the streets are public streets, Ordinance 3862-2002 applies. The City is required to install all traffic control devices in new subdivisions and charge the developer for same.
2. Street lighting is required per CNRO Section 1226.15.
3. Detailed improvement plans and stormwater management calculations have been approved by the Engineering Department.

(Use additional sheets if necessary.)

**Department Head Signature:**  **Title:** City Engineer

Form prepared by the Office of the Clerk of Council 06-30-1999. Amended 05-30-2019.

**Comments and recommendations by Administrative Officers, if any, shall be forwarded to the Commission Secretary not later than five (5) business days prior to the Commission meeting at which action is scheduled to be taken on the matter.**  
(Planning Commission By-Laws, Article V, Section 3)

**Comments received after the deadline will be distributed to the Members the night of the meeting.**



# MEADOW LAKES SUBDIVISION NO. 18

SITUATED IN THE CITY OF NORTH RIDGEVILLE, COUNTY OF LORAIN AND STATE OF OHIO  
AND KNOWN AS BEING PART OF ORIGINAL RIDGEVILLE TOWNSHIP LOT 33

## OWNERS CERTIFICATION AND ACCEPTANCE:

SITUATED IN THE CITY OF NORTH RIDGEVILLE, COUNTY OF LORAIN, STATE OF OHIO, AND BEING PART OF ORIGINAL RIDGEVILLE TOWNSHIP LOT 33, CONTAINING 34.6163ACRES, ALL OF WHICH LIE IN ORIGINAL RIDGEVILLE TOWNSHIP LOT 33.

THE UNDERSIGNED OWNER, K. HOVNANIAN MEADOW LAKES, LLC, HEREBY CERTIFIES THAT THIS PLAT CORRECTLY REPRESENTS MEADOW LAKES SUBDIVISION NO. 18, A SUBDIVISION OF SUBLOTS 1595 TO 1641 INCLUSIVE, AND DOES HEREBY ACCEPT THIS PLAT OF THE SAME AND DEDICATES FOREVER TO PUBLIC USE AS SUCH, ALL OR PARTS OF THE STREETS AND EASEMENTS SHOWN HEREIN AND NOT HERETOFORE DEDICATED.

THE UNDERSIGNED FURTHER AGREES THAT ANY USE OR IMPROVEMENTS MADE ON THIS LAND SHALL BE IN CONFORMITY WITH ALL EXISTING PLATTING, HEALTH OR OTHER LAWFUL RULES AND REGULATIONS INCLUDING THE APPLICABLE OFF-STREET PARKING AND LOADING REQUIREMENTS OF THE CITY OF NORTH RIDGEVILLE, OHIO, FOR THE BENEFIT OF THEMSELVES AND ALL OTHER SUBSEQUENT PARTIES TAKING TITLE FROM, UNDER OR THROUGH THE UNDERSIGNED.

THE DIMENSIONS OF THE SUBLOTS AND STREETS ARE SHOWN 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.

K. HOVNANIAN MEADOW LAKES, LLC

BY CHUCK VANNOY

REGIONAL PRESIDENT

## NOTARY:

STATE OF OHIO  
COUNTY OF \_\_\_\_\_

BEFORE ME, A NOTARY PUBLIC, IN AND FOR SAID COUNTY AND STATE DID PERSONALLY APPEAR THE ABOVE SIGNED OFFICER OF K. HOVNANIAN OF OHIO, LLC, WHO ACKNOWLEDGED THE SIGNING OF THIS PLAT TO BE THEIR FREE ACT AND DEED BOTH INDIVIDUALLY AND AS SAID OFFICER.

IN WITNESS THEREOF I HAVE HEREUNTO SET MY HAND AND OFFICIAL SEAL

THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, \_\_\_\_\_

NOTARY PUBLIC

MY COMMISSION EXPIRES: \_\_\_\_\_

## ACREAGE SUMMARY:

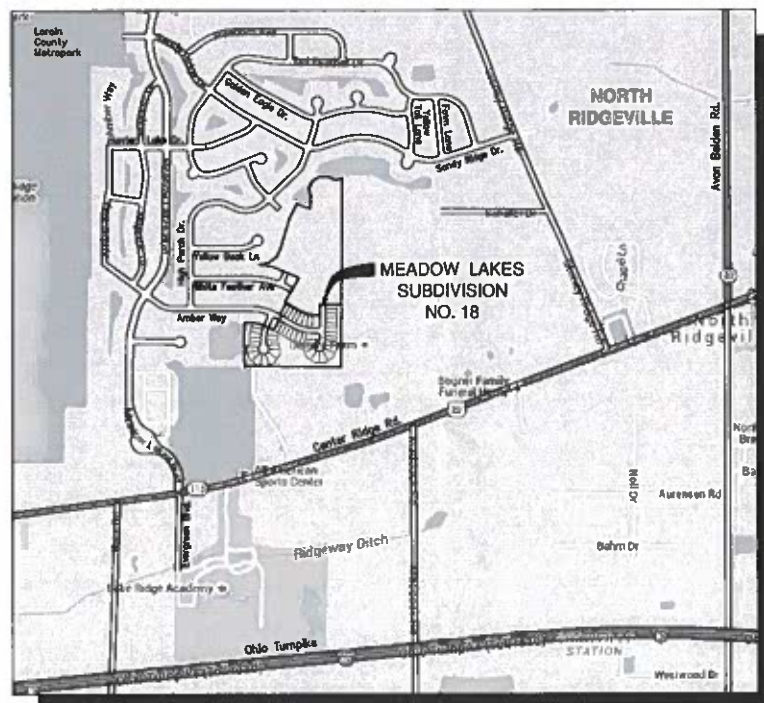
SUBLOTS 1495 THROUGH 1594

SUBLOTS 1595 TO 1641	8.3270 Ac.
RIGHT-OF-WAY	2.0612 Ac.
BLOCK 'AAAAAAA'	4.4382 Ac.
BLOCK 'BBBBBBB'	0.2127 Ac.
REMAINDER '18A' MEADOW LAKES NO. 18	19.5772 Ac.
<b>TOTAL</b>	<b>34.6163 Ac.</b>

GRAND TOTAL MEADOW LAKES SUBDIVISION NO. 18 = 34.6163 Ac.

## DRAINAGE EASEMENTS:

K. HOVNANIAN MEADOW LAKES, LLC, THE OWNER OF THE WITHIN PLATTED LAND DOES HEREBY GRANT UNTO THE MEADOW LAKES SUBDIVISION HOMEOWNERS ASSOCIATION PRESENT AND FUTURE RESPONSIBILITY FOR "DRAINAGE EASEMENTS" AS SHOWN HEREON, OUTSIDE OF THE PUBLIC WAY, INCLUDING BUT NOT LIMITED TO GRADING, DRAINAGE, DRAINAGE PIPING AND DRAINAGE STRUCTURES AND IN ACCORDANCE WITH THE RECORD DESCRIPTION OF COVENANTS, CONDITIONS, RESTRICTIONS AND RESERVATION OF EASEMENTS FOR MEADOW LAKES HOMEOWNERS ASSOCIATION, AS MAY BE AMENDED FROM TIME TO TIME.



VICINITY MAP  
NOT TO SCALE

## INDEX OF SHEETS:

- 1 ... COVER SHEET
- 2 ... OVERALL
- 3 ... SUBLOTS 1595 THROUGH 1609
- 4 ... SUBLOTS 1610 THROUGH 1617
- 5 ... SUBLOTS 1626 THROUGH 1641
- 5 ... SUBLOTS 1617 THROUGH 1628

## LOT NUMBERS:

MEADOW LAKES SUBDIVISION NO. 18  
CONTAINS 47 LOTS NUMBERED 1595 TO 1641 INCLUSIVE

## UTILITY EASEMENTS:

THE OWNER OF THE WITHIN PLATTED LAND DOES HEREBY GRANT UNTO UTILITIES SPECIFICALLY INCLUDING BUT NOT LIMITED TO:

THE CITY OF NORTH RIDGEVILLE, OHIO EDISON, WINDSTREAM ENGINEERING, TIME WARNER CABLE, THE CITY OF AVON LAKE UTILITIES AND COLUMBIA GAS, THEIR SUCCESSORS AND ASSIGNS (HEREIN AFTER REFERRED TO AS THE GRANTEE) A PERMANENT RIGHT-OF-WAY AND EASEMENT TWELVE (12) FEET IN WIDTH, UNDER, OVER AND THROUGH ALL SUBLOTS AND ALL LANDS OWNED BY THE GRANTEE, SHOWN HEREON AND PARALLEL WITH AND CONTIGUOUS TO THE PUBLIC THOROUGHFARES, AND ALSO UPON LANDS AS DEPICTED HEREON TO CONSTRUCT, PLACE, OPERATE, MAINTAIN, REPAIR, RECONSTRUCT, RELOCATE, RENEW, SUPPLEMENT OR REMOVE SUCH UNDERGROUND ELECTRIC AND COMMUNICATIONS CABLES, DUCTS, CONDUITS, PIPES, SURFACE OR BELOW GROUND MOUNTED TRANSFORMERS AND PEDESTALS, CONCRETE PADS AND OTHER FACILITIES AS ARE DEEMED NECESSARY OR CONVENIENT BY THE GRANTEE FOR DISTRIBUTING, TRANSPORTING, AND TRANSMITTING ELECTRICITY, GAS SERVICE AND COMMUNICATION SIGNALS FOR PUBLIC AND PRIVATE USE AT SUCH LOCATION AS THE GRANTEE 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 OR OPERATION OF SAID ELECTRIC, GAS SERVICE 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 PROPOSES OF THE RIGHT-OF-WAY AND EASEMENT GRANT.

THE PROPOSED 20 FOOT WIDE STORM SEWER EASEMENTS ARE DEDICATED TO THE CITY OF NORTH RIDGEVILLE FOR EMERGENCY PURPOSES FOR MAINTENANCE OF THE STORM SEWER SYSTEM.

## GRANTOR / OWNER / DEVELOPER:

**K. HOVNANIAN MEADOW LAKES, LLC**  
FORMERLY KNOWN AS K. HOVNANIAN OSTER HOMES, LLC  
AS PER OHIO SECRETARY OF STATE DOC. NUMBER 201613700624

OHIO DIVISION  
3296 COLUMBIA ROAD  
RICHFIELD, OH 44286  
PHONE: 440.985.7325  
CONTACT: CHRIS BROWN

## APPROVALS:

### CITY ENGINEER:

THIS PLAT IS APPROVED BY THE CITY ENGINEER OF THE CITY OF NORTH RIDGEVILLE

THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, \_\_\_\_\_

CITY ENGINEER

### CITY COUNCIL:

THIS PLAT IS APPROVED BY THE COUNCIL OF THE CITY OF NORTH RIDGEVILLE

THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, \_\_\_\_\_

MAYOR

### PLANNING COMMISSION:

THIS PLAT IS APPROVED BY THE PLANNING COMMISSION OF THE CITY OF NORTH RIDGEVILLE

THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, \_\_\_\_\_

CITY PLANNING COMMISSION CHAIRPERSON  
(OR RESPONSIBLE OFFICIAL)

## SURVEYOR'S NOTE:

THIS SURVEY HAS BEEN PERFORMED WITHOUT BENEFIT OF A TITLE REPORT AND MAY NOT SHOW ALL EASEMENTS OR OTHER ENCUMBRANCES THAT AFFECT THE SUBJECT PROPERTY.

## SURVEYOR'S CERTIFICATION:

THIS IS TO CERTIFY THAT, AT THE REQUEST OF THE OWNER, I HAVE SURVEYED AND PLATTED MEADOW LAKES SUBDIVISION NO. 18, AS SHOWN HEREON AND CONTAINING 34.6163 ACRES OF LAND IN ORIGINAL RIDGEVILLE TOWNSHIP LOT 33 IN THE CITY OF NORTH RIDGEVILLE, LORAIN COUNTY, OHIO. AT ALL POINTS INDICATED AS "P", IRON PIN MONUMENTS HAVE OR WILL BE SET UPON COMPLETION OF CONSTRUCTION ACTIVITIES. BEARINGS ARE BASED ON STATE PLANE, OHIO NORTH, AND ARE SHOWN TO DENOTE ANGLES ONLY. DISTANCES ARE SHOWN IN FEET AND DECIMAL PARTS THEREOF. THE PLAN REPRESENTS A SURVEY PERFORMED IN SUCH A MANNER THAT THE LINEAR ERROR IN THE DISTANCE BETWEEN ANY TWO (2) POINTS DOES NOT EXCEED THE LIMITS OF ONE (1) FOOT TO TEN THOUSAND (10,000) FEET (ALLOWABLE LINEAR ERROR = REPORTED DISTANCE DIVIDED BY TEN THOUSAND) AS PER SECTION 4733-37 OF THE OHIO ADMINISTRATIVE CODE AND ADJACENT PROPERTY DESCRIPTIONS HAVE BEEN CONSIDERED IN PERFORMING THIS SURVEY. ALL OF WHICH I CERTIFY TO BE CORRECT TO THE BEST OF MY KNOWLEDGE.

ALEX E. MARKS, P.S. 8616

DATE

ATWELL, LLC  
7100 E. PLEASANT VALLEY ROAD, SUITE 220  
INDEPENDENCE, OHIO 44131  
440.349.2000



Know what's below.

Call before you dig.

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE MANNER ONLY AND HAVE NOT BEEN INDIVIDUALLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL UTILITIES PRIOR TO ANY CONSTRUCTION WORK, AND ADVISE TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCURRED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE: CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CITY ENGINEER DOES NOT ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK OR PERSONS ENGAGED IN THE WORK, OR ANY OTHER PERSONS.

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**ATWELL**  
866.850.4200 www.atwell-group.com  
7100 E. PLEASANT VALLEY ROAD, SUITE 220  
INDEPENDENCE, OHIO 44131  
440.349.2000



ORIGINAL RIDGEVILLE TOWNSHIP  
LOT 33  
CITY OF NORTH RIDGEVILLE  
LORAIN COUNTY, OHIO

K. HOVNANIAN HOMES LLC  
MEADOW LAKES  
SUBDIVISION NO. 18 PLAT  
COVER SHEET

DATE  
07/01/2020

REVISIONS

DR. BTS | CH. MS  
P.M. AM  
BOOK N/A  
JOB 18002341  
SHEET NO.  
1 of 5



Know what's below.  
Call before you dig.

THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN AS AN APPROXIMATE ONLY AND HAVE NOT BEEN INDICATED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE EXACT LOCATION OF ALL UTILITIES BEFORE ANY EXCAVATION WORK AND ADVICE TO BE OBTAINED FROM THE CITY AND ALL DAMAGES WHICH MIGHT BE OCCURRED BY THE CONTRACTOR SHALL BE PAID BY THE CONTRACTOR. THE CITY SHALL NOT BE RESPONSIBLE FOR ANY DAMAGES TO ANY UTILITIES OR FOR ANY OTHER PERSONS.

NOTICE: CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE ENGINEER SHALL BE CONSIDERED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK OF PERSONS EMPLOYED BY THE OWNER, OF ANY HEAVY STRUCTURES OR OF ANY OTHER PERSONS.

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**ATWELL**  
866.850.4200 www.atwell-group.com  
7100 E. PLEASANT VALLEY ROAD, SUITE 220  
INDIANAPOLIS, IN 46241

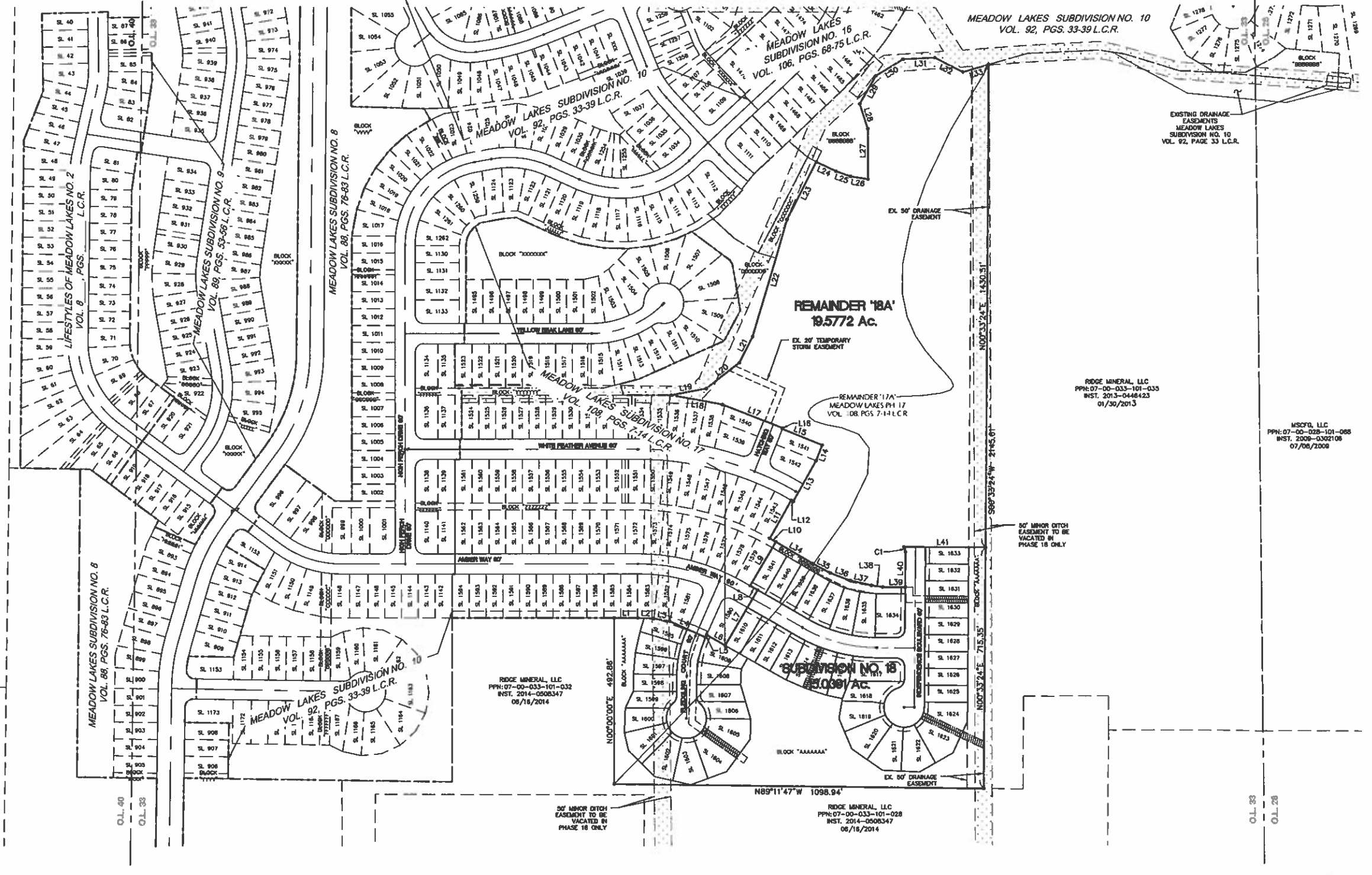


ORIGINAL RIDGEVILLE TOWNSHIP  
LOT 33  
CITY OF NORTH RIDGEVILLE  
LORAIN COUNTY, OHIO

CLIENT: K. HORMANIAN HOMES LLC  
MEADOW LAKES SUBDIVISION NO. 18 PLAT  
OVERALL

DATE: 07/01/2020

REVISIONS  
SCALE 0 75 150  
1" = 150 FEET  
DR. BTS | CH. MS  
P.L. AM  
BOOK N/A  
JOB 18002341  
SHEET NO. 2 of 5  
CAD FILE: 18002341P-01.PLT



**LEGEND**

●	5/8" BY 30" STEEL PIN SET WITH CAP "ATWELL"	CALC.	CALCULATED
■	5/8" BY 30" STEEL PIN SET WITH CAP IN MONUMENT BOX	OBS.	OBSERVED
■	MONUMENT BOX FOUND & USED	REC.	RECORD
○	MONUMENTATION FOUND AS NOTED AND SHOWN	S.F.	SQUARE FEET
○	MONUMENTATION FOUND AS NOTED AND SHOWN	AC.	ACRES
○	MONUMENTATION FOUND AS NOTED AND SHOWN	VOL.	VOLUME
---	CENTERLINE	PG.	PAGE
---	BUILDING SETBACK LINE	℄	CENTERLINE
---	UTILITY EASEMENT	R/W	RIGHT OF WAY
---	EXISTING PROPERTY LINE	PPN	PERMANENT PARCEL NUMBER
▨	PROPOSED EASEMENT	INST.	INSTRUMENT NUMBER

50' MINOR DITCH EASEMENT TO THE CITY OF NORTH RIDGEVILLE (ORD. 1150-76 PASSED 03-15-1976) (PORTIONS EXTINGUISHED/VACATED OR TO BE EXTINGUISHED/VACATED WITHIN SUBDIVISION LIMITS WHERE DRAINAGE IMPROVEMENTS ARE MADE AND AS INDICATED HEREON)

EXISTING 20' TEMPORARY STORM EASEMENT TO BE EXTINGUISHED/VACATED AS INDICATED HEREON

**LINE TABLE**

LINE #	BEARING	LENGTH
L1	N90°00'00"E	69.42'
L2	S86°59'26"E	48.39'
L3	S80°41'09"E	48.35'
L4	S86°01'39"E	117.79'
L5	N23°58'21"E	8.12'
L6	S60°01'17"E	63.53'
L7	N29°58'43"E	190.00'
L8	N60°01'17"W	25.14'
L9	N29°58'43"E	150.00'
L10	N60°01'17"W	20.68'
L11	N29°58'43"E	130.00'

**LINE TABLE**

LINE #	BEARING	LENGTH
L12	S60°01'17"E	7.03'
L13	N29°58'43"E	139.51'
L14	N21°40'47"E	50.00'
L15	N68°19'13"W	130.00'
L16	N21°40'47"E	2.76'
L17	N68°19'13"W	190.00'
L18	N79°40'35"W	156.04'
L19	N79°44'13"E	107.06'
L20	N51°59'45"E	124.29'
L21	N26°40'25"E	85.96'
L22	N16°31'22"E	361.80'

**LINE TABLE**

LINE #	BEARING	LENGTH
L23	N27°36'16"E	192.81'
L24	S64°58'35"E	65.01'
L25	S70°10'57"E	45.94'
L26	S80°23'42"E	52.09'
L27	N0°02'12"W	150.00'
L28	N17°34'55"W	77.28'
L29	N29°42'15"E	95.00'
L30	N58°39'33"E	95.00'
L31	N87°36'51"E	95.00'
L32	S63°25'50"E	95.00'
L33	N74°05'27"E	79.49'

**LINE TABLE**

LINE #	BEARING	LENGTH
L34	S60°01'17"E	129.32'
L35	S61°50'08"E	59.01'
L36	S69°10'05"E	63.89'
L37	S77°07'56"E	63.89'
L38	S81°06'51"E	33.49'
L39	S89°26'36"E	65.97'
L40	N0°33'24"E	105.00'
L41	S89°26'36"E	244.88'

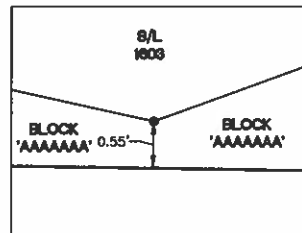
**CURVE TABLE**

CURVE #	LENGTH	RADIUS	DELTA	CHD. BEARING	CHORD	TANGENT
C1	15.88'	25.00'	36°23'27"	N17°38'20"W	15.61'	8.22'

# MEADOW LAKES SUBDIVISION NO. 18

SITUATED IN THE CITY OF NORTH RIDGEVILLE, COUNTY OF LORAIN AND STATE OF OHIO  
AND KNOWN AS BEING PART OF ORIGINAL RIDGEVILLE TOWNSHIP LOT 33

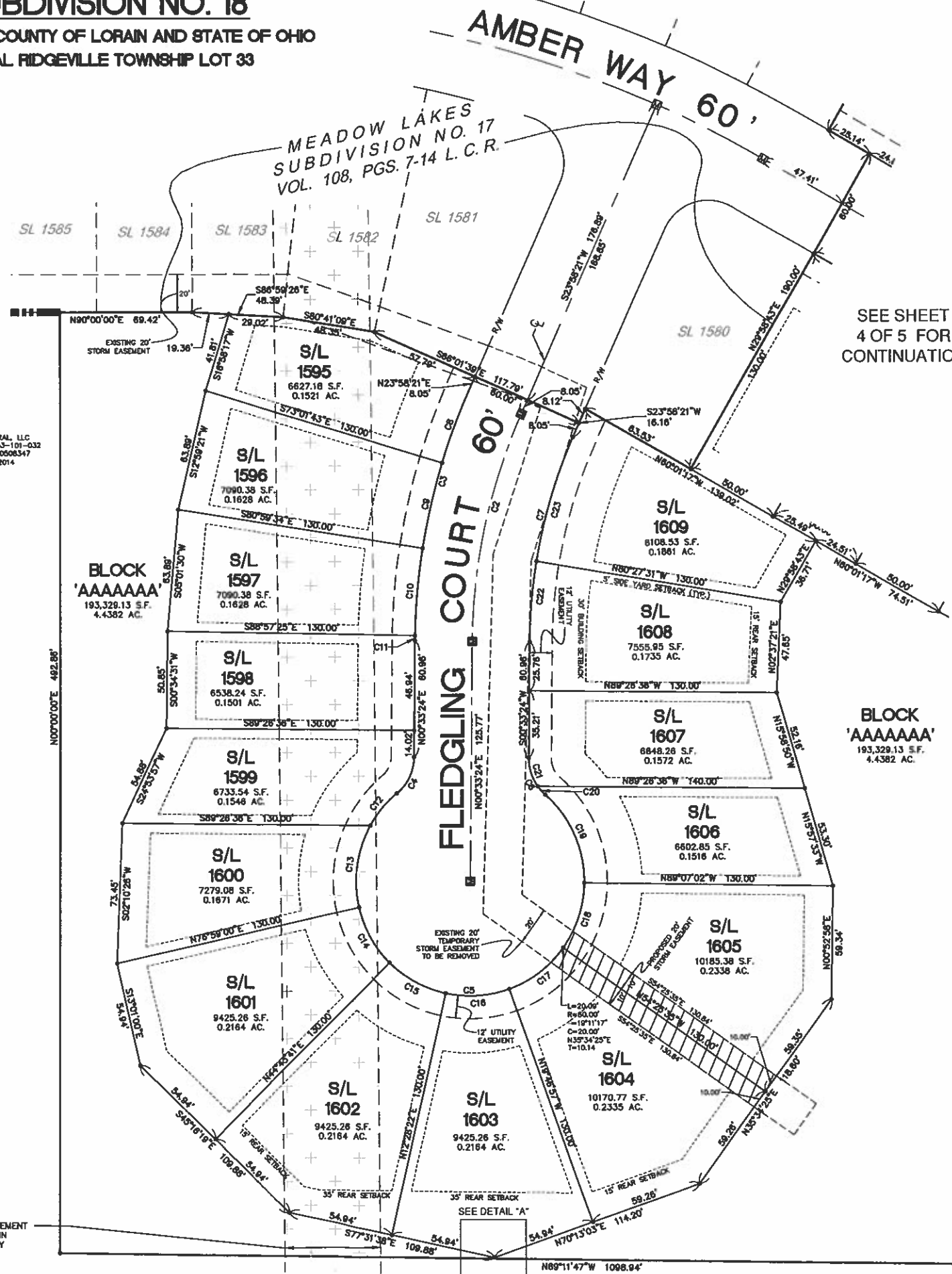
CURVE TABLE						
CURVE #	LENGTH	RADIUS	DELTA	CHD. BEARING	CHORD	TANGENT
C2	122.61'	300.00'	23°24'58"	N12°15'52"E	121.75'	62.17'
C3	134.87'	330.00'	23°24'58"	N12°15'52"E	133.83'	68.39'
C4	21.68'	25.00'	49°40'47"	N25°23'47"E	21.00'	11.57'
C5	292.54'	60.00'	279°21'34"	N89°26'36"W	77.65'	50.92'
C6	21.68'	25.00'	49°40'47"	S24°17'00"E	21.00'	11.57'
C7	110.35'	270.00'	23°24'58"	S12°15'52"W	109.58'	55.95'
C8	40.32'	330.00'	7°00'04"	N20°28'19"E	40.30'	20.19'
C9	45.87'	330.00'	7°57'51"	N12°59'21"E	45.83'	22.97'
C10	45.87'	330.00'	7°57'51"	N5°01'30"E	45.83'	22.97'
C11	2.80'	330.00'	0°29'11"	N0°47'56"E	2.80'	1.40'
C12	21.95'	60.00'	20°57'48"	N39°45'17"E	21.83'	11.10'
C13	44.29'	60.00'	42°17'22"	N8°07'41"E	43.29'	23.21'
C14	33.78'	60.00'	32°15'19"	N29°08'39"W	33.33'	17.35'
C15	33.78'	60.00'	32°15'19"	N61°23'58"W	33.33'	17.35'
C16	33.78'	60.00'	32°15'19"	S86°20'43"W	33.33'	17.35'
C17	36.28'	60.00'	34°38'39"	S52°53'44"W	35.73'	18.71'
C18	36.33'	60.00'	34°41'26"	S16°13'42"W	35.78'	18.74'
C19	52.37'	60.00'	50°00'22"	S24°07'13"E	50.72'	27.98'
C20	5.85'	25.00'	13°24'09"	S42°25'19"E	5.83'	2.94'
C21	15.83'	25.00'	36°16'38"	S17°34'55"E	15.57'	8.19'
C22	42.34'	270.00'	8°59'06"	S5°02'56"W	42.30'	21.21'
C23	88.00'	270.00'	14°25'52"	S16°45'25"W	87.83'	34.18'



DETAIL 'A'  
SCALE 1" = 1'

SEE SHEET 2 FOR LEGEND

50' MINOR DITCH EASEMENT TO BE VACATED IN PHASE 18 ONLY



Know what's below.  
Call before you dig.

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN ON AN APPROXIMATE BASIS ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE CONTRACTOR. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF ALL UTILITIES PRIOR TO ANY CONSTRUCTION WORK AND SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MAY BE INCURRED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND MARK ANY UTILITIES.

NOTICE: CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SAFETY OF THE WORK OF PERSONS EMPLOYED IN THE WORK OF ANY NEARBY STRUCTURES OR OF ANY OTHER PERSONS.

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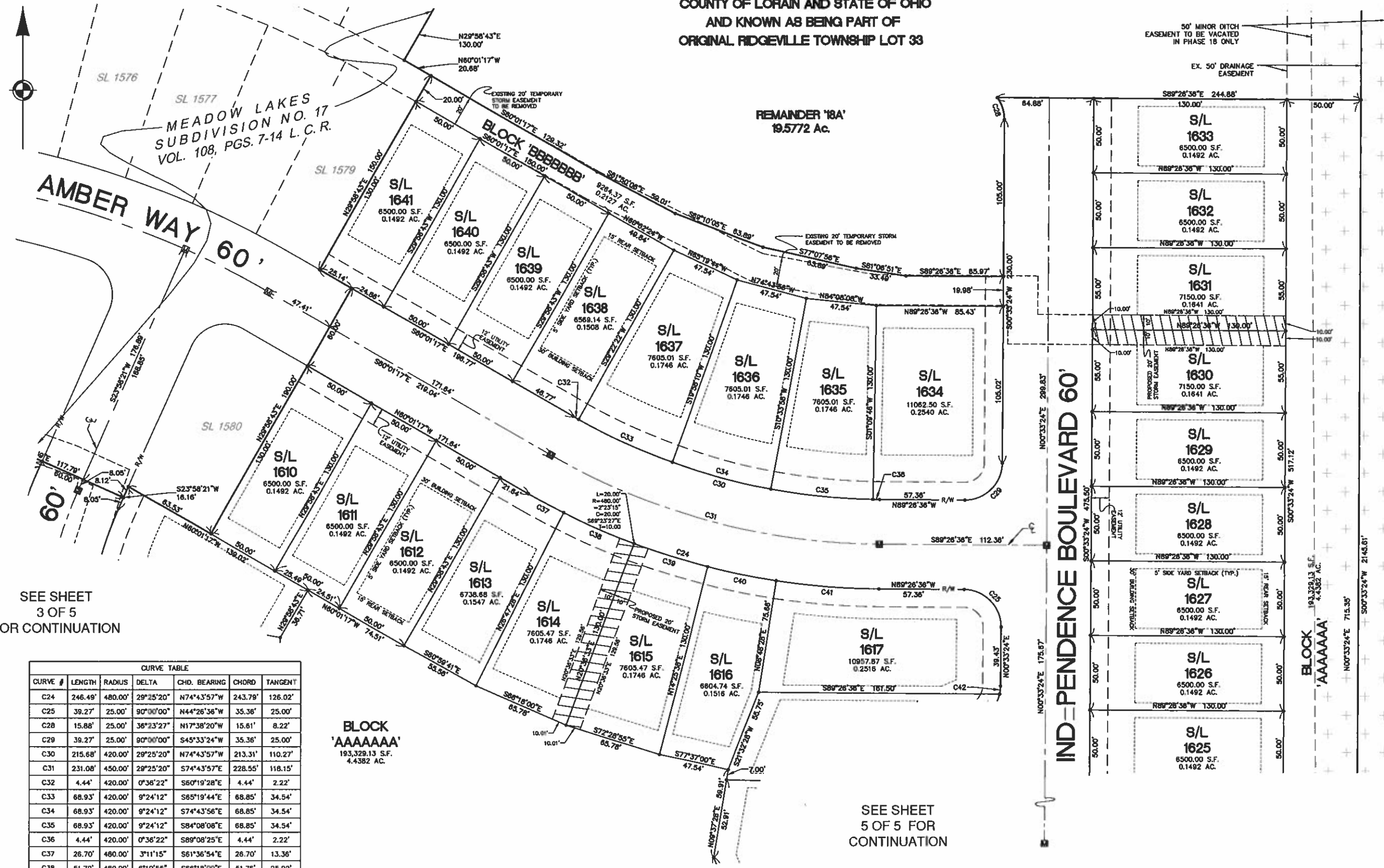
ATWELL  
866.850.4300 www.atwell-group.com  
7100 E. PLEASANT VALLEY ROAD, SUITE 230  
44033-2020

ORIGINAL RIDGEVILLE TOWNSHIP LOT 33	CITY OF NORTH RIDGEVILLE LORAIN COUNTY, OHIO
K. HORMANIAN HOMES LLC MEADOW LAKES SUBDIVISION NO. 18 PLAT SUBLOTS 1595 - 1609	
DATE 07/01/2020	
REVISIONS	
SCALE 0 15 30 1" = 30 FEET	
DR. BTS   CH. MS	
P.M. AM	
BOOK N/A	
JOB 18002341	
SHEET NO. 3 of 5	

CAD FILE: 18002341R-01\_P18.DWG

# MEADOW LAKES SUBDIVISION NO. 18

SITUATED IN THE CITY OF NORTH RIDGEVILLE,  
COUNTY OF LORAIN AND STATE OF OHIO  
AND KNOWN AS BEING PART OF  
ORIGINAL RIDGEVILLE TOWNSHIP LOT 33



SEE SHEET  
3 OF 5  
FOR CONTINUATION

CURVE TABLE						
CURVE #	LENGTH	RADIUS	DELTA	CHD. BEARING	CHORD	TANGENT
C24	246.49'	480.00'	29°25'20"	N74°43'57"W	243.79'	126.02'
C25	39.27'	25.00'	90°00'00"	N44°26'36"W	35.36'	25.00'
C28	15.88'	25.00'	36°23'27"	N17°38'20"W	15.61'	8.22'
C29	39.27'	25.00'	90°00'00"	S45°33'24"W	35.36'	25.00'
C30	215.68'	420.00'	29°25'20"	N74°43'57"W	213.31'	110.27'
C31	231.08'	450.00'	29°25'20"	S74°43'57"E	228.55'	118.15'
C32	4.44'	420.00'	0°36'22"	S60°19'28"E	4.44'	2.22'
C33	68.93'	420.00'	9°24'12"	S85°19'44"E	68.85'	34.54'
C34	68.93'	420.00'	9°24'12"	S74°43'56"E	68.85'	34.54'
C35	68.93'	420.00'	9°24'12"	S84°08'08"E	68.85'	34.54'
C36	4.44'	420.00'	0°36'22"	S89°08'25"E	4.44'	2.22'
C37	26.70'	480.00'	3°11'15"	S61°36'54"E	26.70'	13.36'
C38	51.79'	480.00'	6°10'55"	S66°18'00"E	51.76'	25.92'
C39	51.79'	480.00'	6°10'55"	S72°28'55"E	51.76'	25.92'
C40	47.08'	480.00'	5°37'10"	S78°22'57"E	47.06'	23.56'
C41	69.12'	480.00'	8°15'04"	S85°19'04"E	69.06'	34.62'
C42	5.52'	25.00'	12°39'11"	S6°52'59"W	5.51'	2.77'

SEE SHEET 2 FOR LEGEND

SEE SHEET  
5 OF 5  
FOR CONTINUATION

50' MINOR DITCH  
EASEMENT TO BE VACATED  
IN PHASE 18 ONLY

EX. 50' DRAINAGE  
EASEMENT



Know what's below.  
Call before you dig.

THE LOCATIONS OF EXISTING  
UNDERGROUND UTILITIES ARE  
SHOWN IN AN APPROXIMATE MANNER  
ONLY AND HAVE NOT BEEN  
INDEPENDENTLY VERIFIED BY THE  
OWNER OR HIS REPRESENTATIVE.  
THE CONTRACTOR SHALL BE RESPONSIBLE  
FOR THE EXACT LOCATION OF ALL  
EXISTING UTILITIES BEFORE  
CONDUCTING WORK AND SHALL BE  
FULLY RESPONSIBLE FOR ANY  
AND ALL DAMAGES WHICH MAY BE  
INCURRED BY THE CONTRACTOR'S  
FAILURE TO EXACTLY LOCATE AND  
MARK ALL UTILITIES.

NOTICE:  
CONSTRUCTION SITE SAFETY IS THE  
SOLE RESPONSIBILITY OF THE  
CONTRACTOR. THE OWNER  
ACCEPTS NO LIABILITY FOR ANY  
DAMAGES OR INJURIES TO  
PROPERTY OR PERSONS ARISING  
FROM THE WORK OF ANY DESIGNER  
OR CONTRACTOR. THE CONTRACTOR  
SHALL BE RESPONSIBLE FOR ANY  
DAMAGES OR INJURIES TO  
PROPERTY OR PERSONS ARISING  
FROM THE WORK OF ANY DESIGNER  
OR CONTRACTOR.

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ORIGINAL RIDGEVILLE TOWNSHIP  
LOT 33  
CITY OF NORTH RIDGEVILLE  
LORAIN COUNTY, OHIO

K. HOWANIAN HOMES LLC  
MEADOW LAKES  
SUBDIVISION NO. 18 PLAT  
SUBLOTS 1610 - 1617  
SUBLOTS 1626 - 1641

DATE  
07/01/2020

REVISIONS	
SCALE	0 15 30
1" = 30 FEET	
DR. BTS	CH. MS
P.M. AM	
BOOK	N/A
JOB	18002341
SHEET NO.	4 of 5

CAD FILE: 18022341R-01\_P181800.dwg

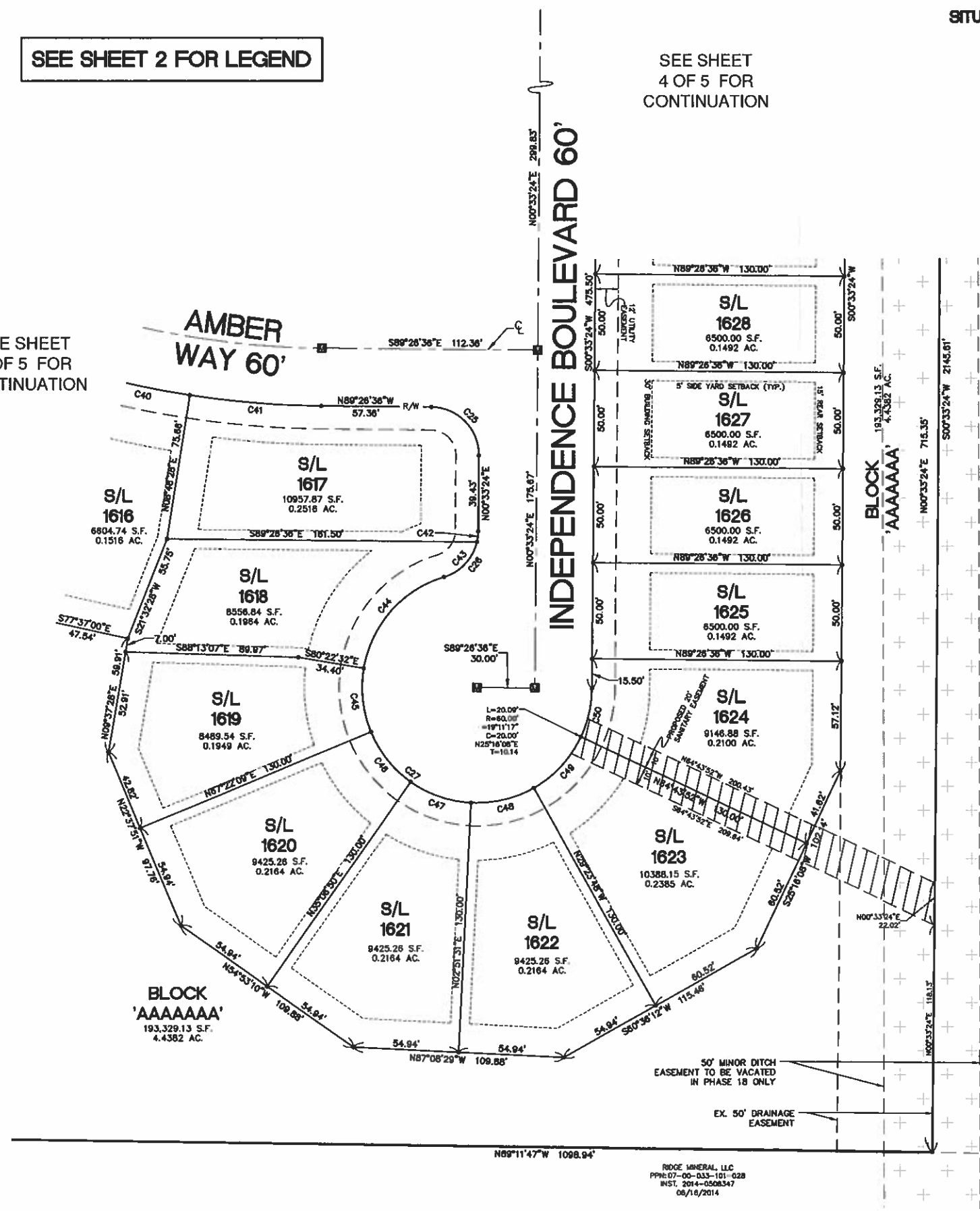


SEE SHEET 2 FOR LEGEND

SEE SHEET 4 OF 5 FOR CONTINUATION

**MEADOW LAKES SUBDIVISION NO. 18**  
 SITUATED IN THE CITY OF NORTH RIDGEVILLE, COUNTY OF LORAIN AND STATE OF OHIO  
 AND KNOWN AS BEING PART OF ORIGINAL RIDGEVILLE TOWNSHIP LOT 33

SEE SHEET 4 OF 5 FOR CONTINUATION



RIDGE GENERAL, LLC  
 PPH: 07-00-033-101-033  
 INST. 2013-0448423  
 01/30/2013

CURVE #	LENGTH	RADIUS	DELTA	CHD. BEARING	CHORD	TANGENT
C25	39.27'	25.00'	90°00'00"	N44°26'36"W	35.36'	25.00'
C26	31.81'	25.00'	72°53'43"	N37°00'15"E	29.70'	18.46'
C27	264.83'	60.00'	252°53'45"	N52°59'45"W	96.53'	81.24'
C40	47.08'	480.00'	5°37'10"	S78°22'57"E	47.06'	23.56'
C41	89.12'	480.00'	8°15'04"	S85°19'04"E	69.06'	34.82'
C42	5.52'	25.00'	12°39'11"	S8°52'59"W	5.51'	2.77'
C43	26.29'	25.00'	60°14'32"	S43°18'51"W	25.09'	14.50'
C44	68.84'	60.00'	63°49'39"	S41°32'17"W	63.44'	37.37'
C45	33.78'	60.00'	32°15'19"	S8°30'12"E	33.33'	17.35'
C46	33.78'	60.00'	32°15'19"	S38°45'31"E	33.33'	17.35'
C47	33.78'	60.00'	32°15'19"	S71°00'50"E	33.33'	17.35'
C48	33.78'	60.00'	32°15'19"	N76°43'52"E	33.33'	17.35'
C49	37.00'	60.00'	35°20'04"	N42°56'10"E	36.42'	19.11'
C50	25.88'	80.00'	24°42'46"	N12°54'45"E	25.88'	13.14'

**811**  
 Know what's below.  
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**ATWELL**  
 888.850.4300 www.atwell-group.com  
 7100 E. PLEASANT VALLEY ROAD, SUITE 220  
 FAYETTEVILLE, MO 64431

CLIENT: K. HONANIAN HOMES LLC  
 MEADOW LAKES  
 SUBDIVISION NO. 18 PLAT  
 SUBLOTS 1617 - 1628

DATE: 07/01/2020

REVISIONS

SCALE 0 15 30  
 1" = 30 FEET  
 DR. BTS | Ch. MS

P.M. AM  
 BOOK N/A  
 JOB 18002341  
 SHEET NO. 5 of 5

# MEADOW LAKES SUBDIVISION #18

SINGLE FAMILY HOUSING DEVELOPMENT  
CITY OF NORTH RIDGEVILLE, LORAIN COUNTY, OHIO  
SANITARY CONSTRUCTION DRAWINGS

**APPLICANT/OWNER**  
K. HOVNANIAN HOMES LLC  
OHIO DIVISION  
3296 COLUMBIA ROAD  
RICHFIELD, OHIO 44286  
(440) 985-7304 PHONE  
CONTACT: CHRIS BROWN

**ENGINEER/SURVEYOR/ECOLOGICAL**  
ATWELL, LLC  
7100 E. PLEASANT VALLEY ROAD  
INDEPENDENCE, OHIO 44131  
(440) 349-2000 PHONE  
(440) 349-2028 FAX  
CONTACT: TIMOTHY RUSSELL  
EMAIL: TRUSSELL@ATWELL-GROUP.COM

**UTILITIES OWNER**  
CITY OF NORTH RIDGEVILLE  
7307 AVON BELDEN ROAD  
NORTH RIDGEVILLE, OHIO 44039  
PHONE: (440) 353-0819

OHIO EDISON  
MIKE ZANNI  
6326 LAKE AVENUE  
ELYRIA, OHIO 44035  
PHONE: (440) 328-3271  
zannim@firstenergycorp.com

WINDSTREAM ENGINEERING  
GEOFF HAMM  
580 TERNES AVENUE  
ELYRIA, OHIO 44035  
PHONE: (440) 329-4247  
geoffery.p.hamm@windstream.com

SPECTRUM  
RON GIBSON  
576 TERNES AVENUE  
ELYRIA, OHIO 44035  
PHONE: (440) 366-0416 EXT 625

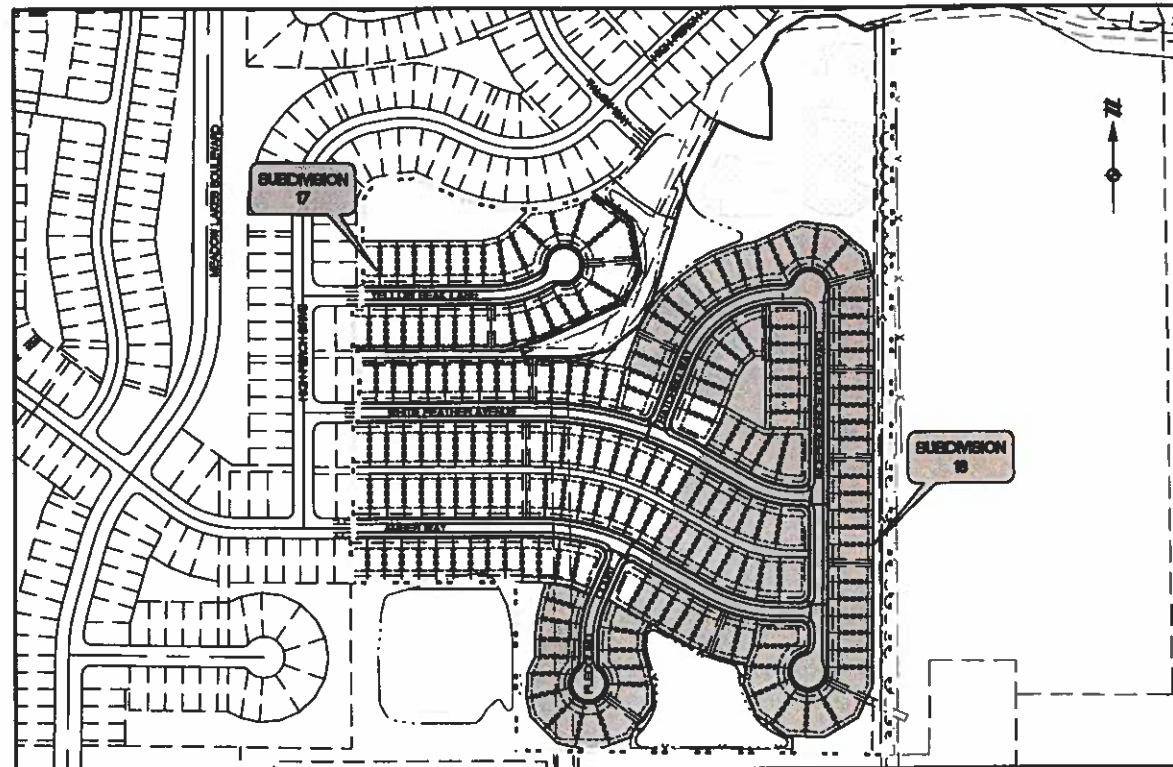
COLUMBIA GAS  
DAN SUREN  
7080 FRY ROAD  
MIDDLEBURG HEIGHTS, OHIO 44130  
PHONE: (440) 891-2428  
dsuren@nisource.com

**SITE DATA**  
RESIDENTIAL SUBDIVISION  
198 SUBLOTS  
53.91 ACRES

BENCHMARKS				
NO.	DESCRIPTION	ELEVATION	NORTHING	EASTING
1	SANITARY MH RM	716.73	628941.9449	2091268.2200
2	SANITARY MH RM	713.91	628956.773	2091272.248

**LEGEND**

---	MEASURED BOUNDARY
---	BOUNDARY TIE
---	ADJACENT BOUNDARY
---	EASEMENT
---	FENCE
---	STORM SEWER
○	MANHOLE
□	CATCH BASIN/INLET
---	SANITARY SEWER
---	CLEANOUT
---	WATER MAIN
---	HYDRANT
---	SHUTOFF OR CURB BOX
---	GATE VALVE IN BOX
---	OVERHEAD ELECTRIC
---	UNDERGROUND ELECTRIC
---	GUY WIRE
---	UTILITY POLE
---	ELECTRICAL BOX / METER
---	UNDERGROUND TELEPHONE
---	GAS
---	GAS RISER
---	TELEPHONE BOX
---	CURB AND GUTTER
---	BOLLARD
---	SIGN
---	GAS VALVE
---	GAS METER
---	WATER METER
---	CALCULATED POINT
---	FOUND MONUMENT AS NOTED
---	SET 8/8" IRON PIN
---	RECORD
---	MEASURED
---	CALCULATED
---	PERMANENT PARCEL NUMBER
---	PROP. 5' CONTOUR
---	EXIST. 1' CONTOUR
---	EXIST. 5' CONTOUR
---	PROP. 1' CONTOUR
---	PROP. STORM SEWER
---	PROP. CATCH BASIN/INLET
---	PROP. STORM MANHOLE
---	PROP. STOP SIGN
---	PROP. STREET SIGN

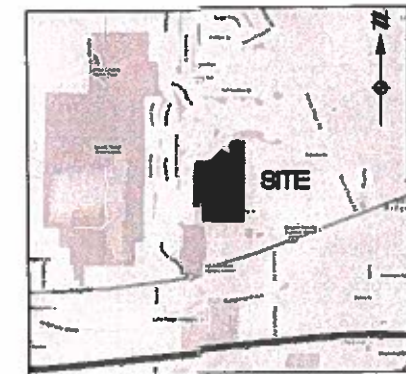


**AREA MAP**  
SCALE: 1" = 250'

**SHEET INDEX**

SHEET NO.	DESCRIPTION
1.0	COVER SHEET
2.0	EXISTING CONDITIONS AND TOPOGRAPHIC SURVEY PLAN
3.0	GENERAL PLAN
3.1	UTILITY PLAN
4.0	GENERAL NOTES
4.1	GENERAL NOTES
6.0	STORMWATER POLLUTION PREVENTION PLAN
6.1	STORMWATER POLLUTION PREVENTION PLAN
6.2	STORMWATER POLLUTION PREVENTION PLAN
6.3	STORMWATER POLLUTION PREVENTION PLAN
7.0	SWPS SPECIFICATIONS
7.1	SWPS GENERAL NOTES
7.2	SWPS DETAILS
7.3	SWPS DETAILS
7.4	SWPS DETAILS & OUTLET STRUCTURE SEDIMENT CONTROL DEVICE DETAILS
8.0	FINAL GRADING PLAN
8.1	FINAL GRADING PLAN
8.2	FINAL GRADING PLAN
8.3	FINAL GRADING PLAN
8.4	EXISTING POND AND OUTLET STRUCTURE MODIFICATIONS
9.4	WHITE FEATHER PLAN & PROFILE - (STA11+00 TO 18+00)
9.6	AMBER WAY PLAN & PROFILE - (STA18+00 TO 13+00)
9.7	AMBER WAY PLAN & PROFILE - (STA13+00 TO 18+00)
9.8	HATCHING WAY PLAN & PROFILE - (STA1-0+50 TO 3+50)
9.9	HATCHING WAY PLAN & PROFILE - (STA2+5+50 TO 8+00)
9.10	INDEPENDENCE BLVD PLAN & PROFILE - (STA1-0+50 TO 4+00)
9.11	INDEPENDENCE BLVD PLAN & PROFILE - (STA4+00 TO 7+80)
9.12	INDEPENDENCE BLVD PLAN & PROFILE - (STA7+50 TO 12+00)
9.13	FLOODING COURT PLAN & PROFILE - (STA1-0+50 TO 5+00)
9.14	AUXILIARY STORM PROFILES
9.15	AUXILIARY STORM PROFILES
9.16	AUXILIARY STORM PROFILES
9.17	AUXILIARY STORM PROFILES
11.0	TYPICAL STORM DETAILS
11.1	TYPICAL DETAILS
11.2	TYPICAL DETAILS
11.3	TYPICAL WATER DETAILS
11.4	TYPICAL WATER DETAILS & RETENTION POND DETAILS
11.5*	TYPICAL PAVEMENT DETAILS
11.6	TYPICAL DETAILS

\*ROADWAY TYPICAL SECTION LOCATED ON SHEET 11.5



**VICINITY MAP**  
SCALE

**NOTES**

- STREET LIGHTING REQUIRED TO BE INSTALLED BY THE DEVELOPER.
- LANDSCAPING AND SIGNAGE REQUIREMENTS DELEGATED BY THE USACE PERMIT FOR THE RELOCATED DITCH WILL BE PERFORMED UNDER SEPARATE DOCUMENTATION. DEVELOPER RESPONSIBLE FOR WORK TO BE PERFORMED.
- PRIOR TO BEGINNING CONSTRUCTION THE CONTRACTOR SHALL SUPPLY A SIGNED CONSTRUCTION SET ACKNOWLEDGING THEIR RESPONSIBILITY TO FOLLOW THE SWPPP FOR THIS PROJECT.

THE UNDERSIGNED HAS BEEN INFORMED AND UNDERSTANDS THEIR ROLE AND RESPONSIBILITY IN COMPLYING WITH THIS FORM WATER POLLUTION PREVENTION PLAN:

CONTRACTOR: \_\_\_\_\_  
BY: \_\_\_\_\_ DATE: \_\_\_\_\_

CONTRACTOR: \_\_\_\_\_  
BY: \_\_\_\_\_ DATE: \_\_\_\_\_

CONTRACTOR: \_\_\_\_\_  
BY: \_\_\_\_\_ DATE: \_\_\_\_\_



**SUBMITTED BY:**

SUBMITTED BY ATWELL: *Timothy D. Russell*  
TIMOTHY D. RUSSELL, PE RE ENGINEER NO. 82878

DATE: 04-14-2020

**ENGINEERING APPROVALS:**

*City Engineer*  
EPA APPROVAL ONLY  
4-16-2020

APPROVED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
NORTH RIDGEVILLE CITY ENGINEER

**OHIO EPA:**

WATER APPROVED BY O.E.P.A. LETTER DATED: 04-22-2019  
PERMIT NUMBER: 121070-WS

SANITARY APPROVED BY O.E.P.A. LETTER DATED: \_\_\_\_\_  
PERMIT NUMBER: \_\_\_\_\_

NPDES PERMIT APPROVAL DATE: 04-12-2018  
PERMIT NUMBER: 3610010-PAG

**811**  
Know what's below.  
Call before you dig.  
NOTES:  
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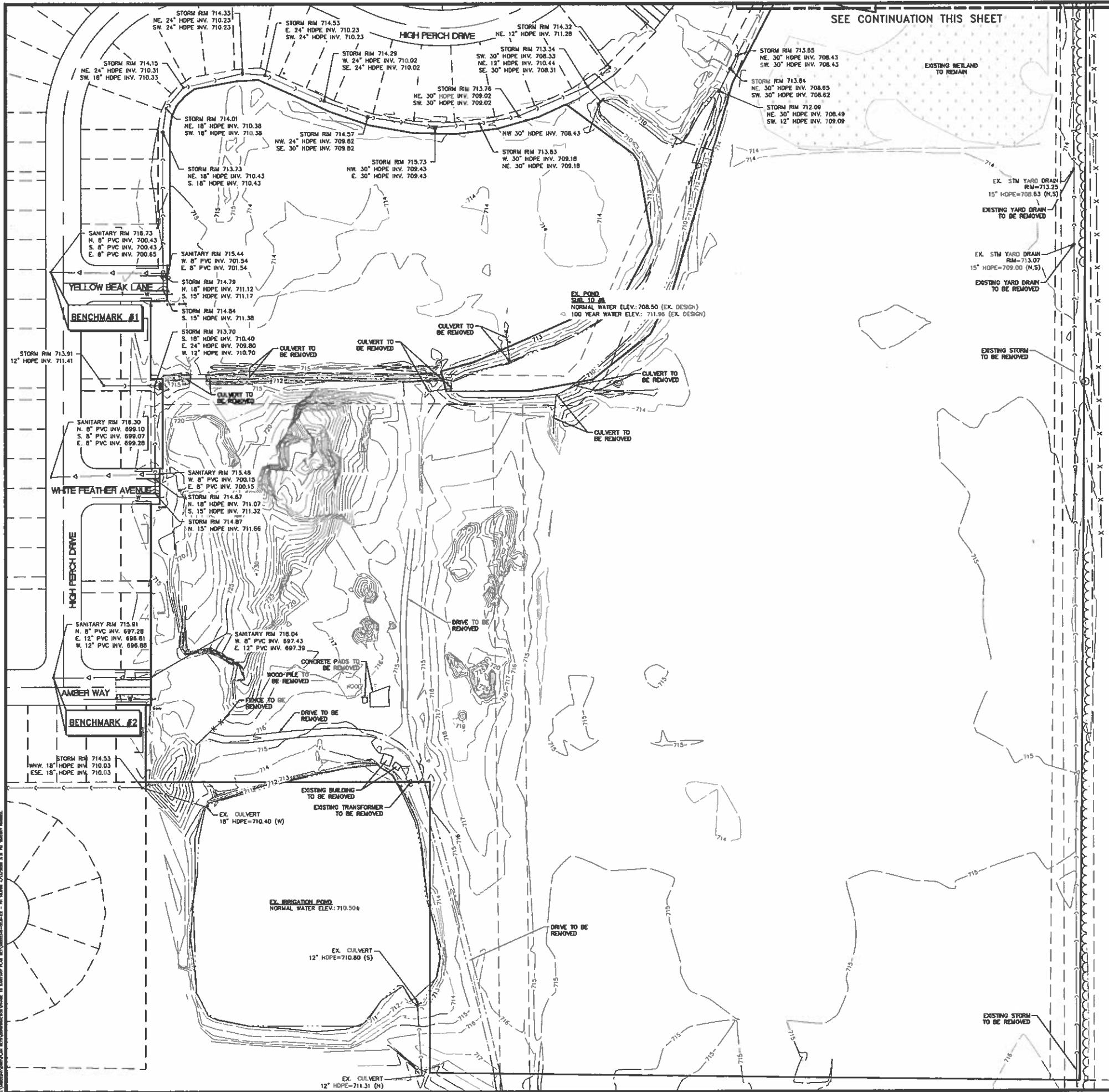
SECTION: \_\_\_\_\_  
TOWN: \_\_\_\_\_  
CITY OF NORTH RIDGEVILLE  
LORAIN COUNTY, OHIO

CLIENT: K. HOVNANIAN HOMES LLC  
MEADOW LAKES SUBDIVISION #18  
SANITARY CONSTRUCTION PLANS  
COVER SHEET

DATE: JANUARY 11, 2019

NO.	DESCRIPTION	DATE

DR. TDR | CHL. DH  
P.M. DH  
BOOK: N/A  
JOB: 18002341  
SHEET NO.: 10



SEE CONTINUATION THIS SHEET

**LEGEND**

- MEASURED BOUNDARY
- BOUNDARY TIE
- ADJACENT BOUNDARY
- EASEMENT
- FENCE
- STORM SEWER
- MANHOLE
- CATCH BASIN/INLET
- SANITARY SEWER
- CLEANOUT
- WATER MAIN
- HYDRANT
- SHUTOFF OR CURB BOX
- GATE VALVE IN BOX
- OVERHEAD ELECTRIC
- UNDERGROUND ELECTRIC
- GUY WIRE
- UTILITY POLE
- ELECTRICAL BOX / METER
- UNDERGROUND TELEPHONE
- GAS
- GAS RISER
- TELEPHONE BOX
- CURB AND GUTTER
- BOLLARD
- SON
- GAS VALVE
- GAS METER
- WATER METER
- CALCULATED POINT
- FOUND MONUMENT AS NOTED
- SET 5/8" IRON PIN
- RECORD
- M MEASURED
- C CALCULATED
- PPN PERMANENT PARCEL NUMBER

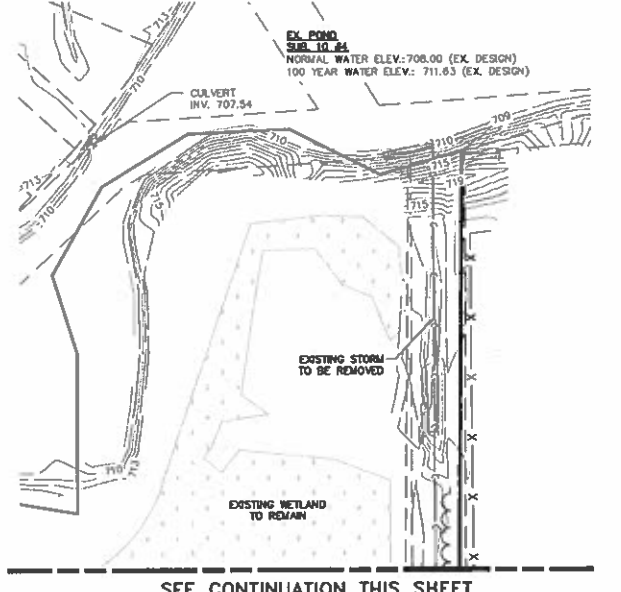
**811**  
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7100 E. PLEASANT VALLEY ROAD, SUITE 220  
NORTH RIDGEVILLE, OHIO 44131  
440.346.2000

BENCHMARKS			
NO.	DESCRIPTION	ELEVATION	NORTHING EASTING
1	SANITARY SAN RIM	716.73	62841.9440 2094368.2390
2	SANITARY WSH RIM	715.91	628256.373 2094372.243

- NOTES:**
- EXISTING POND ELEVATIONS SHOWN ARE BASED ON DESIGN DRAWINGS PREPARED BY BRAHMAN AND PROVIDED BY K. HOVANNIAN.
  - PHASE 10 REFLECTED PER PLAN (NOT AS-BUILT) UNLESS OTHERWISE NOTED.



SEE CONTINUATION THIS SHEET

**SECTION**  
EAST

**TOWN**  
CITY OF NORTH RIDGEVILLE

**COUNTY**  
LORAIN COUNTY, OHIO

---

**CLIENT**  
K. HOVANNIAN HOMES LLC

**PROJECT**  
MEADOW LAKES SUBDIVISION #18  
SANITARY CONSTRUCTION PLANS

**EXISTING CONDITIONS AND TOPOGRAPHIC SURVEY PLAN**

**DATE**  
JANUARY 11, 2019

**SCALE**  
1" = 80 FEET

**REVISIONS**

NO.	DESCRIPTION

**DR.** TDR **CH.** DH

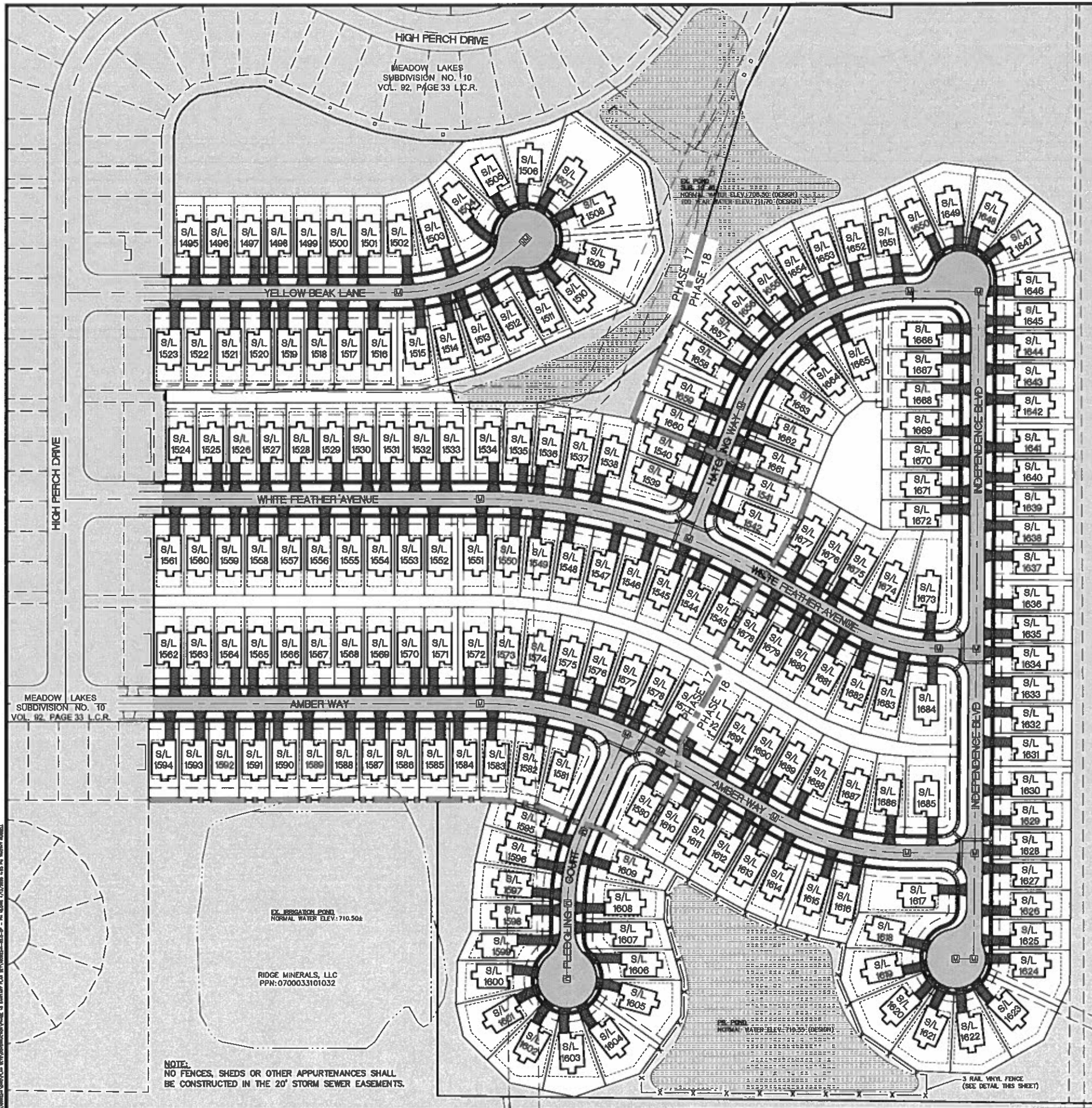
**P.M.** DH

**BOOK** N/A

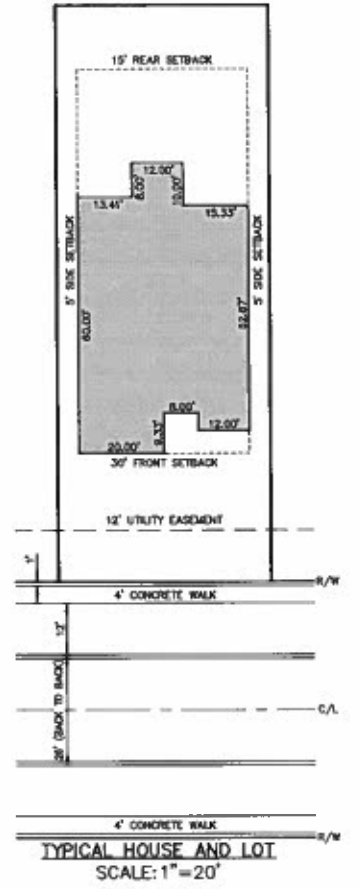
**JOB** 18002341

**SHEET NO.** 20

CADD FILE: 18002341-02-0-EX - PH 18.DWG



RIDGE MINERAL, LLC  
 PPN: 0700033101035  
 INST. 2013-0446423  
 01/30/2013



- LEGEND**
- PR. CONC. (ROADWAY)
  - PR. SIDEWALK (BY DEVELOPER)
  - PR. SIDEWALK (BY HOME BUILDER)
  - PR. DRIVEWAY (BY HOME BUILDER)
  - ON-SITE POND

**NOTES:**  
 1. SEE SHEET 01 OF 06 - 08 OF 08 FOR MEADOW LAKES SUBDIVISION #17 PLAT.



3 RAIL VINYL FENCE DETAIL  
 NTS

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**NOTICE:**  
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SECTION	
TOWN	CITY OF NORTH RIDGEVILLE
RANGE	EAST
LOT	
COUNTY	LORAIN COUNTY, OHIO

CLIENT: K. HOWANIAN HOMES LLC  
 MEADOW LAKES SUBDIVISION #18  
 SANITARY CONSTRUCTION PLANS  
 GENERAL PLAN

DATE	JANUARY 11, 2019
DATE	APRIL 13, 2009
SCALE	AS SHOWN
REVISIONS	
SCALE	0 40 80 1" = 80 FEET
DR.	TDR
CH.	DH
P.M.	DH
BOOK	N/A
JOB	18002341
SHEET NO.	30

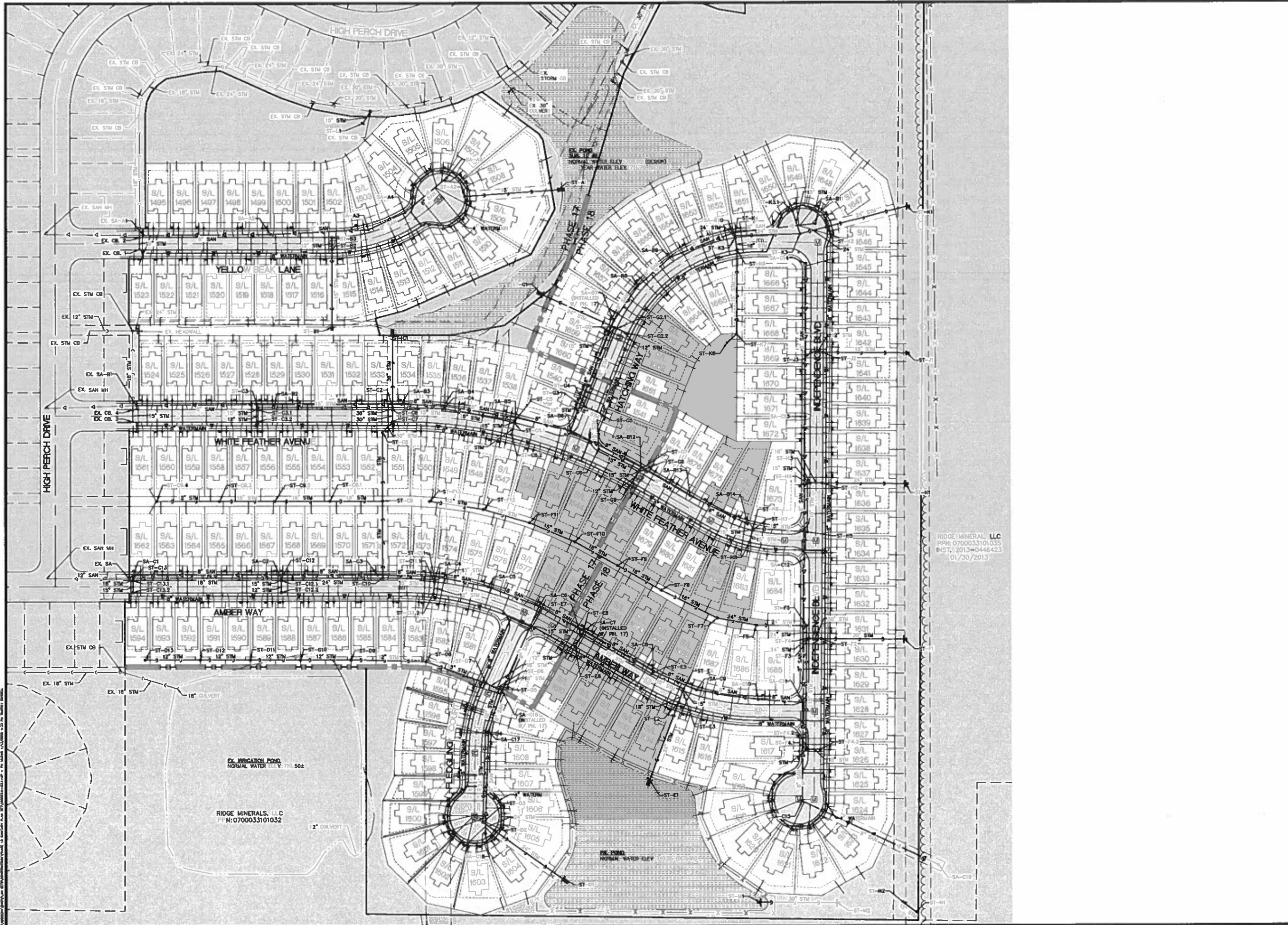
**NOTE:**  
 NO FENCES, SHEDS OR OTHER APPURTENANCES SHALL BE CONSTRUCTED IN THE 20' STORM SEWER EASEMENTS.

EX. IRRIGATION POND  
 NORMAL WATER ELEV.: 710.506

RIDGE MINERALS, LLC  
 PPN: 0700033101032

3 RAIL VINYL FENCE  
 (SEE DETAIL THIS SHEET)





RIDGE MINERALS, LLC  
 PPN: 0700033101035  
 INST. 2013-0446423  
 01/30/2013

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SECTION  
 TOWN NORTH, RANGE EAST  
 CITY OF NORTH RIDGEVILLE  
 LORAIN COUNTY, OHIO

CLIENT  
 K. HOMANIAN HOMES LLC  
 MEADOW LAKES SUBDIVISION #18  
 SANITARY CONSTRUCTION PLANS  
 UTILITY PLAN

DATE  
 JANUARY 11, 2019

APRIL 15, 2009  
 OCA PERMIT NO. 2

REVISIONS  
 SCALE 0 40 80  
 1" = 80 FEET  
 DR. IDR CH. DH  
 P.M. DH  
 BOOK N/A  
 JOB 18002341  
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# 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 DEFLECTION 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'-0" 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.

**ADDITIONAL SANITARY MAIN NOTES:**  
BEDDING FOR PIPE SHALL CONFORM TO ASTM D-2321.

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 VOR TELEVIEWED 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 TELEVIEWED.

## 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-161.
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 18 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-SEALED 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 DEGREE 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 480 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-805, LATEST EDITION.
2. TESTING PLUGS OR CAPS SHALL BE FURNISHED AND INSTALLED FOR TESTING COMPLETED 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, GAUGES, 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-851. 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 60 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

## ADDITIONAL WATER MAIN NOTES:

MAINTAIN A MINIMUM PRESSURE OF 20 PSI (140 KPA) AT GROUND LEVEL AT ALL POINTS IN THE DISTRIBUTION SYSTEM UNDER ALL CONDITIONS OF FLOW.

UNIFORM BEDDING FOR THE ENTIRE LENGTH OF PIPE WILL BE USED.



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NOTICE: CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. NEITHER THE OWNER NOR THE CITY OF NORTH RIDGEVILLE IS CONSIDERED TO ASSUME ANY LIABILITY FOR DAMAGE TO PERSONS OR PROPERTY OR ANY OTHER STRUCTURES, OR OF ANY OTHER PERSONS.

CONTRACT NO. 1800234-04-01  
ATWELL GROUP LLC  
7100 E. PLEASANT VALLEY ROAD, SUITE 210  
MADISON, OHIO 44131

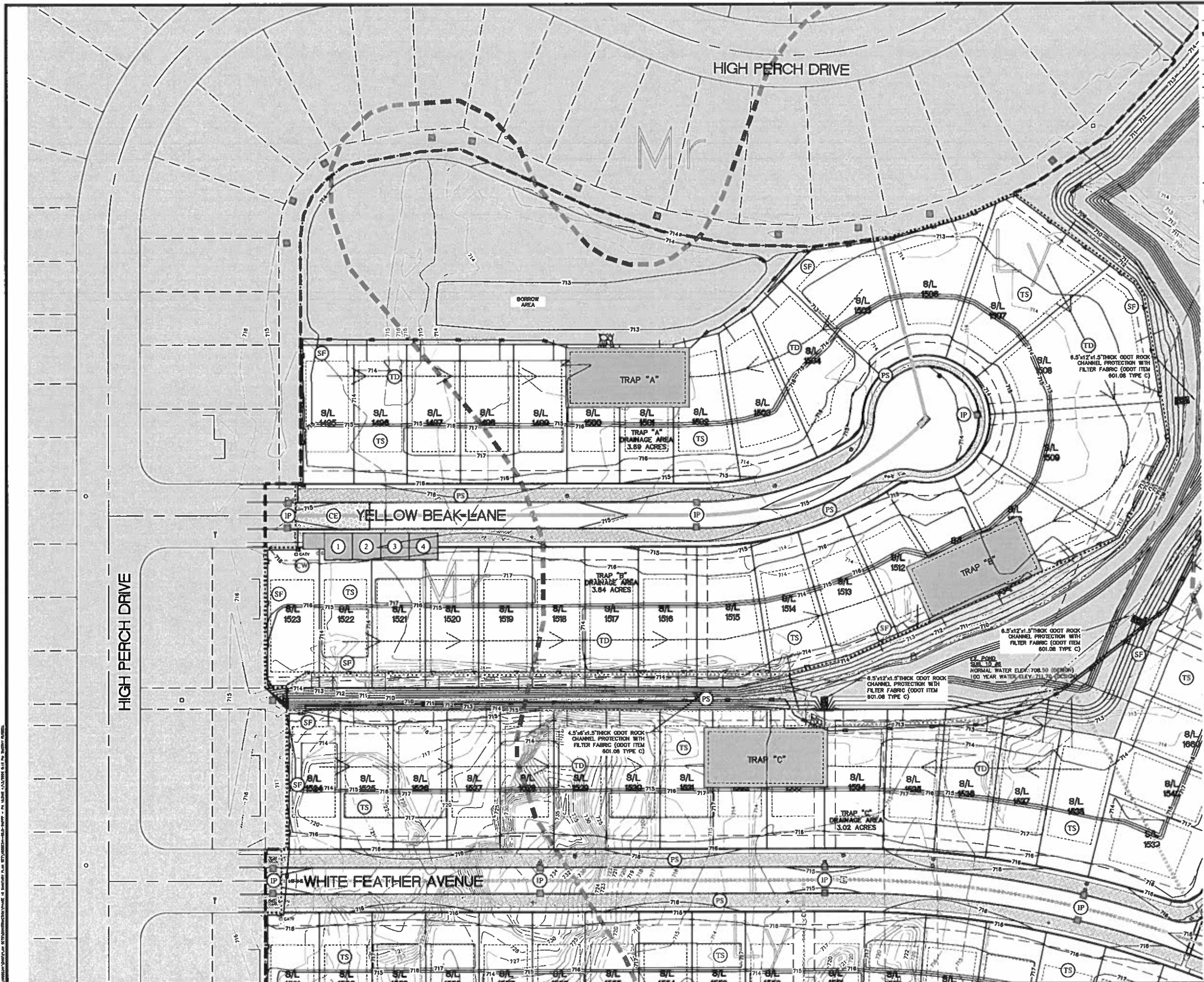


SECTION	EAST
TOWN	CITY OF NORTH RIDGEVILLE
COUNTY	LORAIN COUNTY, OHIO

CLIENT	K. HOWNANIAN HOMES LLC
PROJECT	MEADOW LAKES SUBDIVISION #18
DESCRIPTION	SANITARY CONSTRUCTION PLANS
GENERAL NOTES	

DATE	JANUARY 11, 2019
APPROVED BY	
SCALE	
REVISIONS	
DR.	TDR
CH.	DH
P.J.	DH
BOOK	N/A
JOB	18002341
SHEET NO.	41

CAD FILE: 1800234-04-01 - PH (14.0)



### SWPPP LEGEND

- LIMITS OF DISTURBANCE
- - - - EXST. 1' CONTOUR
- - - - EXST. 5' CONTOUR
- - - - PROP. 1' CONTOUR
- - - - PROP. 5' CONTOUR
- EXST. STORM SEWER
- EXST. CATCH BASIN/INLET
- PROP. STORM SEWER
- PROP. CATCH BASIN/INLET
- PROP. STORM MANHOLE
- IP INLET PROTECTION
- SF SILT FENCE
- SOL SOIL TYPES
- DRAINAGE AREA TO SILT TRAP
- TEMPORARY DIVERSION CHANNEL
- STOCKPILE AREA
- ORANGE CONSTRUCTION FENCE
- CW CONCRETE WASHOUT
- CE CONSTRUCTION ENTRANCE
- PS PERMANENT SEEDING
- TS TEMPORARY SEEDING
- TD TEMPORARY DIVERSION
- 1 DUMPSTER LOCATION
- 2 DESIGNATED AREA FOR MIXING, STORAGE OF FERTILIZER, LIME, MORTAR, ETC.
- 3 FUEL STORAGE AREA
- 4 DESIGNATED AREA FOR STORAGE/DISPOSAL OF SOLID, SANITARY, TOXIC WASTES, ETC.

**NOTES:**

1. ALL GRADING ON THIS PLAN WITHIN THE RIGHT-OF-WAY IS FINAL GRADE ELEVATION.
2. EROSION CONTROL MATTING SHALL BE USED ON DITCH/CHANNEL SLOPES OF 3:1 OR STEEPER.

**811**  
Know what's below.  
Call before you dig.

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN BY AN APPROXIMATE BUT NOT NECESSARILY ACCURATE ONLY AND HAVE NOT BEEN RECONCILED BY THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE EXACT LOCATION OF ALL UTILITIES PRIOR TO ANY CONSTRUCTION WORK. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCURRED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PROTECT ALL UTILITIES AND UNDERGROUND UTILITIES.

**NOTICE:**  
CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. NEITHER THE OWNER NOR THE ENGINEER SHALL BE HELD RESPONSIBLE FOR SAFETY OF PERSONS OR PROPERTY DAMAGED BY THE WORK, OR ANY INJURY TO PERSONS OR PROPERTY, OR ANY OTHER PERSONS.

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866.850.4200 www.atwell-group.com  
7100 E. PLEASANT VALLEY ROAD, SUITE 220  
INDIANAPOLIS, IN 46131  
462.249.2000

SECTION	EAST
TOWN	CITY OF NORTH RIDGEVILLE
COUNTY	LORAIN COUNTY, OHIO

CLIENT  
K. HOWANIAN HOMES LLC  
MEADOW LAKES SUBDIVISION #18  
SANITARY CONSTRUCTION PLANS  
STORMWATER POLLUTION PREVENTION PLAN

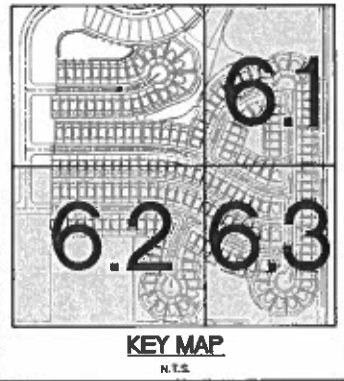
DATE  
JANUARY 11, 2019

APP. 13, 2009  
REV. 1/11/19, NO. 2

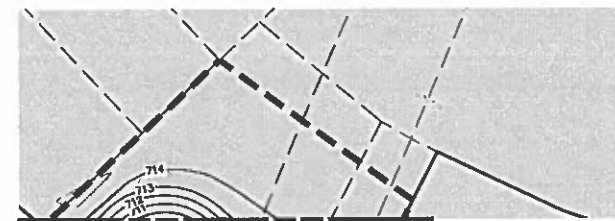
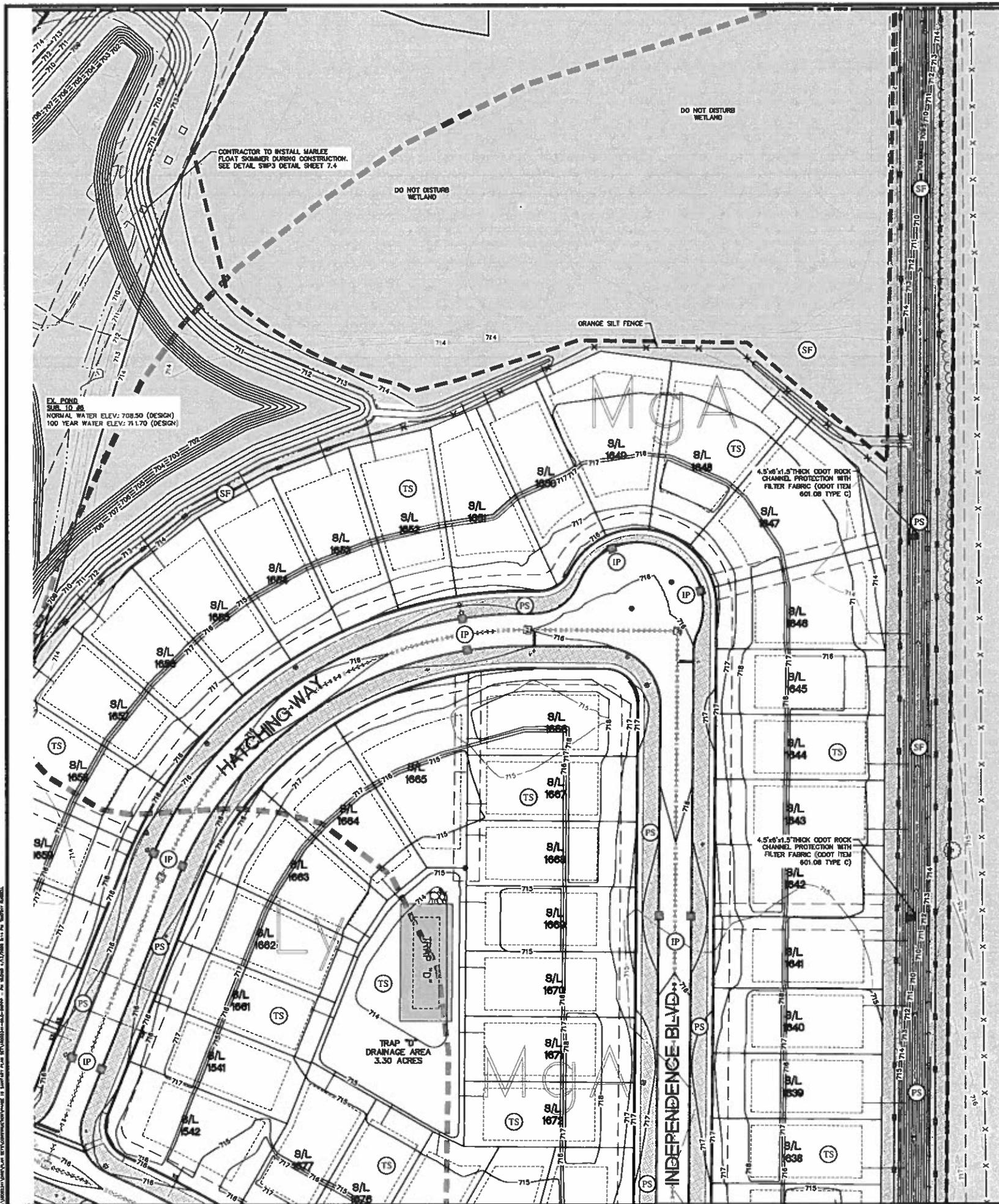
REVISIONS	NO.	DATE	BY	CHK.

SCALE 0 20 40  
1" = 40 FEET

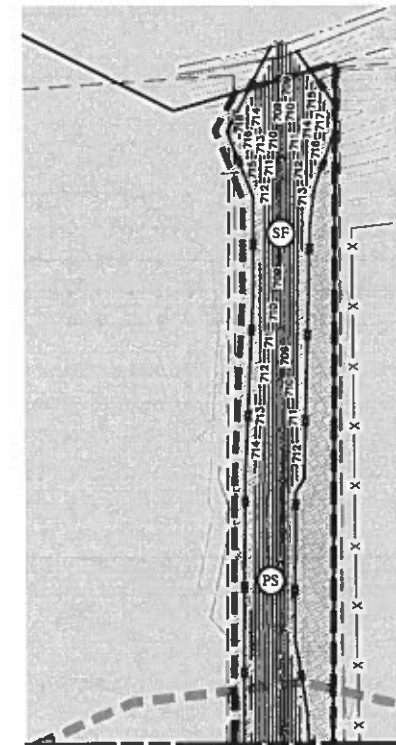
DR. TDR CH. DH  
P.N. DH  
BOOK N/A  
JOB 18002341  
SHEET NO. 6.0



CAD FILE: 18002341-06-C-SWPPP - PH 18.026

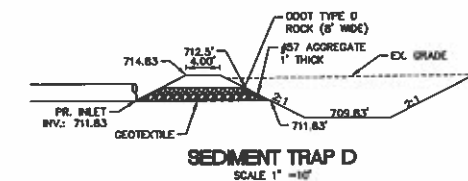


MATCH LINE - SEE THIS SHEET

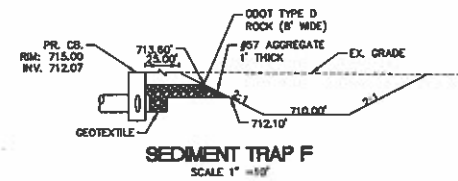


MATCH LINE - SEE THIS SHEET

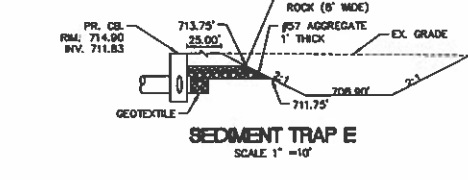
Sediment Trap Data					
Trap Number	D	E	F	G	H
A. Total Contributing Watershed (ac)	3.30	1.97	3.57	1.97	3.58
B. Disturbed Area (ac)	3.30	1.97	3.57	1.97	3.58
C. Run. Coefficient Volume (A x 1800 ft <sup>3</sup> /ac)	5,940	3,546	6,426	3,546	6,444
D. Run. Sediment Storage Zone Vol. (B * 1000)	3,300	1,970	3,570	1,970	3,580
E. Total Required Capacity (C + B in ft <sup>3</sup> )	9,240	5,516	9,996	5,516	10,024
F. Detention Volume Provided (ft <sup>3</sup> )	6,612	5,840	8,031	5,840	6,631
G. Sediment Storage Provided (ft <sup>3</sup> )	3,568	2,330	3,604	2,330	3,604
Total Provided Capacity (G-F)	12,180	8,170	11,635	8,170	11,635
Average Bottom Length (L)	70	53	69	53	69
Average Bottom Width (W)	20	3	18	3	19
Flow L:W Ratio (2:1 min)	3.5:1	20:1	3.5:1	20:1	3.5:1
Bottom Elevation (max 4 ft. sed-storage @)	708.83	708.90	710.00	708.90	710.00
Top of Embankment Elevation	N/A	N/A	N/A	N/A	N/A
Embankment Height (Max. 5 ft @ 2:1 from grade to top embankment)	3.0'	3.15'	2.90'	3.15'	2.90'
Embankment Side Slopes (Max 2:1)	2:1	2:1	2:1	2:1	2:1
Embankment Top Width (Min. 4 feet)	N/A	N/A	N/A	N/A	N/A
Outlet of Spillway Elevation (At least 1.5' below embankment elev.)	714.83	714.90	715.00	714.90	715.00
Top of Sediment Storage Elevation (Base of stone outlet)	711.83	711.75	712.10	711.75	712.10



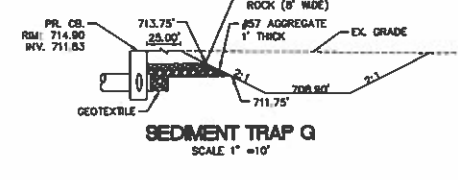
SEDIMENT TRAP D  
SCALE 1" = 10'



SEDIMENT TRAP F  
SCALE 1" = 10'



SEDIMENT TRAP E  
SCALE 1" = 10'

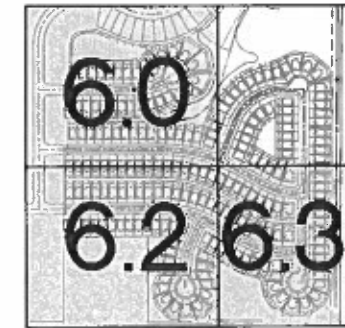


SEDIMENT TRAP G  
SCALE 1" = 10'

NOTES:  
1. ALL GRADING ON THIS PLAN WITHIN THE RIGHT-OF-WAY IS FINAL GRADE ELEVATION.  
2. EROSION CONTROL MATTING SHALL BE USED ON DITCH/CHANNEL SLOPES OF 3:1 OR STEEPER.

SWPPP LEGEND

- LIMITS OF DISTURBANCE
- EXIST. 1' CONTOUR
- EXIST. 5' CONTOUR
- PROP. 1' CONTOUR
- PROP. 5' CONTOUR
- EXIST. STORM SEWER
- EXIST. CATCH BASIN/INLET
- PROP. STORM SEWER
- PROP. CATCH BASIN/INLET
- PROP. STORM MANHOLE
- INLET PROTECTION
- SILT FENCE
- SOIL TYPES
- CONCRETE WASHOUT
- CONSTRUCTION ENTRANCE
- PERMANENT SEEDING
- TEMPORARY SEEDING
- TEMPORARY DIVERSION
- DRAINAGE AREA TO SILT TRAP
- TEMPORARY DIVERSION CHANNEL
- STOCKPILE AREA
- ORANGE CONSTRUCTION FENCE



KEY MAP  
N.T.S.

**811**  
Know what's below.  
Call before you dig.  
THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES AND WORKS IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE CONTRACTOR. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK AND AGREE TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCURRED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE: CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ARISE ANY RESPONSIBILITY FOR SAFETY OF THE WORK OF PERSONS EMPLOYED BY THE OWNER OR NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

CONTRACTOR SHALL BE SOLE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING UTILITIES AND SHALL BE SOLE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING UTILITIES.

**ATWELL**  
666.650.4200 www.atwell-group.com  
7100 E. PLEASANT VALLEY ROAD, SUITE 220  
MOUNTAIN VIEW, CO 80031  
440.948.2000

SECTION: EAST  
TOWN: NORTH RANGE  
CITY: CITY OF NORTH RIDGEVILLE  
COUNTY: LORAIN COUNTY, OHIO

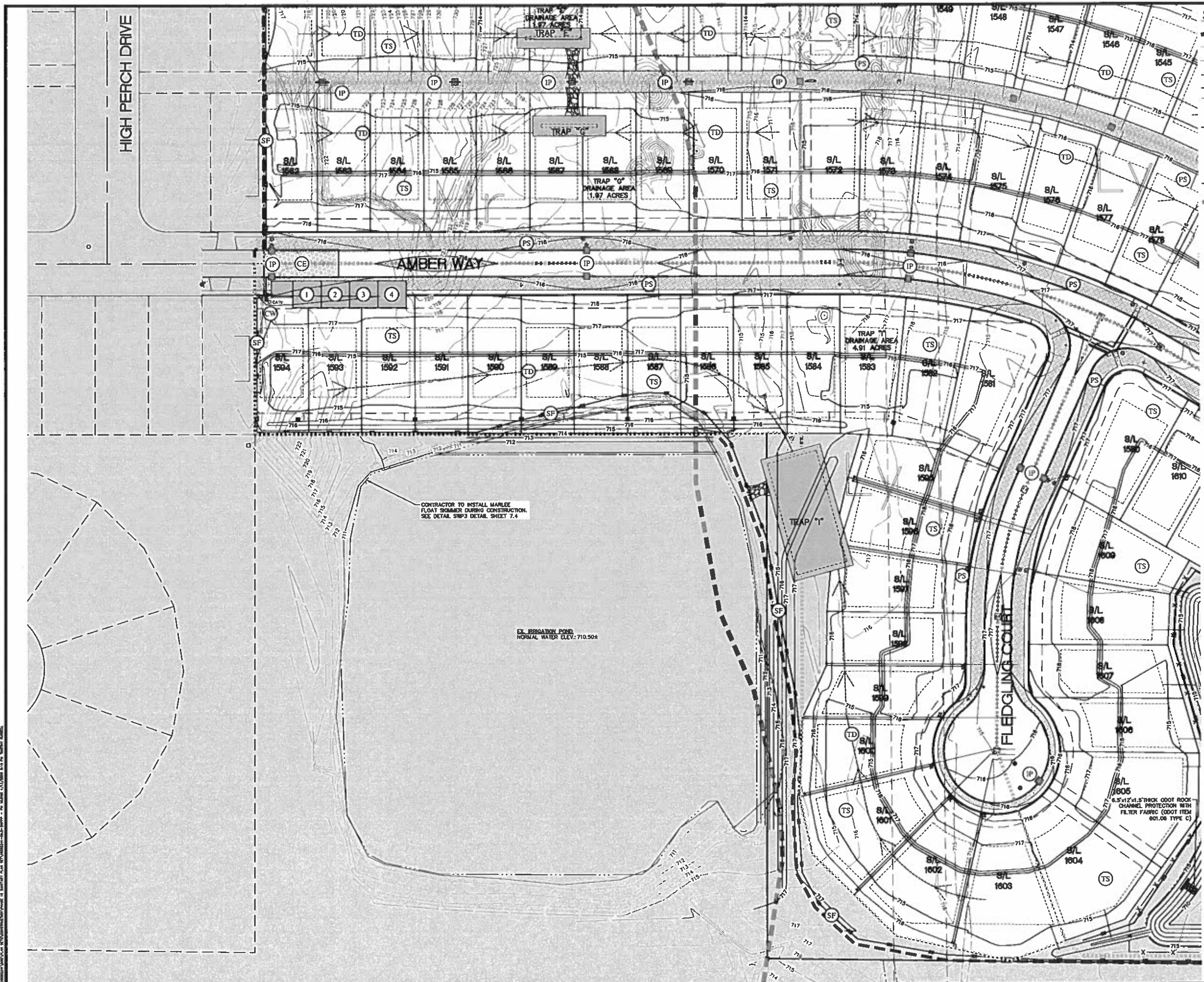
CLIENT: K. HONANIAN HOMES LLC  
MEADOW LAKES SUBDIVISION #18  
SANITARY CONSTRUCTION PLANS  
STORMWATER POLLUTION PREVENTION PLAN

DATE: JANUARY 11, 2018  
APRIL 13, 2018  
0224-18-001-NO. 1

REVISIONS:  
SCALE: 0 20 40  
1" = 40 FEET

DR. TDR: CL, DH  
P.M. DH  
BOOK: N/A  
JOB: 18002341  
SHEET NO.: 6.1

CAO FILE: 18002341-04-0-SWPPP - PR 18.018



**SWPPP LEGEND**

- LIMITS OF DISTURBANCE
- - - - - EXIST. 1' CONTOUR
- - - - - EXIST. 5' CONTOUR
- - - - - PROP. 1' CONTOUR
- - - - - PROP. 5' CONTOUR
- EXIST. STORM SEWER
- EXIST. CATCH BASIN/INLET
- PROP. STORM SEWER
- PROP. CATCH BASIN/INLET
- PROP. STORM MANHOLE
- IP INLET PROTECTION
- SF SILT FENCE
- SOIL TYPES
- DRAINAGE AREA TO SILT TRAP
- TEMPORARY DIVERSION CHANNEL
- STOCKPILE AREA
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- CW CONCRETE WASHOUT
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- TS TEMPORARY SEEDING
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- 1 DUMPSTER LOCATION
- 2 DESIGNATED AREA FOR MIXING, STORAGE OF FERTILIZER, LIME, MORTAR, ETC.
- 3 FUEL STORAGE AREA
- 4 DESIGNATED AREA FOR STORAGE/DISPOSAL OF SOLID, SANITARY, TOXIC WASTES, ETC.

**NOTES:**  
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 NOTICE: CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. WHETHER THE OWNER OR THE CONTRACTOR SHALL BE MADE RESPONSIBLE TO ABIDE ANY REGULATORY AGENCIES OR THE WORK OF THE CONTRACTOR SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS.  
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 7100 E. PLEASANT VALLEY ROAD, SUITE 220  
 HOUSTON, TEXAS 77058-3008

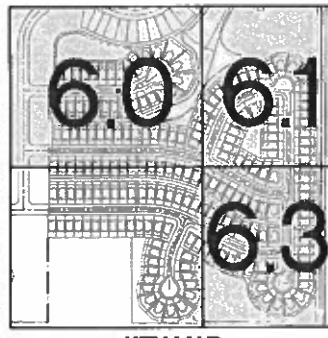
SECTION	EAST
TOWN	CITY OF NORTH RIDGEVILLE
LORAIN COUNTY, OHIO	

CLIENT: **K. HOWANIAN HOMES LLC**  
**MEADOW LAKES SUBDIVISION #18**  
**SANITARY CONSTRUCTION PLANS**  
**STORMWATER POLLUTION PREVENTION PLAN**

DATE: **JANUARY 11, 2019**  
 APP. U.S. 2289  
 OCA SERIAL NO. 1

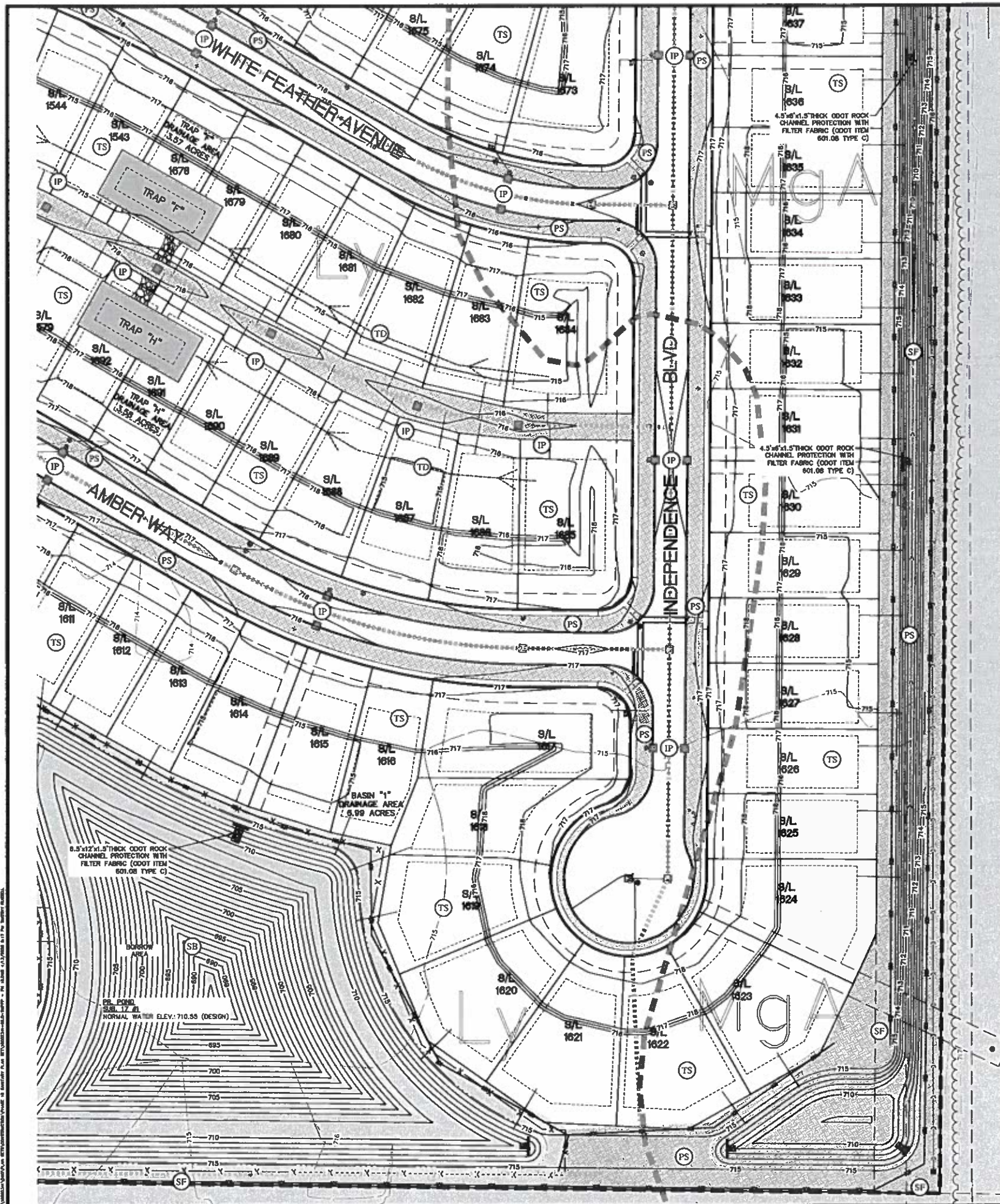
REVISIONS

SCALE	0	20	40
1" = 40 FEET			
DR.	TDR	CH.	OH.
P.M.	DH		
BOOK	N/A		
JOB	18002341		
SHEET NO.	62		



**KEY MAP**  
 N.T.S.

CAD FILE: 18002341-04-G-SWPPP - PH 18.DWG  
 PLOT DATE: 1/11/2019 10:10:00 AM  
 PLOT SCALE: 1" = 40 FEET  
 PLOT SHEET: 62 OF 62



**Sediment Basin & Post Construction Data Sheet**

Basin Reference Number	Area	Volume
A. Total Contributing Watershed (ac)	3.69	3.69
B. Disturbed Area (ac)	3.69	3.69
C. Run. Detention Volume (A x 1800 ft³/ac)	6,642	6,642
D. Run. Sediment Storage Zone Vol. (B x 1000 ft³/ac)	3,690	3,690
E. Total Required Capacity (C + D) (ft³)	10,332	10,332
F. Detention Volume Provided (ft³)	7,536	7,536
G. Sediment Storage Provided (ft³)	4,128	4,128
H. Total Storage Provided at Crest of Flow (F + G)	11,664	11,664
I. Total Storage Provided at Crest of Flow (F + G)	11,664	11,664
J. Total Storage Provided at Crest of Flow (F + G)	11,664	11,664

**Sediment Trap Data**

Trap Number	A	B	C	I
A. Total Contributing Watershed (ac)	3.69	3.64	3.02	4.81
B. Disturbed Area (ac)	3.69	3.64	3.02	4.81
C. Run. Detention Volume (A x 1800 ft³/ac)	6,642	6,612	5,436	8,636
D. Run. Sediment Storage Zone Vol. (B x 1000 ft³/ac)	3,690	3,640	3,020	4,810
E. Total Required Capacity (C + D) (ft³)	10,332	10,252	8,456	13,446
F. Detention Volume Provided (ft³)	7,536	7,536	7,536	8,496
G. Sediment Storage Provided (ft³)	4,128	4,128	4,128	5,904
H. Total Storage Provided (F + G) (ft³)	11,664	11,664	11,664	14,400
Average Bottom Length (ft)	108	108	108	108
Average Bottom Width (ft)	48	48	48	48
Flow L/W Ratio (2:1 min)	2:1	2:1	2:1	2:1
Bottom Elevation (max 4 ft sed-storage d)	712.00	712.00	712.00	712.50
Top of Embankment Elevation	N/A	N/A	N/A	N/A
Embankment Height (max 5 ft @ crest grad to top embankment)	1.25'	1.25'	1.25'	1.50'
Embankment Side Slopes (max 2:1)	2:1	2:1	2:1	2:1
Embankment Top Width (min 4 ft)	N/A	N/A	N/A	4'
Crest of Sidewalk Elevation (at least 1.5' below embankment elev.)	714.50	714.50	714.50	715.50
Top of Sediment Storage Elevation (base of stone outlet)	712.75	712.75	712.75	713.50

**SKIMMER SIZING CALCULATIONS POND #1 MARLEE SKIMMER**

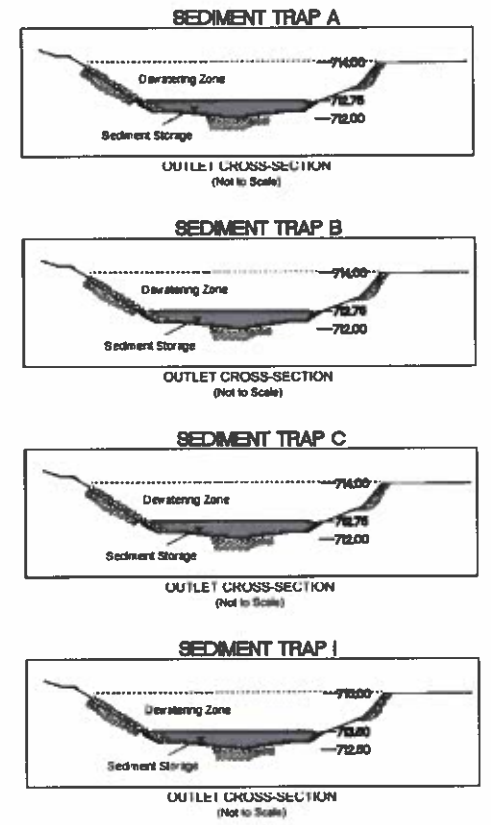
**FeeSaver**  
Stormwater Services

Marlee Pond Skimmer Sizing Calculation Report

Date: April 11, 2019  
 Designer: Atwell, LLC  
 Engineer: Matthew Samuel, PE  
 Project Location: North Ridgeville, Ohio  
 Sub Description: Subdivision Site #1

Trap	Area (sq ft)	Volume (cu ft)
Trap T	1,500	1,500
Trap H	1,500	1,500
Trap I	1,500	1,500

Minimum Average Flow Rate: 0.002 cfs  
 Maximum Average Flow Rate: 0.002 cfs



**SWPPP LEGEND**

	LIMITS OF DISTURBANCE		CONCRETE WASHOUT
	EXIST. 1' CONTOUR		CONSTRUCTION ENTRANCE
	EXIST. 5' CONTOUR		PERMANENT SEEDING
	PROP. 1' CONTOUR		TEMPORARY SEEDING
	PROP. 5' CONTOUR		TEMPORARY DIVERSION
	EXIST. STORM SEWER		DRAINAGE AREA TO SILT TRAP
	EXIST. CATCH BASIN/INLET		TEMPORARY DIVERSION CHANNEL
	PROP. STORM SEWER		STOCKPILE AREA
	PROP. CATCH BASIN/INLET		ORANGE CONSTRUCTION FENCE
	PROP. STORM MANHOLE		
	INLET PROTECTION		
	SILT FENCE		
	SOIL TYPES		

**NOTES:**  
 1. ALL GRADING ON THIS PLAN WITHIN THE RIGHT-OF-WAY IS FINAL GRADE ELEVATION.  
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**811**  
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 RIDGEVILLE, OHIO 44131  
 440.294.0000

SECTION: EAST  
 TOWN: NORTH, RANGE  
 CITY OF NORTH RIDGEVILLE  
 LORAIN COUNTY, OHIO

CLIENT: K. HOWANIAN HOMES LLC  
 MEADOW LAKES SUBDIVISION #18  
 SANITARY CONSTRUCTION PLANS  
 STORMWATER POLLUTION PREVENTION PLAN

DATE: JANUARY 11, 2019  
 APRIL 13, 2019  
 02/24/2019/REV. 1

REVISIONS  
 SCALE: 1" = 40 FEET  
 DR. TDR CHL DH  
 P.M. DH  
 BOOK N/A  
 JOB 18002341  
 SHEET NO. 6.3

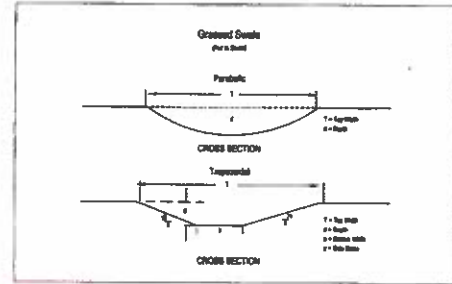








Specifications for Grassed Swale



- All trees, brush, stumps, and other undesirable material shall be removed from the site.
- The channel shall be excavated and shaped to the proper grade and cross section.
- Fill material used in the construction of the channel shall be well compacted in uniform layers not exceeding 9 inches using the small hands or tools of the construction equipment to prevent eventual settlement.
- Grass seeds shall be graded or broadcast so that it will not wash away to the channel or adjacent soils to be seeded.
- Stabilization shall be done according to the appropriate specifications for permanent seeding, vegetative practices, mowing and watering.
- Construction shall be completed so that newly constructed channels are established prior to beginning earthwork. To aid in the establishment of vegetation, surface water may be prevented from entering the newly constructed channel through the establishment period.
- Soil that may have to be cleaned or other erosion damage that occurs before the grass taking becomes established shall be repaired without delay.

INFORMATION OBTAINED FROM THE 2008 EDITION OF THE STATE OF OHIO "RAINWATER AND LAND DEVELOPMENT MANUAL".

REV. NO.	DATE	BY	DESCRIPTION

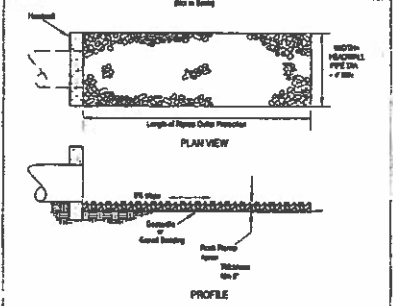
CITY OF NORTH RIDGEVILLE, OHIO  
DEPARTMENT OF ENGINEERING

**GRASSSED SWALE**

SCALE: NOT TO SCALE  
DATE: 10/01/08  
DRWN BY: JAB/TBE  
SWP-3

*Larry J. Hoff*  
CITY OF NORTH RIDGEVILLE, ENGINEER

Specifications for Rock Outlet Protection



- Subgrade for the fill or bedding over riprap shall be prepared to the required level and graded to drain on the plan. The riprap shall be placed on a 4-inch sand, gravel, rock, or other material.
- Riprap shall conform to the grading levels as shown on the plan.
- Grout shall be placed to secure riprap according to manufacturer's recommendations.
- Construction shall be completed so that outlet protection is placed and backfilled when the storm drain, culvert, or open channel above it becomes operational.
- All disturbed areas shall be vegetated as soon as practical.
- Grout bedding shall be 0.500 to 0.750 inches thick.
- Riprap may be placed by equipment but shall be placed in a manner to prevent damage to the structure.
- Riprap shall be placed by a method that does not cause segregation of sizes. Subgrade piling with a deep concrete preparation and shall be located by following riprap near its final location when the channel.
- Construction shall be completed so that outlet protection is placed and backfilled when the storm drain, culvert, or open channel above it becomes operational.
- All disturbed areas shall be vegetated as soon as practical.

INFORMATION OBTAINED FROM THE 2008 EDITION OF THE STATE OF OHIO "RAINWATER AND LAND DEVELOPMENT MANUAL".

REV. NO.	DATE	BY	DESCRIPTION

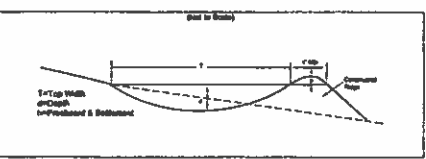
CITY OF NORTH RIDGEVILLE, OHIO  
DEPARTMENT OF ENGINEERING

**ROCK OUTLET PROTECTION**

SCALE: NOT TO SCALE  
DATE: 10/01/08  
DRWN BY: JAB/TBE  
SWP-7

*Larry J. Hoff*  
CITY OF NORTH RIDGEVILLE, ENGINEER

Specifications for Diversion



- All trees, brush, stumps, and other undesirable material shall be removed from the work site.
- The structure shall be constructed on a prepared subgrade.
- Fill material used in the construction of the structure shall be well compacted in uniform layers not exceeding 9 inches using the small hands or tools of the construction equipment to prevent eventual settlement.
- Grout bedding shall be 0.500 to 0.750 inches thick.
- Fertiling, seeding, and mulching shall conform to the recommendations in the applicable regulatory specifications.
- Construction shall be completed so that the newly constructed structure is established prior to beginning earthwork. To aid in the establishment of vegetation, surface water may be prevented from entering the newly constructed structure through the establishment period.
- Soil that may have to be cleaned or other erosion damage that occurs before the grass taking becomes established shall be repaired without delay.

INFORMATION OBTAINED FROM THE 2008 EDITION OF THE STATE OF OHIO "RAINWATER AND LAND DEVELOPMENT MANUAL".

REV. NO.	DATE	BY	DESCRIPTION

CITY OF NORTH RIDGEVILLE, OHIO  
DEPARTMENT OF ENGINEERING

**DIVERSION**

SCALE: NOT TO SCALE  
DATE: 10/01/08  
DRWN BY: JAB/TBE  
SWP-8

*Larry J. Hoff*  
CITY OF NORTH RIDGEVILLE, ENGINEER

Specifications for De-Watering

- A de-watering plan shall be developed prior to the commencement of any pumping activities.
- The de-watering plan shall include pumps and related equipment necessary for the de-watering activities and suitable means for disposal of discharge. Discharge from pumps shall be protected from other sites by silt fences, silt curtains, silt socks, or other acceptable methods of outlet protection.
- Water that is discharged into a waterway or stream shall be discharged into the waterway at a point where it will not cause erosion or other damage to the waterway. Discharge shall be made at a point where it will not cause erosion or other damage to the waterway.
- Existing water lines shall not be disturbed. If they are disturbed, they shall be repaired to the original condition.
- All necessary material, labor and cost items shall be included on the de-watering plan.

INFORMATION OBTAINED FROM THE 2008 EDITION OF THE STATE OF OHIO "RAINWATER AND LAND DEVELOPMENT MANUAL".

REV. NO.	DATE	BY	DESCRIPTION

CITY OF NORTH RIDGEVILLE, OHIO  
DEPARTMENT OF ENGINEERING

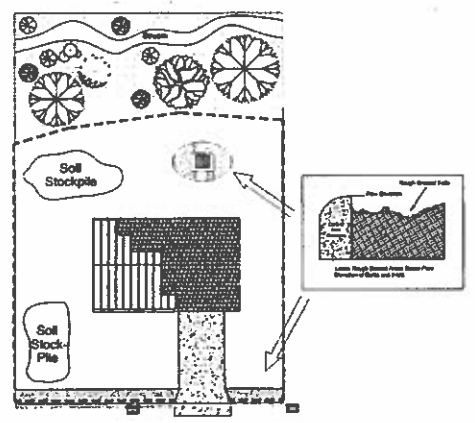
**DE-WATERING**

SCALE: NOT TO SCALE  
DATE: 10/01/08  
DRWN BY: JAB/TBE  
SWP-15

*Larry J. Hoff*  
CITY OF NORTH RIDGEVILLE, ENGINEER

Specifications for Small Construction Site Controls

- Preexisting vegetation shall be retained on the portions of the building site to be retained as permanent open space. Other areas shall be cleared as early as possible during site preparation.
- Temporary silt control shall be installed in areas, such as stockpiles and rough graded areas, that are not actively being worked. This shall apply to areas that will not be worked for 21 days or more.
- Stockpiles created from excavation and grading shall be situated away from streets, roads, or other waterways and shall be covered with silt control blankets.
- Silt fence or other sediment barrier shall cover sites that are not actively being worked. These shall not be constructed in channels or areas of concentrated flow. Other sediment controls such as sediment traps and
- Silt fences shall also be used or revised to control sediment runoff. Sediment control practices shall be inspected weekly after storm events, and maintained in good working condition.
- Construction vehicle access shall be limited to one entry, to the greatest extent practical. The access shall be paved or crushed rock entrance with gabrioles.
- Mud tracked into streets or adjacent settled ground shall be cleaned up. Silt fences shall be removed only or as needed to prevent erosion. If not removed, they shall be covered 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.



INFORMATION OBTAINED FROM THE 2008 EDITION OF THE STATE OF OHIO "RAINWATER AND LAND DEVELOPMENT MANUAL".

REV. NO.	DATE	BY	DESCRIPTION

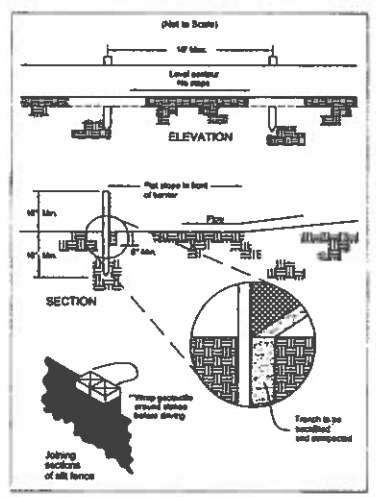
CITY OF NORTH RIDGEVILLE, OHIO  
DEPARTMENT OF ENGINEERING

**SMALL CONSTRUCTION SITE CONTROLS**

SCALE: NOT TO SCALE  
DATE: 10/01/08  
DRWN BY: JAB/TBE  
SWP-32

*Larry J. Hoff*  
CITY OF NORTH RIDGEVILLE, ENGINEER

Specifications for Silt Fence



- Silt fence shall be constructed before stormwater discharge begins.
- All silt fence shall be placed as close to the center as possible as that water will not concentrate in the joints in the fence and so that each section or component that may carry runoff concentrated there in the silt fence are designed along its length.
- Each of the silt fence shall be brought vertically up to the silt fence panels by the silt fence will be prevented from flowing around the ends.
- Silt fence shall be placed on the bottom side of the structure.
- Where possible, vegetation shall be prepared for 5 feet on each side of the silt fence. If not possible, the silt fence shall be maintained within 7 days after the installation of the silt fence.
- The height of the silt fence shall be a minimum of 18 inches above the original ground surface.
- The silt fence shall be placed on an undisturbed or compacted subgrade or a minimum of 3 inches deep. The fence shall be made with a trencher with a 12-inch deep, along machine, or other suitable device that will ensure an adequately uniform trench depth.
- The silt fence shall be placed with the silt fence on the down-slope side of the structure. A minimum of 3 inches of gravel shall be placed below the ground surface. Gravel shall be placed on the surface of the silt fence. The gravel shall be backfilled and compacted on both sides of the fabric.
- Silt fence fabric - See chart below.
- Some between sections of silt fence shall be spaced together only at a support post with a minimum 6-in. overlap prior to being installed on the ground. One string of fabric shall be placed over the other. If silt fence panels are placed over the other, the silt fence shall be placed over the other. The silt fence shall be placed over the other. The silt fence shall be placed over the other.
- Stockpiles shall be covered with silt control blankets. Sediment removed shall be placed where it will not be subject to erosion or concentrated runoff.
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- Silt fence fabric - See chart below.

Material	Weight	Test Method
Minimum Strength	1.25 lb./sq. ft.	ASTM D 4832
Minimum Permeability	0.001 in./min.	ASTM D 4832
Minimum Tensile Strength	50 lb./in.	ASTM D 4832
Minimum Tear Strength	40 lb./in.	ASTM D 4832
Approximate Opening Size	≤ 0.075 in.	ASTM D 4832
Minimum Permeability	1.25E-2 sec-1	ASTM D 4832
UV Exposure through material	70%	ASTM D 4832

INFORMATION OBTAINED FROM THE 2008 EDITION OF THE STATE OF OHIO "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/TBE  
SWP-18

*Larry J. Hoff*  
CITY OF NORTH RIDGEVILLE, ENGINEER

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NOTICE: CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. NEITHER THE OWNER NOR THE ENGINEER SHALL BE HELD RESPONSIBLE FOR ANY INJURY OR DAMAGE TO PERSONS OR PROPERTY ARISING FROM ANY CONSTRUCTION ACTS OR OMISSIONS IN THE WORK OF PROVIDING SERVICES IN THE WORK OF ANY PARTY CONTRACTOR OR ANY OTHER PERSONS.

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MOUNTAIN VIEW, CO 80031-44131  
440-349-2000

SECTION: EAST  
TOWN: NORTH, RANGE: NORTH  
CITY OF NORTH RIDGEVILLE  
LORAIN COUNTY, OHIO

CLIENT: K. HONANIAN HOMES LLC  
MEADOW LAKES SUBDIVISION #18  
SANITARY CONSTRUCTION PLANS  
SWP3 DETAILS

DATE: JANUARY 11, 2019  
APRIL 13, 2009  
CPLA 000011A.03

REVISIONS:

NO.	DATE	DESCRIPTION

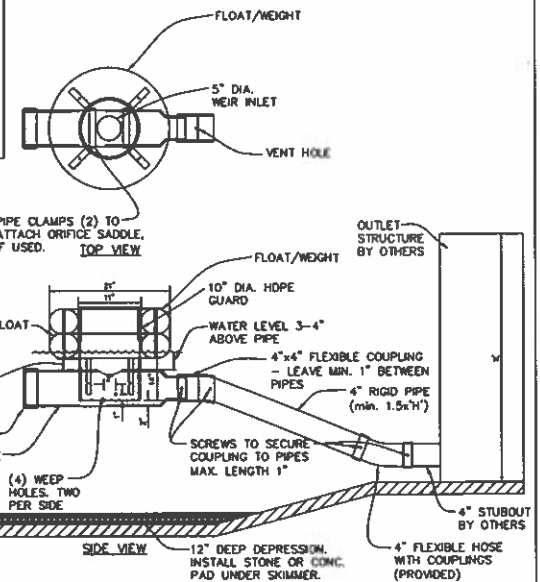
DR: TDR | CH: DH  
P.M. DH  
BOOK: N/A  
JOB: 18002341  
SHEET NO.: 7.3

CAD FILE: 18002341-07 - SWPPP DT - PM.TECLING

- STANDARD NOTES:**
1. Rigid outlet pipe should be 1.5 to 2 times the height of outlet structure (min. 8").
  2. Inlet Orifice size can be reduced with 3" & 4" saddles provided.
  3. Minimal assembly required. User provides rigid outlet pipe. All other materials and parts included.
  4. Total weight of skimmer ±52.0 lbs.

Water Depth	5" orifice	5" with 4" Orifice	5" with 3" Orifice
ft	cfm	cfm	cfm
0.1	0.1594	16.733	0.1297
0.2	0.2179	18,829	0.1526
0.3	0.2456	21,217	0.1728
0.4	0.2709	23,912	0.2119
0.5	0.2965	26,625	0.2331
1.0	0.3117	28,935	0.2409
1.5	0.3240	27,894	0.2629
2.0	0.3343	28,479	0.2745
2.5	0.3434	29,689	0.2846
3.0	0.3512	30,342	0.2929
3.5	0.3579	30,822	0.2988
4.0	0.3634	31,144	0.3034
Avg (0.5'-4')	0.3304	28,822	0.2488

FOR DESIGN PURPOSES ASSUME FLOW RATES REMAIN CONSTANT FOR DEPTHS GREATER THAN 4'. FLOW RATES BASED ON THIRD PARTY TESTING.



**MODEL #**  
3" - 5" Mariee Float Skimmer Detail

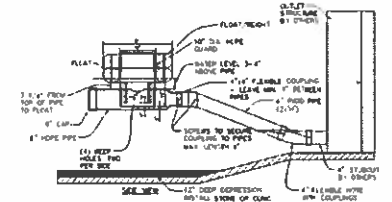
**RYMAR**  
WATERWORKS INNOVATIONS

803 ROPER CREEK DRIVE GREENVILLE, SC 29615  
855.697.9333  
WWW.RYMARWATERWORKS.COM  
1-888-897-9333

DATE: 05/15/16  
PROPERTY LOCATION: County, State

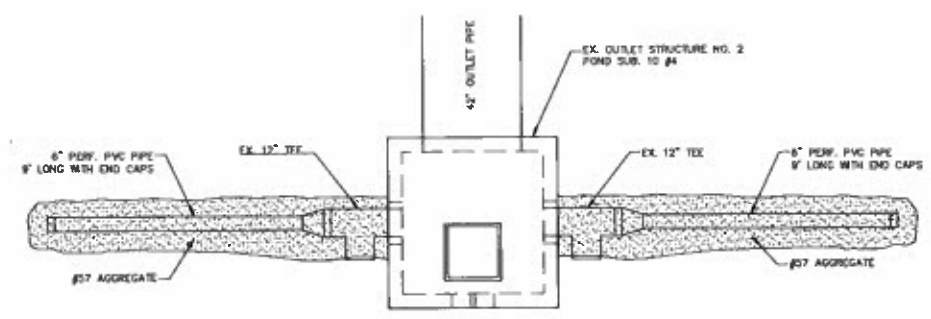
**RYMAR**  
WATERWORKS INNOVATIONS

**Model #2 | 3", 4" & 5"**  
Mariee Float™ Skimmer Cut Sheet/Installation Instructions

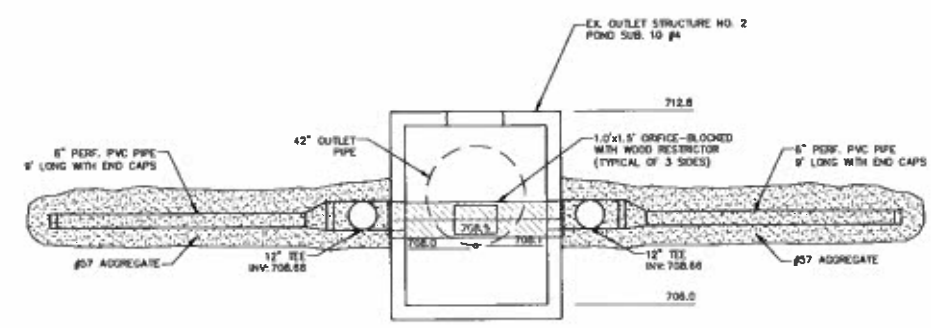


1. Model #2 3" - 5" Mariee Float Skimmer is to be attached to a 4" rigid pipe (Schedule 40 PVC for construction/temporary applications or HDPE for permanent applications). Rigid pipe should be 1.5 times the height of the outlet structure (8"), minimum of 8". For ponds requiring a pipe length greater than 16' additional weight may be required to counteract buoyancy.
2. Rigid pipe to be attached to 4" pipe stubbed out of outlet structure or through dam. Flexible pipe with couplings to attach 4" rigid pipe to 4" PVC or HDPE stub out is provided. If stubout is material other than Schedule 40 PVC or HDPE an alternate coupling may be required.
3. When attaching rigid pipe to skimmer coupling make sure to leave at least 1" space in coupling between pipes to allow for sufficient flexibility.
4. Basin should have a +/- 12" depression (skimmer pit) to effectively drain pond. It is preferable to line bottom of skimmer pit with stone, riprap or concrete. Water may remain in bottom of skimmer pit. It is recommended to slope basin at minimum 1% grade to skimmer pit.
5. Skimmer is shipped fully assembled. User attaches flexible couplings to rigid pipe and stubout from outlet structure. Securely tighten pipe clamps and install two screws (provided) through each connection to minimize twisting.
6. During installation take care to position skimmer in upright position with float level. Also verify that vent hole in flexible coupling is rotated to top of pipe.
7. 3" and 4" Orifice saddle is provided to convert standard 5" orifice. Center hole in saddle over 5" hole and secure using two pipe clamps provided.
8. Add maintenance rope, if required. Tie to skimmer and affix to outlet structure or post on bank. Insure sufficient rope so skimmer flotation is not restricted.
9. Flow rates are provided with details. Design engineer to select skimmer size as required to meet local requirements.
10. For technical support and/or assistance with installation, visit our website at [www.rymarwaterworks.com](http://www.rymarwaterworks.com) or call 855.697.9333.

803 Roper Creek Drive Greenville, SC 29615  
855.697.9333  
[www.rymarwaterworks.com](http://www.rymarwaterworks.com)  
[info@rymarwaterworks.com](mailto:info@rymarwaterworks.com)

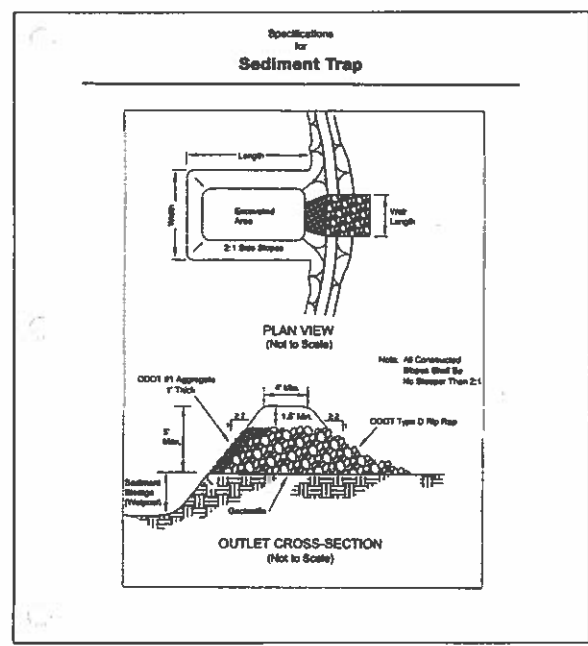


EX. OUTLET STRUCTURE NO. 2, POND SUB. 10 #4  
PLAN VIEW  
NOT TO SCALE



EX. OUTLET STRUCTURE NO. 2, POND SUB. 10 #4  
CROSS-SECTION VIEW  
NOT TO SCALE

**POND SUB. 10 #4 SEDIMENT CONTROL DEVICE DETAILS**



- Specifications for Sediment Traps**
1. Trap shall consist of the foundation, maintenance and removal of all sediment traps at the location designated on the drawings.
  2. Foundation shall be constructed to the dimensions specified on the drawings and approved prior to upstream line disturbance.
  3. The area beneath the sediment trap to be cleared, graded and sloped at a minimum depth of six (6) inches. The soil shall be placed as needed to facilitate sediment removal.
  4. Fill used for the sediment trap shall be installed in layers not exceeding 12 inches and shall be compacted by tamping with a hand tamper or other approved compacting equipment. Fill height shall be increased two (2) percent to allow for compaction/settlement. Construction shall not be commenced if either the certified or construction surface is frozen.
  5. The maximum height of sediment trap shall be the 0.5 foot. All cut and fill slopes shall be 2:1 (H:V) or better.
  6. A minimum storage volume below the crest of the outlet of 87 yd<sup>3</sup> for every acre of contributing drainage area shall be achieved at each location unless the drawings with additional sediment storage volume pointed below this section.
  7. Temporary shoring shall be established and maintained over the useful life of the project.
  8. The outlet for the sediment trap structure shall be constructed to the dimensions shown on the drawings.
  9. The outlet shall be constructed using the material specified on the drawings. Where geotextile is used, all pipe-tops shall be a minimum of two (2) feet or as specified by the manufacturer, whichever is greater. All couplings shall be made with the upper most layer placed out. Geotextile shall be lapped in at least 6" on the upstream side of the outlet.
  10. Warning signs and safety fence shall be placed around the traps and maintained over the life of the project.
  11. After all sediment-producing areas have been permanently stabilized, the structure and all associated equipment shall be removed. Debris shall be removed and placed in the treatment area and compacted. The area shall be graded to meet or exceed existing land surface and have positive drainage. The area shall be immediately revegetated.

INFORMATION OBTAINED FROM THE 2006 EDITION OF THE STATE OF OHIO'S "RAINWATER AND LAND DEVELOPMENT MANUAL"

REVISED	DATE	BY	DESCRIPTION
CITY OF NORTH RIDGEVILLE, OHIO DEPARTMENT OF ENGINEERING			
<b>SEDIMENT TRAPS</b>			
SCALE:	NOT TO SCALE	DATE:	10/01/08
DRAWN BY:	JAB/TJB	PROJECT NO.:	SWP-17

*Lawrence J. ...*  
CITY OF NORTH RIDGEVILLE, ENGINEER

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THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN BY AN APPROXIMATE MAP ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL UTILITIES BEFORE COMMENCING WORK. ANY DAMAGES TO ALL UTILITIES WHICH MAY BE OCCURRED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PROTECT ALL UTILITIES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

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INDIANAPOLIS, IN 46241-1311

SECTION: EAST  
TOWN: NORTH, RANGE  
CITY OF NORTH RIDGEVILLE  
LORAIN COUNTY, OHIO

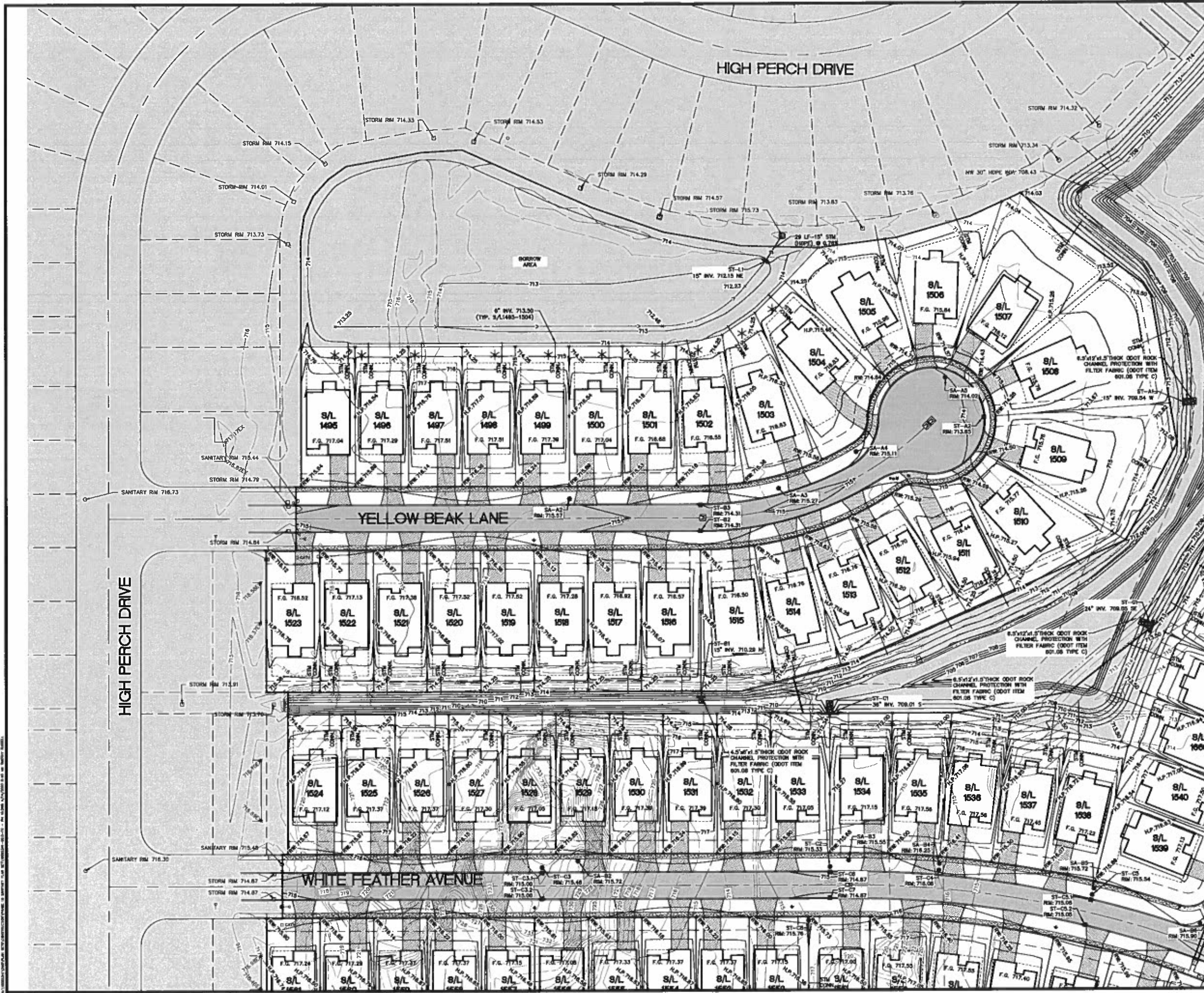
CLIENT: K. HOWNANIAN HOMES LLC  
MEADOW LAKES SUBDIVISION #18  
SANITARY CONSTRUCTION PLANS  
SWP 3 DETAILS &  
OUTLET STRUCTURE SEDIMENT CONTROL DEVICE DETAILS

DATE: JANUARY 11, 2019  
APRIL 13, 2020  
GDS, REVISED NO. 3

REVISIONS:

DR:	TDR	CH:	DH
P.M.	DH		
BOOK:	N/A		
JOB:	18002341		
SHEET NO.:	74		

SCALE: NOT TO SCALE  
DATE: 10/01/08 | DRAWN BY: JAB/TJB



**LEGEND**

- ~ PROPOSED SWALE
- RW RIGHT OF WAY
- H.P. HIGH POINT
- F.F. FINISH FLOOR
- F.G. FINISH GRADE AT HOUSE (GAR. F.F. - 0.33')



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THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN BY AN APPROXIMATE BUT NOT EXACTLY ACCURATE POSITION. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF ALL UTILITIES PRIOR TO ANY CONSTRUCTION WORK AND SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MAY BE INCURRED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND MARK UNDERGROUND UTILITIES.

- NOTES:**
- SEE SHEETS C8.0-C8.16 FOR STORM SEWER PROFILES.
  - EACH SUBLOT SHALL HAVE A 6" PVC STORM LATERAL. THE SUMP PUMP INTO THIS LATERAL (SEE SUMP PUMP CONNECTION DETAIL SHEET C11.1). DURING CONSTRUCTION OF THE SUBDIVISION AND PRIOR TO HOME CONSTRUCTION, THESE LATERALS WILL SERVE AS DRAINAGE FOR THE HOLDDOWN AREA OF THE HOUSE. LATERALS SHALL BE CONSTRUCTED AS SHOWN ON THESE PLANS AND SHALL BE CONSTRUCTED FOR THE DETAIL SHOWN ON THE MASS GRADING PLAN SECTION.
  - FOR CITY CLEARANCE 1468.08 CORNERS SHALL DRAW ONTO SPLASH BLOCKS.
  - SUBLOTS WITH STORM CONNECTIONS DIRECTLY TO POND SHALL HAVE AN INVERT ELEVATION AT OR ABOVE THE 100% ELEVATION FOR THAT POND.
  - EROSION CONTROL MATTING SHALL BE USED ON SLOPE/CHANNELS, SLOPES OF 3:1 OR STEEPER.
  - SEE SHEETS C10.4 AND C10.5 FOR HEADWALL DETAILS.

**NOTE:**  
LATERAL TO BE INSTALLED BY THE HOME BUILDER DURING HOME CONSTRUCTION.

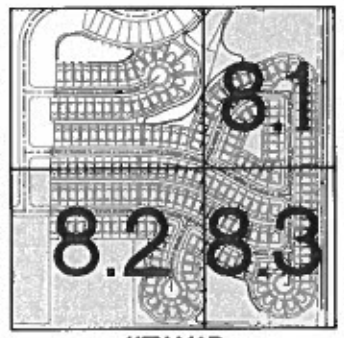
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INDIANAPOLIS, IN 46131

SECTION	EAST
TOWN	CITY OF NORTH RIDGEVILLE
COUNTY	LORAIN COUNTY, OHIO

CLIENT: K. HOWANIAN HOMES LLC  
MEADOW LAKES SUBDIVISION #18  
SANITARY CONSTRUCTION PLANS  
FINAL GRADING PLAN

DATE: JANUARY 11, 2019

DR.	TDR	DL	DH
P.A.	DH		
BOOK	N/A		
JOB	18002341		
SHEET NO.	8.0		

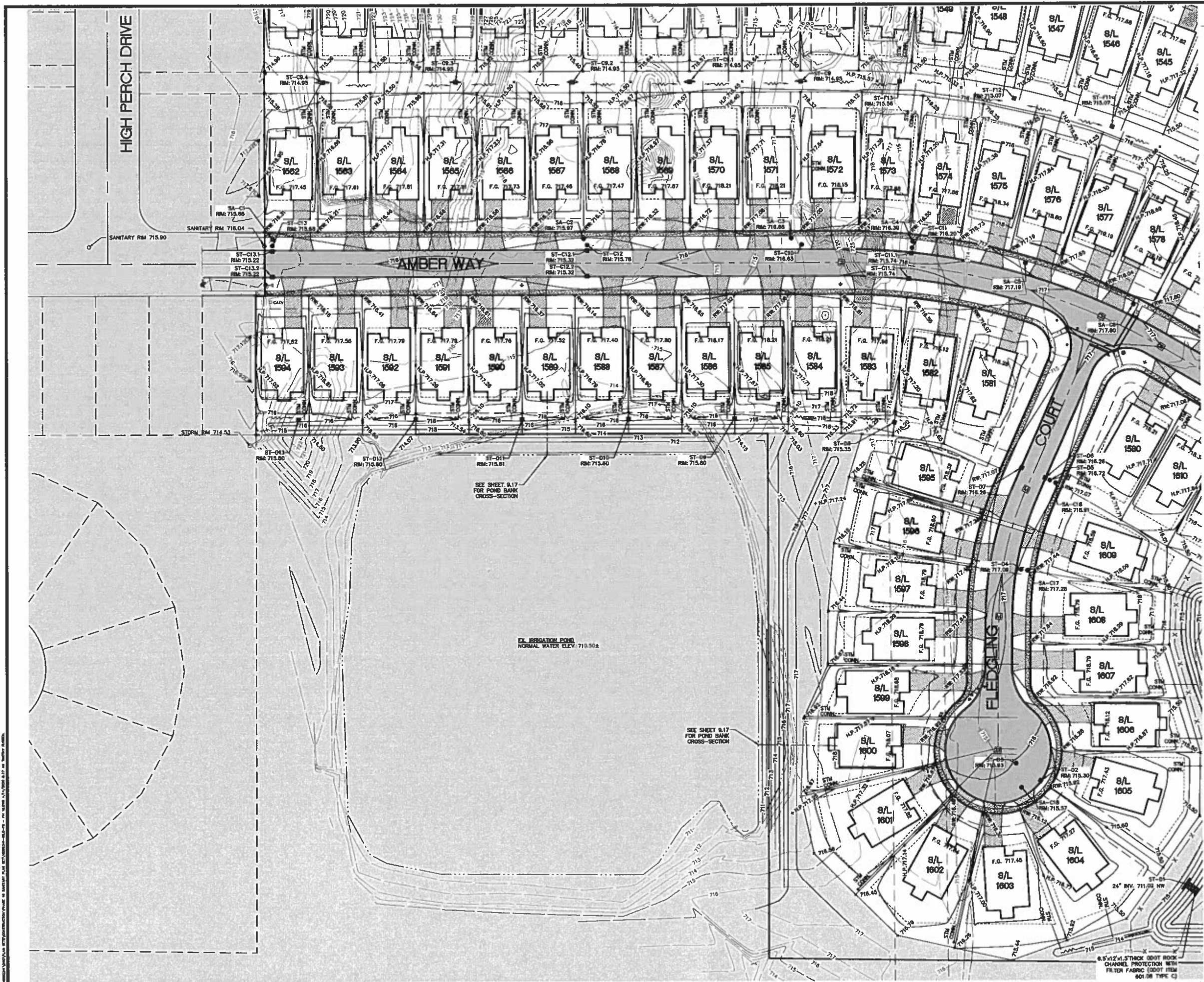


**KEY MAP**  
N.T.S.

REVISIONS  
SCALE 0 20 40  
1" = 40 FEET

DATE PLOTTED: 1/11/2019 10:45:00 AM



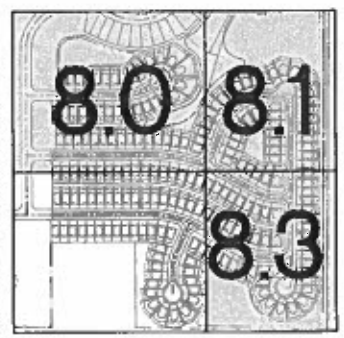


**LEGEND**

	PROPOSED SWALE
	RIGHT OF WAY
	HIGH POINT
	FINISH FLOOR
	FINISH GRADE AT HOUSE (GAR. F.F. = 0.33')

- NOTES:**
- SEE SHEETS C10-C16 FOR STORM SEWER PROFILES.
  - EACH SUBMIT SHALL HAVE A 6" PVC STORM LATERAL, THE SUMP PUMP INTO THIS LATERAL (SEE SUMP PUMP CONNECTION DETAIL, SHEET C11.1). DURING CONSTRUCTION OF THE SUBDIVISION AND PRIOR TO HOME CONSTRUCTION, THESE LATERALS WILL SERVE AS DRAINAGE FOR THE HOLDROOM AREA OF THE HOUSE. LATERALS SHALL BE CONSTRUCTED AS SHOWN ON THESE PLANS AND SHALL BE CONSTRUCTED PER THE DETAIL SHOWN ON THE MASS GRADING PLAN SECTION.
  - PER CITY ORDINANCE 1458.06 DOWNSPOUTS SHALL DRAIN ONTO SPLASH BLOCKS.
  - SUBLOTS WITH STORM CONNECTIONS DIRECTLY TO PONDS SHALL HAVE AN INVERT ELEVATION AT OR ABOVE THE 100% ELEVATION FOR THAT POND.
  - EROSION CONTROL MATTING SHALL BE USED ON SLOPE/CHANNEL SLOPES OF 3:1 OR STEEPER.
  - SEE SHEETS C10.4 AND C10.5 FOR HEADWALL DETAILS.

REARYARD SWALE DETAIL  
S.T.S.



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THE LOCATION OF UTILITIES AND DEPTHS ARE NOT GUARANTEED. THE USER SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION OF UTILITIES PRIOR TO ANY EXCAVATION. THE USER SHALL BE RESPONSIBLE FOR OBTAINING THE NECESSARY PERMITS FROM THE APPROPRIATE AGENCIES. THE USER SHALL BE RESPONSIBLE FOR OBTAINING THE NECESSARY PERMITS FROM THE APPROPRIATE AGENCIES. THE USER SHALL BE RESPONSIBLE FOR OBTAINING THE NECESSARY PERMITS FROM THE APPROPRIATE AGENCIES.

**NOTICE:**  
CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF THE CONSTRUCTION WORKERS AND THE PUBLIC. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF THE CONSTRUCTION WORKERS AND THE PUBLIC. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF THE CONSTRUCTION WORKERS AND THE PUBLIC.

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INDIANAPOLIS, IN 46241-2000

SECTION	EAST
TOWN	CITY OF NORTH RIDGEVILLE
COUNTY	LORAIN COUNTY, OHIO

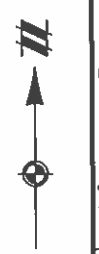
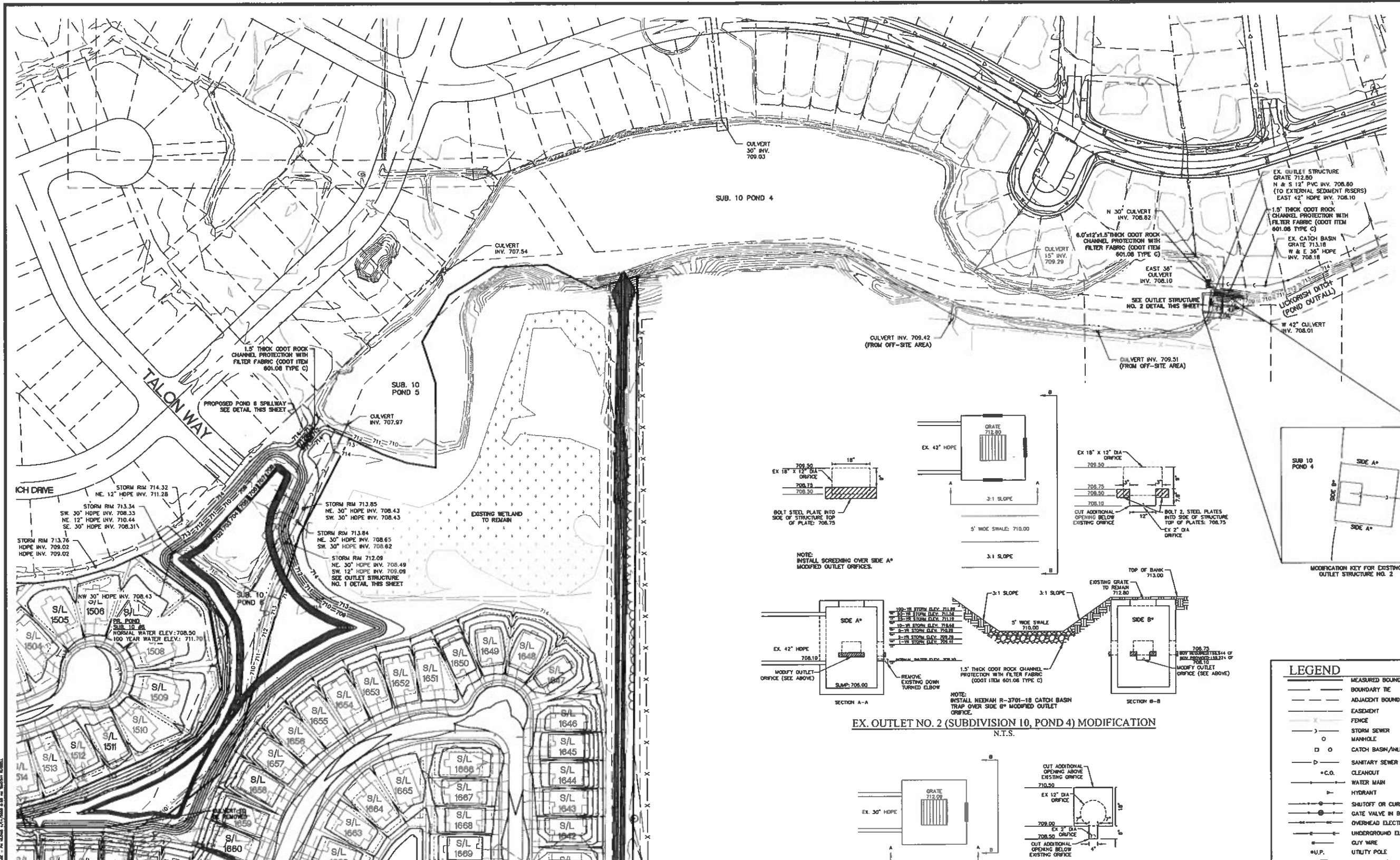
CLIENT  
K. HOWANIAN HOMES LLC  
MEADOW LAKES SUBDIVISION #18  
SANITARY CONSTRUCTION PLANS  
FINAL GRADING PLAN

DATE  
JANUARY 11, 2019

REVISIONS	
SCALE	0 20 40 1" = 40 FEET
DR.	TDR
CH.	DH
P.M.	DH
BOOK	N/A
JOB	18002341
SHEET NO.	8.2







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NOTICE: CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. NEITHER THE OWNER NOR THE DESIGNER SHALL BE RESPONSIBLE FOR SAFETY OF THE WORK OR PERSONS DAMAGED BY THE WORK OF ANY HEAVY STRUCTURES, OR OF ANY OTHER PERSONS.

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NORTH RIDGEVILLE, OH 44131  
440.346.6200

SECTION NORTH, RANGE EAST  
TOWN CITY OF NORTH RIDGEVILLE  
COUNTY LORAIN COUNTY, OHIO

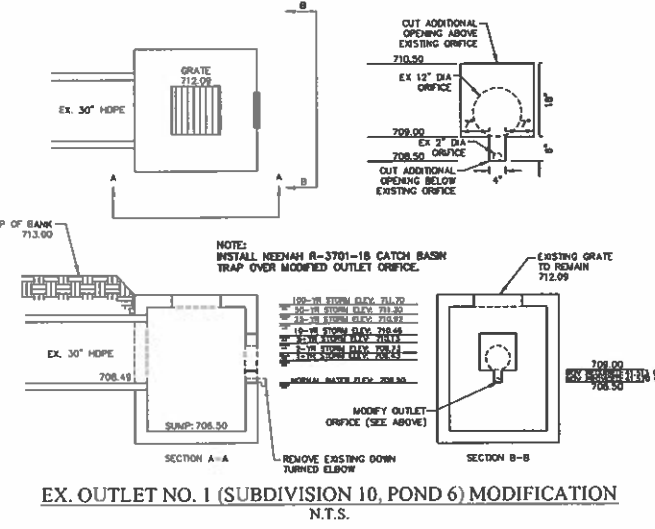
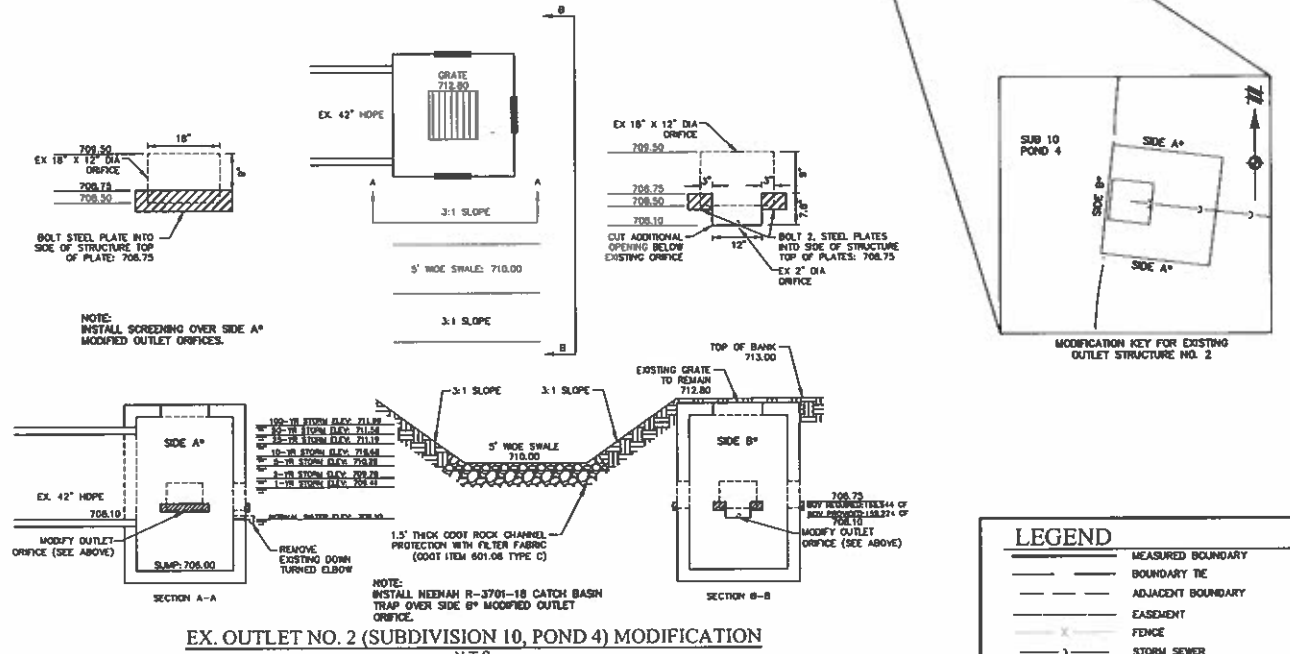
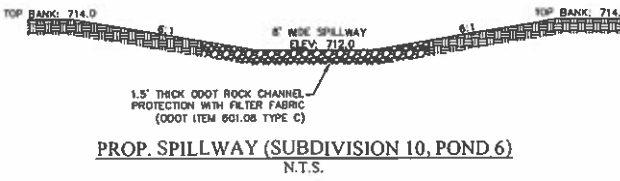
CLIENT K. HOWMANIAN HOMES LLC  
MEADOW LAKES SUBDIVISION #18  
SANITARY CONSTRUCTION PLANS  
EXISTING POND AND OUTLET STRUCTURE MODIFICATIONS

DATE JANUARY 11, 2019  
APRIL 13, 2009  
OZA SUBMITTAL NO. 3

REVISIONS  
SCALE 0 40 80  
1" = 80 FEET  
DR. TDR CH. DH  
P.A. DH  
BOOK N/A  
JOB 18002341  
SHEET NO. 84

CAD FILE: 18002341-CAL-001-001.dwg - PH 18002341

BENCHMARKS				
NO.	DESCRIPTION	ELEVATION	NORTHING	EASTING
1	SANITARY MH RIM	716.73	628941.9440	2094368.2390
2	SANITARY MH RIM	715.91	628256.773	2094372.243



- LEGEND**
- MEASURED BOUNDARY
  - BOUNDARY BY ADJACENT BOUNDARY
  - EASEMENT
  - FENCE
  - STORM SEWER MANHOLE
  - CATCH BASIN/INLET
  - SANITARY SEWER
  - CLEANOUT
  - WATER MAIN
  - HYDRANT
  - SHUTOFF OR CURB BOX
  - GATE VALVE IN BOX
  - OVERHEAD ELECTRIC
  - UNDERGROUND ELECTRIC
  - CLY WIRE
  - UTILITY POLE
  - ELECTRICAL BOX /METER
  - UNDERGROUND TELEPHONE
  - GAS
  - GAS RISER
  - TELEPHONE BOX
  - CURB AND GUTTER
  - BOLLARD
  - SIGN
  - GAS VALVE
  - GAS METER
  - WATER METER
  - CALCULATED POINT
  - FOUND MONUMENT AS NOTED
  - SET 5/8" IRON PIN
  - RECORD
  - MEASURED
  - CALCULATED
  - PERMANENT PARCEL NUMBER



Know what's below.  
Call before you dig.

THE LOCATIONS OF CHANGES TO UNDERGROUND UTILITIES ARE SHOWN BY AN ARROW. ONLY THE CHANGES TO UNDERGROUND UTILITIES ARE RESPONSIBLY NOTED BY THE CONTRACTOR. THE CONTRACTOR SHALL OBTAIN THE EXACT LOCATION OF ALL UTILITIES BEFORE COMMENCING WORK AND AGREE TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MAY BE INCURRED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND UNDERGROUND UTILITIES.

NOTICE: CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE OWNER DOES NOT ASSUME ANY LIABILITY FOR SAFETY OF THE WORK OR PERSONS ENGAGED IN THE WORK, OR ANY NEARBY PROPERTIES, OR OF ANY OTHER PERSONS.

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SECTION  
TOWN NORTH, RANGE EAST  
CITY OF NORTH RIDGEVILLE  
LORAIN COUNTY, OHIO

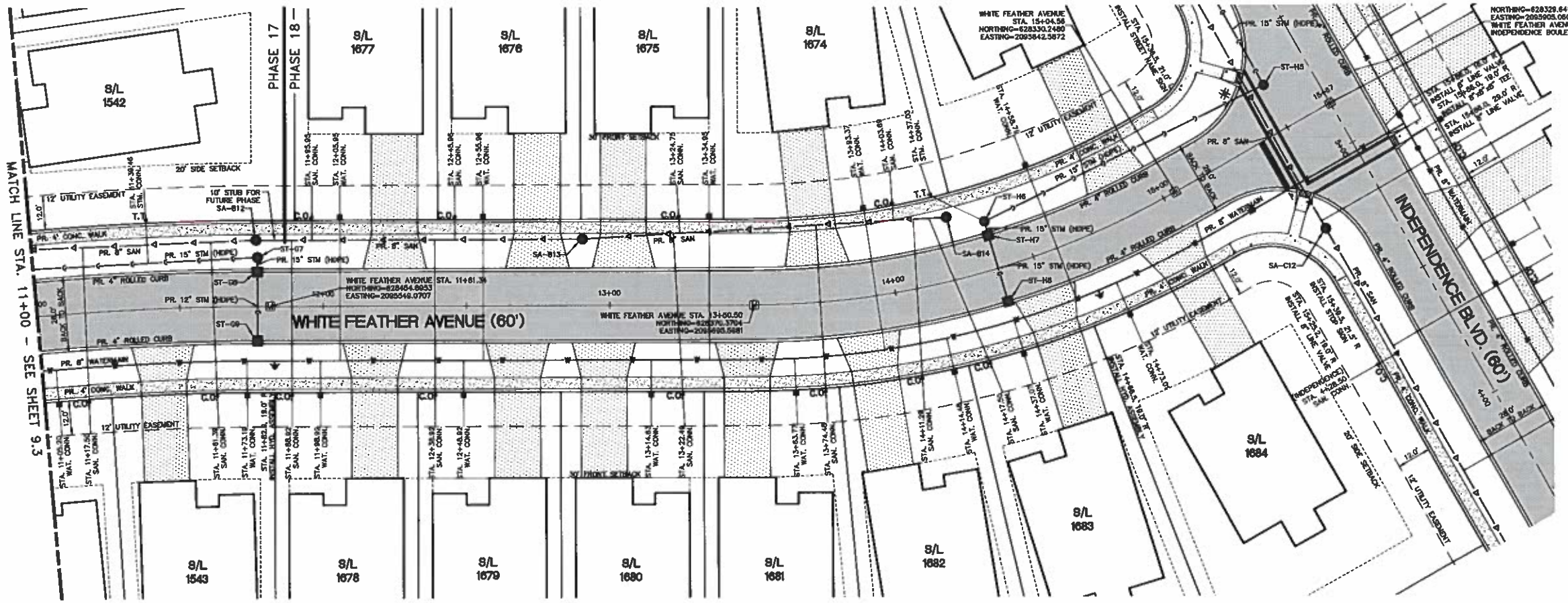
CLIENT  
K. HONANIAN HOMES LLC  
MEADOW LAKES SUBDIVISION #18  
SANITARY CONSTRUCTION PLANS  
WHITE FEATHER AVENUE PLAN & PROFILE  
STA. 11+00 TO STA. 18+00

DATE  
JANUARY 11, 2019

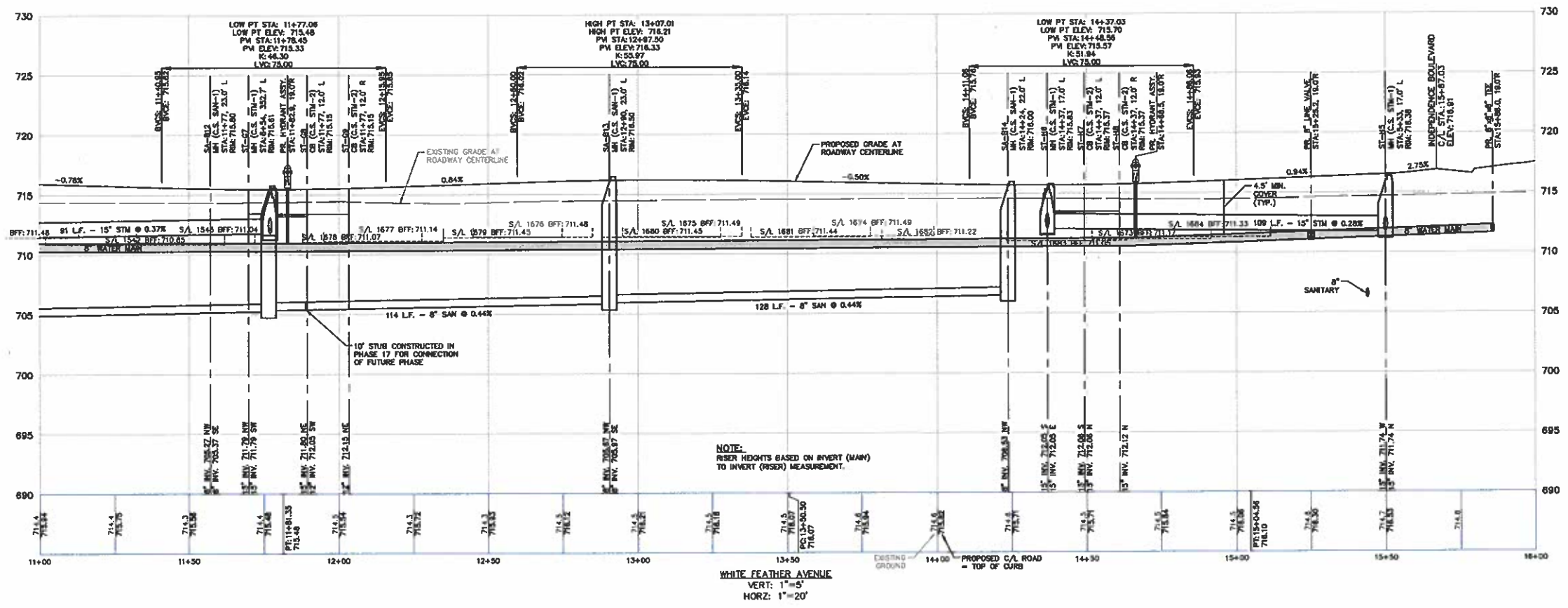
REVISIONS table with columns for date, description, and initials.

SCALE 1" = 20 FEET  
DR. TOR CH. DH  
BOOK N/A  
JOB 18002341  
SHEET NO. 94

CAD FILE: 18002341-08.4 PP (WHITE FEATHER).DWG



PLAN - WHITE FEATHER AVENUE  
SCALE: 1"=20'

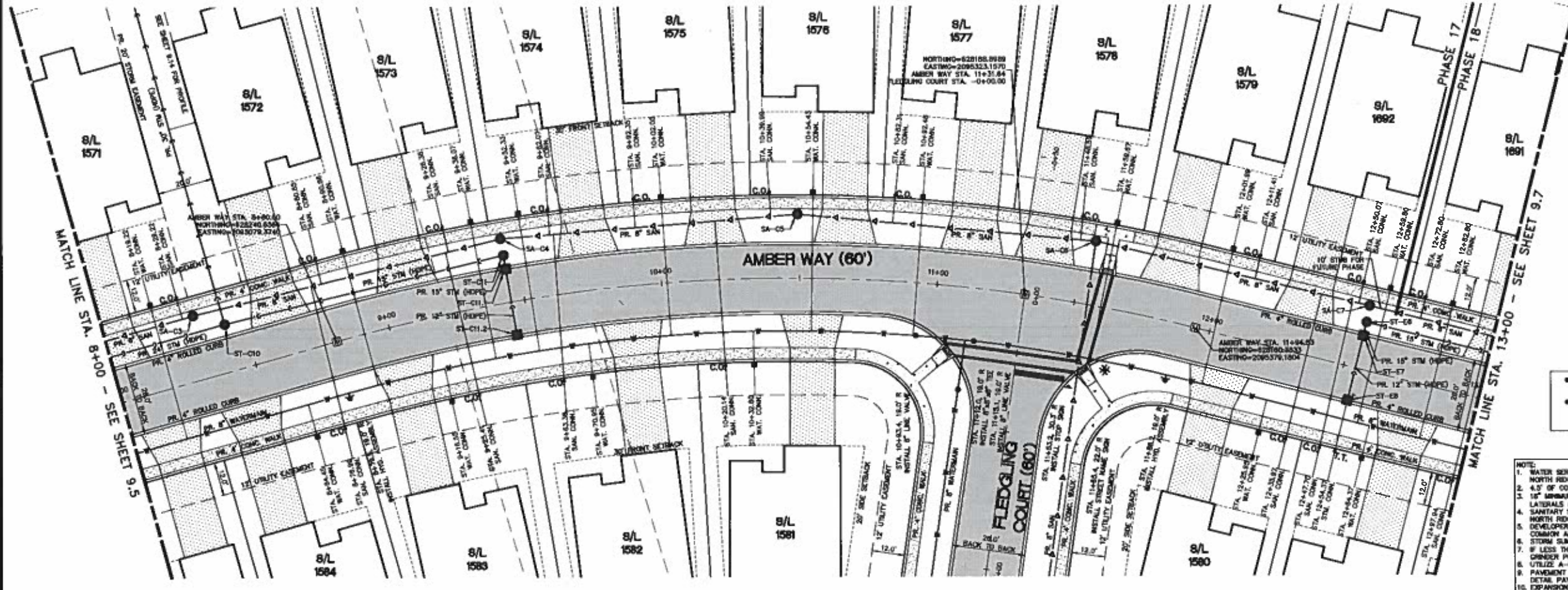


• T.T. = STORM SEWER CLEAOUT  
• C.O. = SANITARY SEWER CLEAOUT  
■ = WATER SERVICE BOX

- NOTE: 1. WATER SERVICE BOXES ARE TO BE PROVIDED PER CITY OF NORTH RIDGEVILLE STANDARD CONSTRUCTION DRAWING WAT-13. 2. 4.5\"/>

NOTE: RISEN HEIGHTS BASED ON RIVER (MAIN) TO INVERT (RISEN) MEASUREMENT.

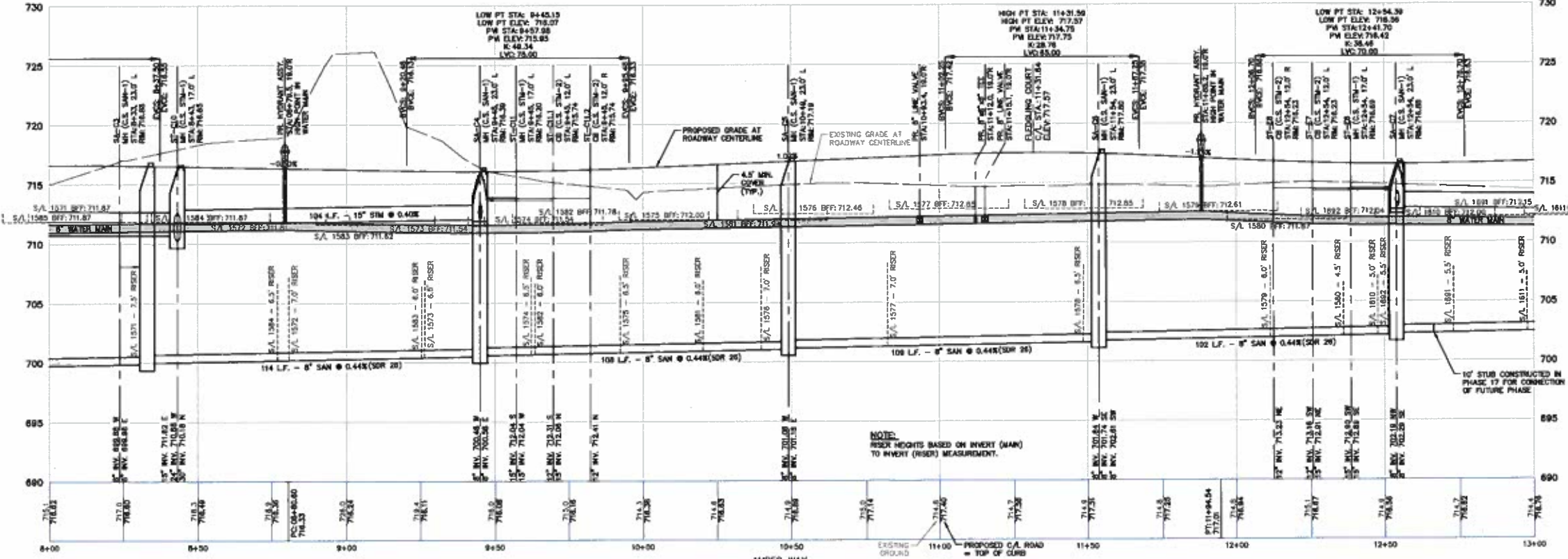
WHITE FEATHER AVENUE  
VERT: 1"=5'  
HORIZ: 1"=20'



PLAN - AMBER WAY  
SCALE: 1"=20'

- T.T. = STORM SEWER CLEANOUT
- C.O. = SANITARY SEWER CLEANOUT
- = WATER SERVICE BOX

- NOTE:
1. WATER SERVICE BOXES ARE TO BE PROVIDED PER CITY OF NORTH RIDGEVILLE STANDARD CONSTRUCTION DRAWING WAT-13.
  2. 4.5" OF COVER REQUIRED OVER 8" WATERMANS.
  3. 16" MINIMUM VERTICAL SEPARATION BETWEEN 8" SANITARY LATERALS AND 8" WATERMANS (TYP.)
  4. SANITARY SEWER CLEANOUTS ARE TO BE PROVIDED PER CITY OF NORTH RIDGEVILLE STANDARD CONSTRUCTION DRAWING SAN-8. DEVELOPER TO INSTALL THE PUBLIC SIDEWALKS ON FRONTAGE OF COMMON AREAS AND BLOCKS.
  5. STORM SLUMP PUMP REQUIRED ON ALL UNITS.
  6. 8" LESS THAN 2" BETWEEN TOP OF FOOTING AND TOP OF MAIN DRAINER PUMP IS REQUIRED.
  7. UTILIZE A-LOW HANDLE TO PIPE CONNECTIONS.
  8. PAVEMENT JOINTS TO HAVE A MAXIMUM SPACING OF 15' SEE DETAIL PAY-4 FOR JOINT REQUIREMENTS.
  9. EXPANSION JOINTS TO BE INSTALLED BETWEEN CONCRETE DRIVES AND CURBS CURBS DRIVEWAY CONSTRUCTION.
  10. SANITARY SEWERS AT A DEPTH OF 15' OR GREATER SHALL BE 30R 28.
  11. NO FENCES, SHEDS OR OTHER APPURTENANCES SHALL BE CONSTRUCTED IN THE 20' WIDE STORM SEWER EASEMENTS.



AMBER WAY  
VERT: 1"=5'  
HORIZ: 1"=20'

**811**  
Know what's below.  
Call before you dig.  
THE USER OF ANY DIGGING UTILITY SERVICES ARE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND INFORMATION FROM THE CITY OF NORTH RIDGEVILLE. THE USER SHALL BE RESPONSIBLE FOR THE SAFETY OF ALL PERSONNEL AND PROPERTY INVOLVED IN ANY DIGGING OPERATION. THE USER SHALL BE RESPONSIBLE FOR THE SAFETY OF ALL PERSONNEL AND PROPERTY INVOLVED IN ANY DIGGING OPERATION. THE USER SHALL BE RESPONSIBLE FOR THE SAFETY OF ALL PERSONNEL AND PROPERTY INVOLVED IN ANY DIGGING OPERATION.

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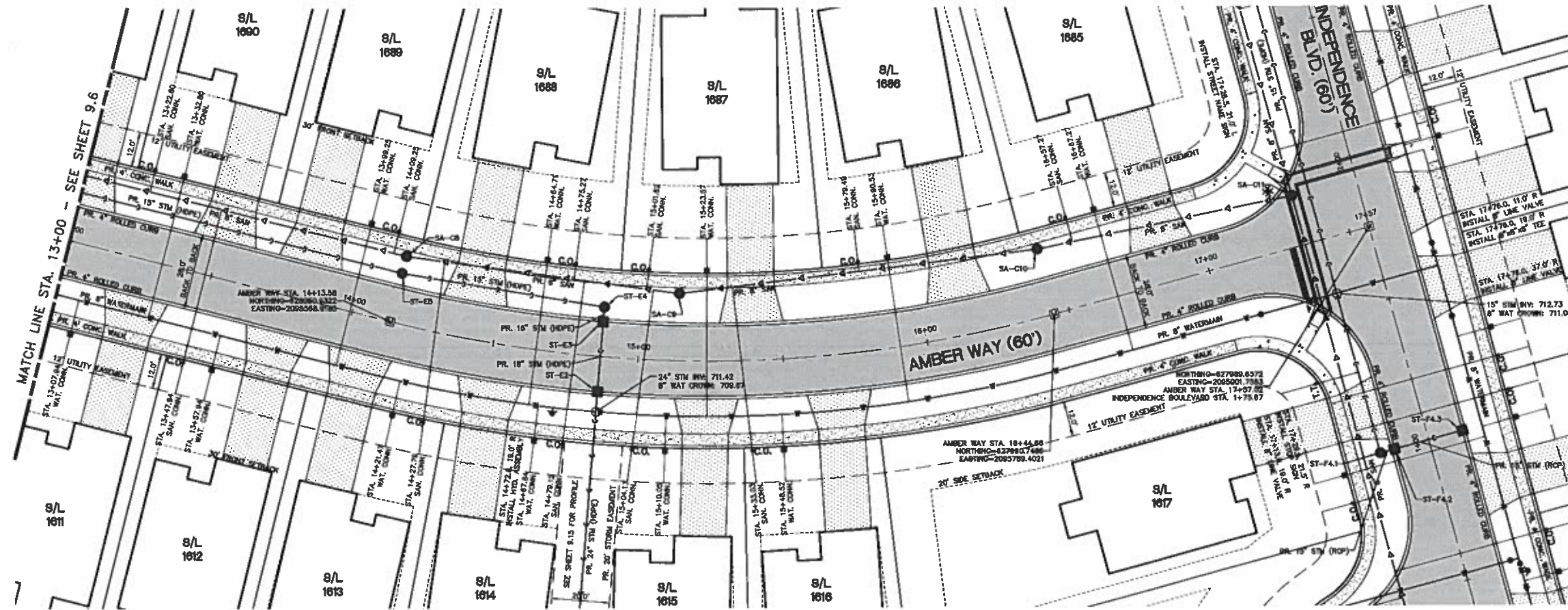
SECTION	EAST
TOWN	CITY OF NORTH RIDGEVILLE
COUNTY	LORAIN COUNTY, OHIO

CLIENT  
**K. HOWANIAN HOMES LLC**  
MEADOW LAKES SUBDIVISION #18  
SANITARY CONSTRUCTION PLANS  
AMBER WAY PLAN & PROFILE  
STA. 8+00 TO STA. 13+00

DATE  
JANUARY 11, 2019

DR.	TDR	CH.	DH
P.A.L.	DH		
BOOK	N/A		
JOB	18002341		
SHEET NO.	96		

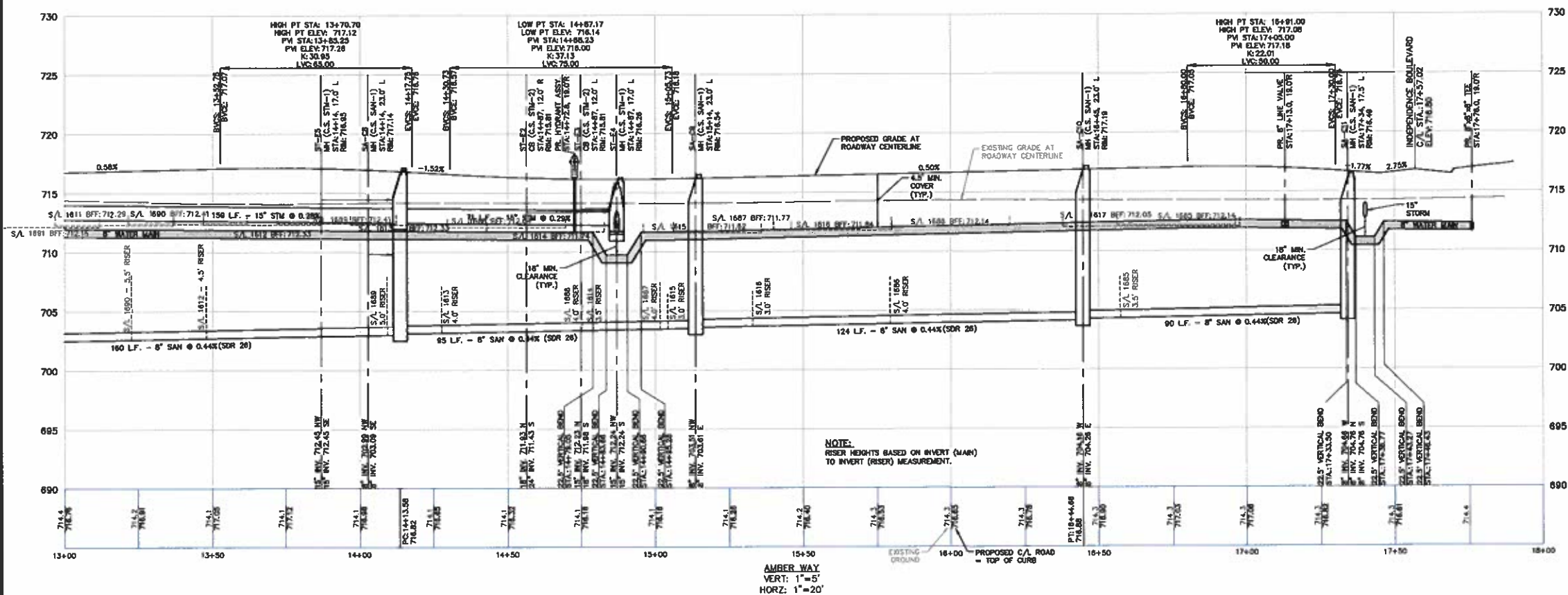
CAD FILE: 18002341-068 PP (AMBER WAY) - PH. TELING



PLAN - AMBER WAY  
SCALE: 1"=20'

• T.T. = STORM SEWER CLEANOUT  
 • C.O. = SANITARY SEWER CLEANOUT  
 ■ = WATER SERVICE BOX

- NOTE:
1. WATER SERVICE BOXES ARE TO BE PROVIDED PER CITY OF NORTH RIDGEVILLE STANDARD CONSTRUCTION DRAWING WAT-13.
  2. 4.5' OF COVER REQUIRED OVER 8" WATERMANS.
  3. 18" MINIMUM VERTICAL SEPARATION BETWEEN 8" SANITARY LATERALS AND 8" WATERMAIN (TYP).
  4. SANITARY SEWER CLEANOUTS ARE TO BE PROVIDED PER CITY OF NORTH RIDGEVILLE STANDARD CONSTRUCTION DRAWING SAN-8. DEVELOPER TO INSTALL THE PUBLIC SIDEWALKS ON FRONTAGE OF COMMON AREAS AND BLOCKS.
  5. STORM SUMP PUMP REQUIRED ON ALL UNITS.
  6. IF LESS THAN 2' BETWEEN TOP OF FOOTING AND TOP OF MAIN, GRINDER PUMP IS REQUIRED.
  7. UTILIZE A-LOCK MANHOLE TO PIPE CONNECTIONS.
  8. PAVEMENT JOINTS TO HAVE A MAXIMUM SPACING OF 10' SEE DETAIL PAV-4 FOR JOINT REQUIREMENTS.
  9. EXPANSION JOINTS TO BE INSTALLED BETWEEN CONCRETE DRIVES AND CURBS DURING DRIVEWAY CONSTRUCTION.
  10. SANITARY SEWERS AT A DEPTH OF 15' OR GREATER SHALL BE SDR 26.
  11. NO FENCES, SHEDS OR OTHER APPURTENANCES SHALL BE CONSTRUCTED IN THE 20' WIDE STORM SEWER EASEMENTS.



AMBER WAY  
VERT: 1"=5'  
HORIZ: 1"=20'

**811**  
Know what's below.  
Call before you dig.  
THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN ON THIS DRAWING AND ONLY ARE NOT BEING PROVIDED BY THE OWNER OR ITS REPRESENTATIVE. CONTRACTORS SHALL VERIFY THE EXACT LOCATION OF ALL UTILITIES BEFORE ANY CONSTRUCTION WORK. ANY DAMAGE TO UTILITIES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. CONTRACTORS SHALL BE RESPONSIBLE FOR THE SAFETY OF ALL PERSONNEL AND ALL DAMAGES WHICH MAY BE INCURRED BY ANY PERSONS FAILING TO EXERCISE DUE CARE AND ATTENTION IN THE WORK OF ANY HEAVY STRUCTURES OR OF ANY OTHER PERSONS.

NOTICE:  
CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. NEITHER THE OWNER NOR THE DESIGNER SHALL BE HELD RESPONSIBLE FOR SAFETY OF THE WORK OR PERSONS ENGAGED IN THE WORK OF ANY HEAVY STRUCTURES OR OF ANY OTHER PERSONS.

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 440.949.2000

SECTION	EAST
TOWN	NORTH RANGE
CITY	CITY OF NORTH RIDGEVILLE
COUNTY	LORAIN COUNTY, OHIO

CLIENT  
**K. HOWMANIAN HOMES LLC**  
**MEADOW LAKES SUBDIVISION #18**  
**SANITARY CONSTRUCTION PLANS**  
**AMBER WAY PLAN & PROFILE**  
**STA. 13+00 TO STA. 18+00**

DATE  
**JANUARY 11, 2019**  
 APR 13 2009  
 823 18002341

REVISIONS

NO.	DATE	DESCRIPTION

SCALE 0 10 20  
 1" = 20 FEET

DR. TDR CH. DH  
 P.M. DH  
 BOOK N/A  
 JOB 18002341  
 SHEET NO. 97

CAD FILE: 18002341-087\_PP (AMBER WAY) - PW (18.00)



Know what's below.  
Call before you dig.

The location of existing underground utilities are shown on this drawing. They may not be shown on this drawing. It is the responsibility of the contractor to verify the location of all utilities before any excavation work is done. The contractor shall be responsible for any damage to existing utilities. The contractor shall be responsible for any damage to existing structures. The contractor shall be responsible for any damage to existing property.

NOTICE: CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. NEITHER THE ENGINEER NOR THE DESIGNER SHALL BE RESPONSIBLE FOR SAFETY OF THE WORK OR PERSONS ENGAGED IN THE WORK, IF ANY HEAVY STRUCTURES, OR OF ANY OTHER PERSONS.

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PLEASANT VALLEY, OHIO 44131  
440.249.2200



SECTION EAST  
TOWN NORTH RANGE  
CITY OF NORTH RIDGEVILLE  
LORAIN COUNTY, OHIO

CLIENT  
K. HOVANIYAN HOMES LLC  
MEADOW LAKES SUBDIVISION #18  
SANITARY CONSTRUCTION PLANS  
HATCHING WAY PLAN & PROFILE  
STA. 0+00 TO STA. 3+50

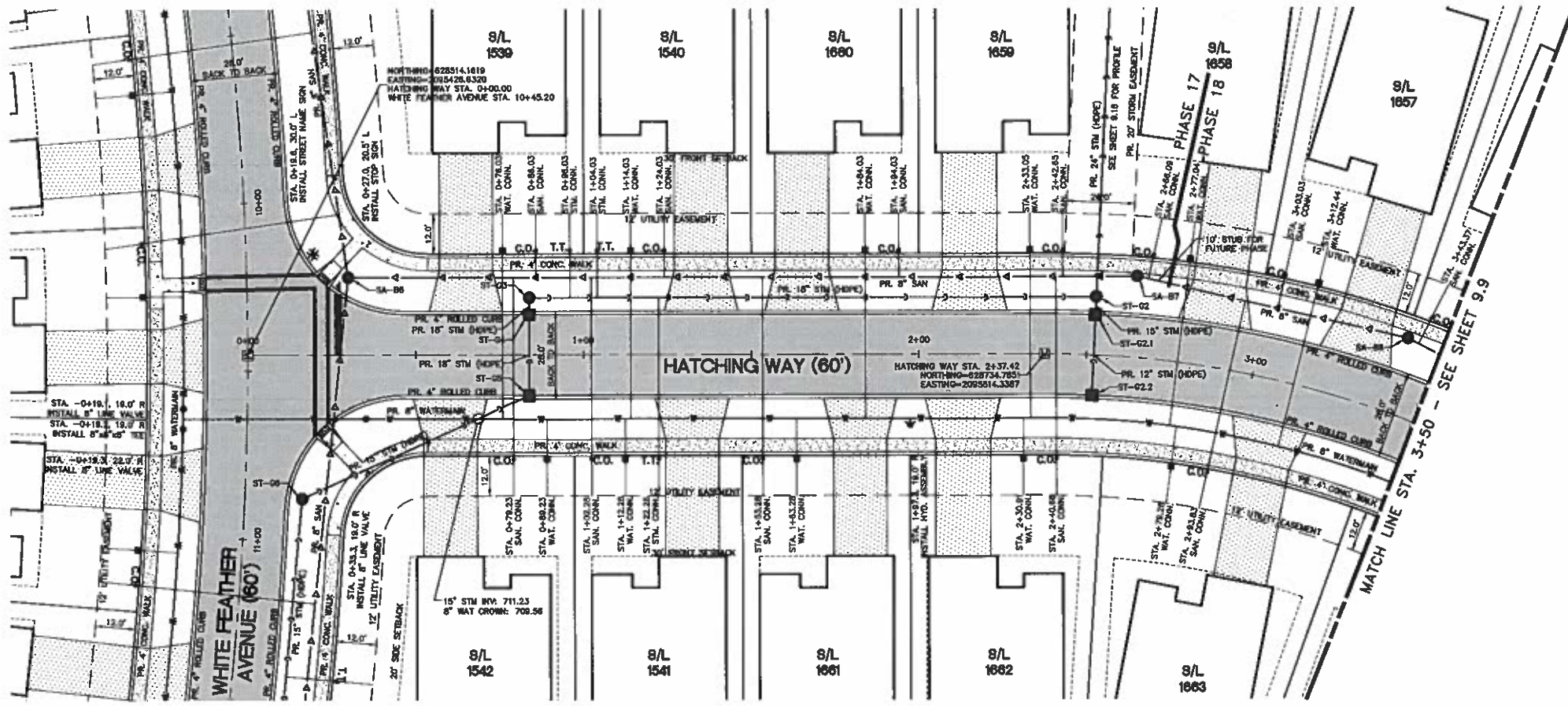
DATE  
JANUARY 11, 2019

REVISIONS

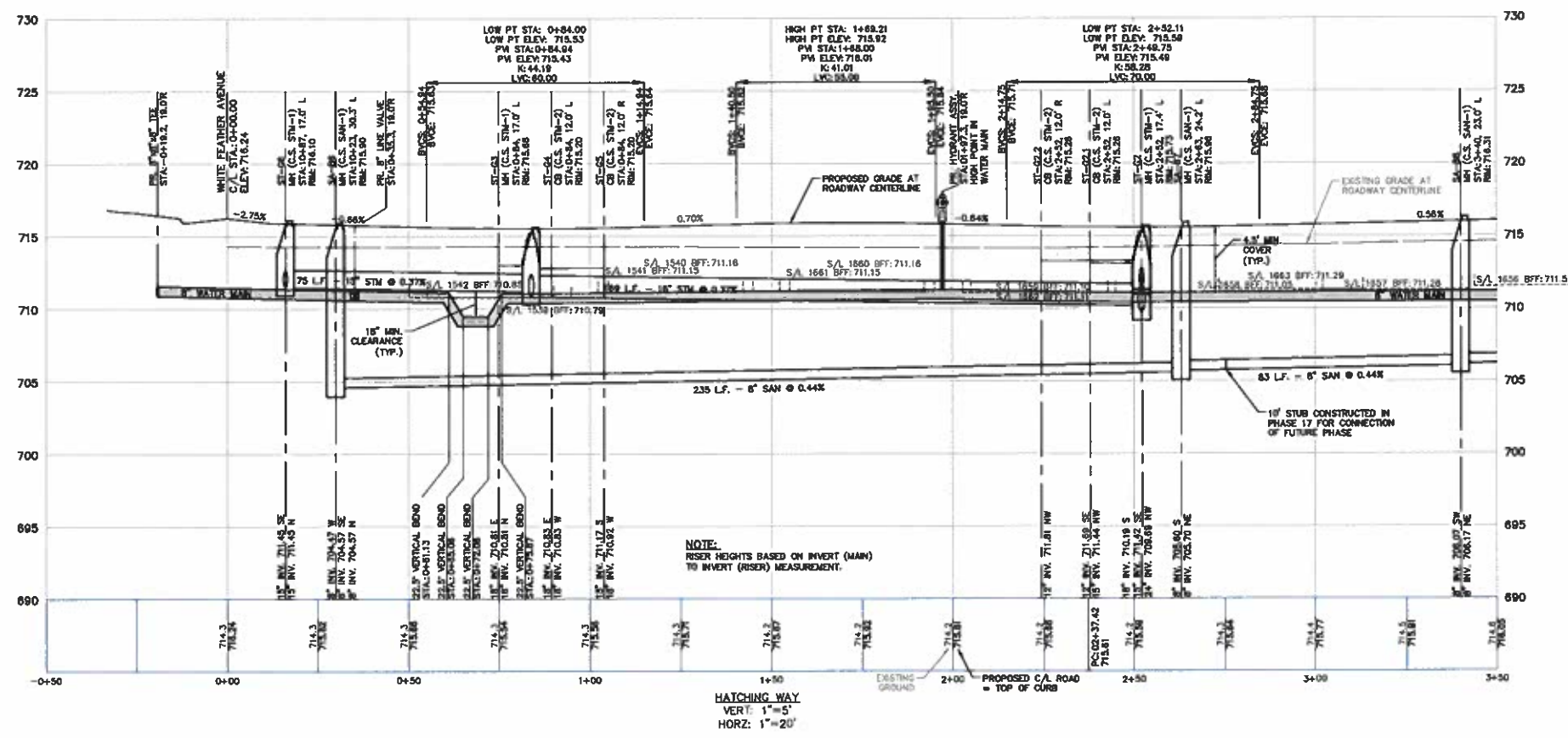
SCALE 0 10 20  
1" = 20 FEET

DR. TDR CH. DH  
P.L. DH  
BOOK N/A  
JOB 18002341  
SHEET NO. 9.8

CAD FILE: 18002341-08.8 PP (HATCHING WAY) - PH 18.08WS



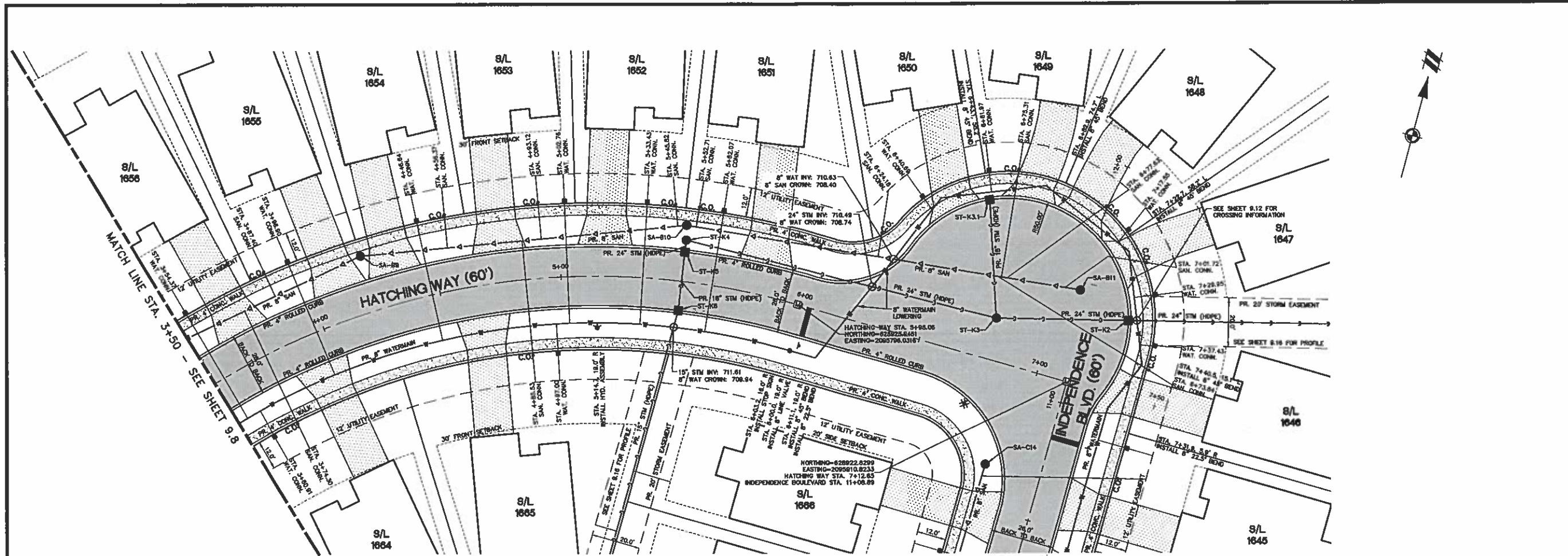
PLAN - HATCHING WAY  
SCALE: 1"=20'



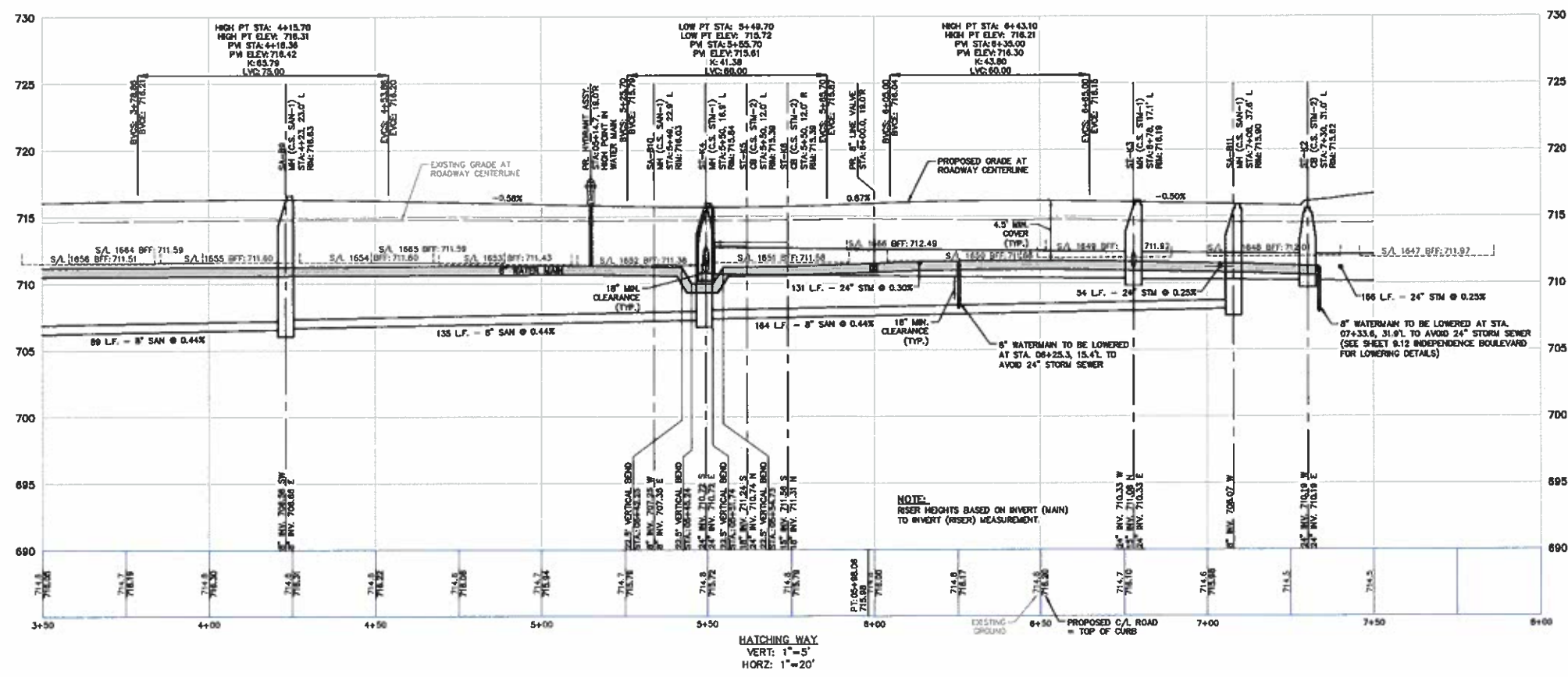
- T.T. - STORM SEWER CLEANOUT
- C.O. - SANITARY SEWER CLEANOUT
- - WATER SERVICE BOX

- NOTE:
1. WATER SERVICE BOXES ARE TO BE PROVIDED PER CITY OF NORTH RIDGEVILLE STANDARD CONSTRUCTION DRAWING WAT-13.
  2. 4.5' OF COVER REQUIRED OVER 8" WATERMANS.
  3. 18" MINIMUM VERTICAL SEPARATION BETWEEN 8" SANITARY LATERALS AND 8" WATERMAN (TYP).
  4. SANITARY SEWER CLEANOUTS ARE TO BE PROVIDED PER CITY OF NORTH RIDGEVILLE STANDARD CONSTRUCTION DRAWING SAN-8.
  5. DEVELOPER TO INSTALL THE PUBLIC SIDEWALKS ON FRONTAGE OF COMMON AREAS AND BLOCKS.
  6. STORM SUMP PUMP REQUIRED ON ALL UNITS.
  7. IF LESS THAN 2' BETWEEN TOP OF FOOTING AND TOP OF MAIN, GRINDER PUMP IS REQUIRED.
  8. UTILIZE A-LOW MANHOLE TO PIPE CONNECTIONS.
  9. PAVEMENT JOINTS TO HAVE A MAXIMUM SPACING OF 15' SEE DETAIL PAV-4 FOR JOINT REQUIREMENTS.
  10. EXPANSION JOINTS TO BE INSTALLED BETWEEN CONCRETE DRIVES AND CURBS DURING DRIVEWAY CONSTRUCTION.
  11. SANITARY SEWERS AT A DEPTH OF 15' OR GREATER SHALL BE 20'.
  12. NO FENCES, SHEDS OR OTHER APPURTENANCES SHALL BE CONSTRUCTED IN THE 20' WIDE STORM SEWER EASEMENTS.

NOTE:  
RISER HEIGHTS BASED ON INVERT (MAIN)  
TO INVERT (RISER) MEASUREMENT.



PLAN - HATCHING WAY  
SCALE: 1"=20'



HATCHING WAY  
VERT: 1"=5'  
HORIZ: 1"=20'

● C.O. - SANITARY SEWER CLEANOUT  
■ - WATER SERVICE BOX

- NOTE:
1. WATER SERVICE BOXES ARE TO BE PROVIDED PER CITY OF NORTH RIDGEVILLE STANDARD CONSTRUCTION DRAWING WAY-13.
  2. 4.5' OF COVER REQUIRED OVER 8" WATERMANS.
  3. 18" MINIMUM VERTICAL SEPARATION BETWEEN 6" SANITARY LATERALS AND 8" WATERMAN (TYP.)
  4. SANITARY SEWER CLEANOUTS ARE TO BE PROVIDED PER CITY OF NORTH RIDGEVILLE STANDARD CONSTRUCTION DRAWING SAN-3.
  5. DEVELOPER TO INSTALL THE PUBLIC SIDEWALKS ON FRONTAGE OF COMMON AREAS AND BLOCKS.
  6. STORM SUMP PUMP REQUIRED ON ALL UNITS.
  7. IF LESS THAN 2' BETWEEN TOP OF FOOTING AND TOP OF MAIN, GROUND PUMP IS REQUIRED.
  8. UTILIZE A-LOK MANHOLE TO PIPE CONNECTIONS
  9. PAVEMENT JOINTS TO HAVE A MAXIMUM SPACING OF 15' SEE DETAIL PLAN-4 FOR JOINT REQUIREMENTS.
  10. EXPANSION JOINTS TO BE INSTALLED BETWEEN CONCRETE DRIVES AND CURBS DURING DRIVEWAY CONSTRUCTION.
  11. SANITARY SEWERS AT A DEPTH OF 15' OR GREATER SHALL BE SOR 26.
  12. NO FENCES, SHEDS OR OTHER APPURTENANCES SHALL BE CONSTRUCTED IN THE 20' WIDE STORM SEWER EASEMENTS.

**811**  
Know what's below.  
Call before you dig.  
THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE MANNER ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE CONTRACTOR. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF ALL UTILITIES BEFORE COMMENCING WORK. ANY DAMAGES TO OR ALL DAMAGES WHICH MIGHT BE INCURRED BY THE CONTRACTOR OR HIS EMPLOYEES OR ANY OTHER PERSONS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE TO EXACTLY LOCATE AND MARK ANY AND ALL UNDERGROUND UTILITIES.

NOTICE:  
CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. NEITHER THE OWNER NOR THE ENGINEER SHALL BE HELD RESPONSIBLE FOR ANY ACCIDENTS OR DAMAGES WHICH MIGHT BE INCURRED BY THE CONTRACTOR OR HIS EMPLOYEES OR ANY OTHER PERSONS.

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NORTH RIDGEVILLE, OH 44131  
TEL: 666.850.0300

SECTION	EAST
TOWN	CITY OF NORTH RIDGEVILLE
COUNTY	LORAIN COUNTY, OHIO

CLIENT: K. HOWNANIAN HOMES LLC  
MEADOW LAKES SUBDIVISION #18  
SANITARY CONSTRUCTION PLANS  
HATCHING WAY PLAN & PROFILE  
STA. 3+50 TO STA. 8+00

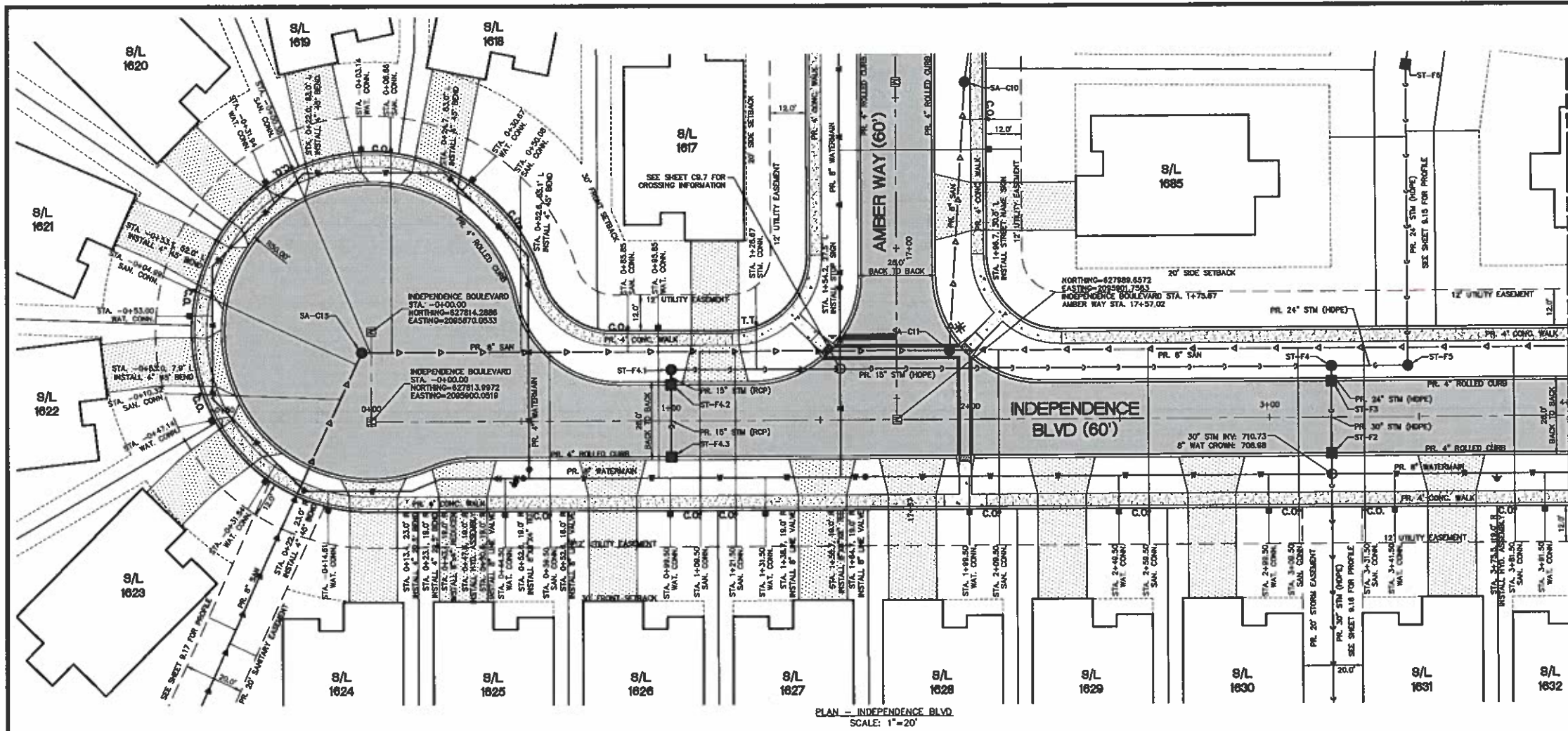
DATE: JANUARY 11, 2019

APR 13, 2009  
CPL: 18002341

REVISIONS

SCALE	0 10 20
1" = 20 FEET	
DR.	TDR
CH.	DH
P.L.M.	DH
BOOK	N/A
JOB	18002341
SHEET NO.	9,9

CAD FILE: 18002341-08.8 PP (HATCHING WAY) - PH 18.DWG

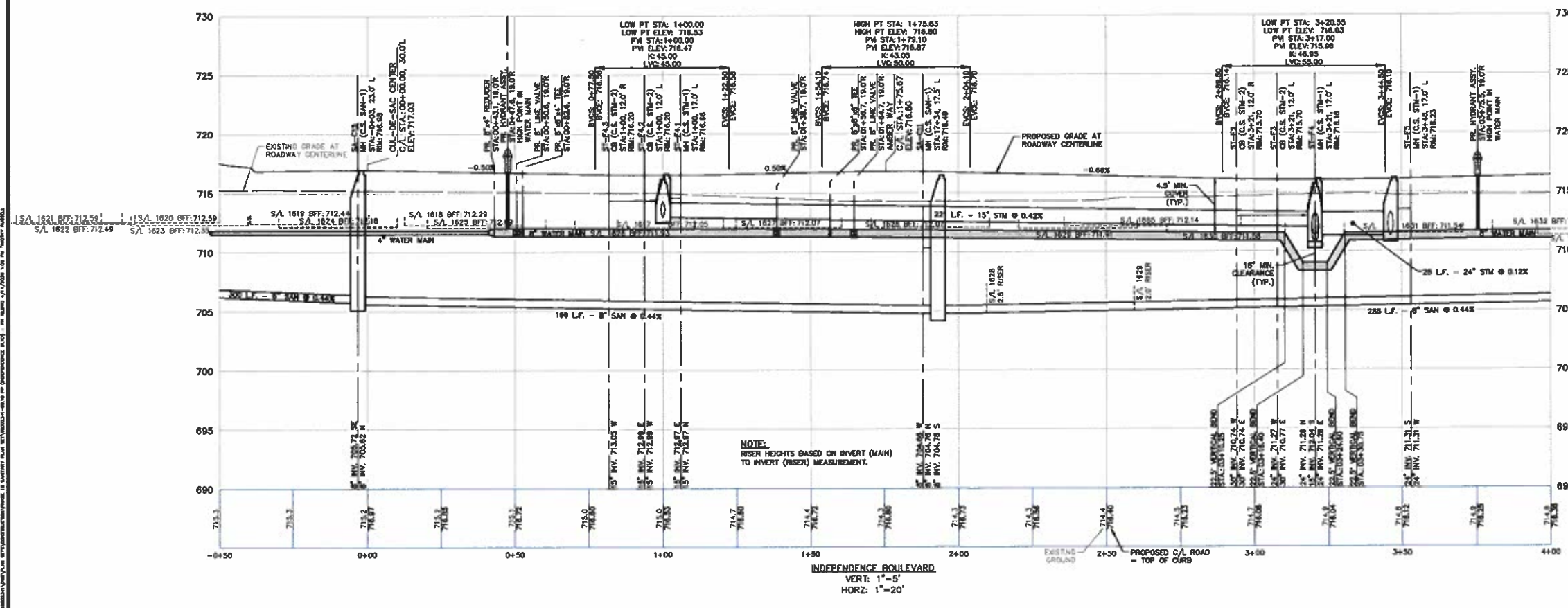


MATCH LINE STA. 4+00 - SEE SHEET 9.11

- T.T. - STORM SEWER CLEANOUT
- C.O. - SANITARY SEWER CLEANOUT
- - WATER SERVICE BOX

- NOTE:
1. WATER SERVICE BOXES ARE TO BE PROVIDED PER CITY OF NORTH RIDGEVILLE STANDARD CONSTRUCTION DRAWING MAT-13.
  2. 4.5" OF COVER REQUIRED OVER 8" WATERMANS.
  3. 18" MINIMUM VERTICAL SEPARATION BETWEEN 8" SANITARY LATERALS AND 6" WATERMANS (TYP.).
  4. SANITARY SEWER CLEANOUTS ARE TO BE PROVIDED PER CITY OF NORTH RIDGEVILLE STANDARD CONSTRUCTION DRAWING SAN-8.
  5. DEVELOPER TO INSTALL THE PUBLIC SIDEWALKS ON FRONTAGE OF COMMON AREAS AND BLOCKS.
  6. STORM SUMP PUMP REQUIRED ON ALL UNITS.
  7. 2" LESS THAN 2" BETWEEN TOP OF FOOTING AND TOP OF MAIN, GRINDER PUMP IS REQUIRED.
  8. UTILIZE A-LOCK MANHOLE TO PIPE CONNECTIONS.
  9. PAVEMENT JOINTS TO HAVE A MAXIMUM SPACING OF 15' SEE DETAIL PAY-4 FOR JOINT REQUIREMENTS.
  10. EXPANSION JOINTS TO BE INSTALLED BETWEEN CONCRETE DRIVES AND CURBS DURING DRIVEWAY CONSTRUCTION.
  11. SANITARY SEWERS AT A DEPTH OF 15' OR GREATER SHALL BE SDR 26.
  12. NO FENCES, SHEDS OR OTHER APPURTENANCES SHALL BE CONSTRUCTED IN THE 20' WIDE STORM SEWER EASEMENTS.

PLAN - INDEPENDENCE BLVD  
SCALE: 1"=20'



INDEPENDENCE BOULEVARD  
VERT: 1"=5'  
HORIZ: 1"=20'



Know what's below.  
Call before you dig.  
THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN BY AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDICATED BY THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE EXACT LOCATION OF ALL UTILITIES BEFORE COMMENCING WORK. ANY DAMAGE TO UTILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE EXACT LOCATION OF ALL UTILITIES BEFORE COMMENCING WORK. ANY DAMAGE TO UTILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR.

NOTICE: CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. HOWEVER, THE OWNER SHALL BE RESPONSIBLE FOR ANY DAMAGE TO UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE EXACT LOCATION OF ALL UTILITIES BEFORE COMMENCING WORK. ANY DAMAGE TO UTILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR.

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NORTH RIDGEVILLE, OHIO 44131  
440.949.2000



SECTION	EAST
TOWN	CITY OF NORTH RIDGEVILLE
	LORAIN COUNTY, OHIO

CLIENT  
K. HOWNANIAN HOMES LLC  
MEADOW LAKES SUBDIVISION #18  
SANITARY CONSTRUCTION PLANS  
INDEPENDENCE BLVD  
PLAN & PROFILE  
STA. -0+50 TO STA. 4+00

DATE  
JANUARY 11, 2019

NO.	DATE	BY	REVISIONS

SCALE	0 10 20
1" = 20 FEET	
DR.	TDR
CH.	DH
P.M.	DH
BOOK	N/A
JOB	18002341
SHEET NO.	9/10



Know what's below.  
Call before you dig.

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN BY AN APPROXIMATE BUT ONLY AND HAVE NOT BEEN INDICATED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. ANY ADJUSTMENTS TO BE MADE SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SAFETY OF THE WORK OF PERSONS ENGAGED IN THE WORK OF ANY HEAVY STRUCTURES OR OF ANY OTHER PERSONS.

NOTICE: CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SAFETY OF THE WORK OF PERSONS ENGAGED IN THE WORK OF ANY HEAVY STRUCTURES OR OF ANY OTHER PERSONS.

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SECTION  
TOWN NORTH RANGE  
CITY OF NORTH RIDGEVILLE  
LORAIN COUNTY, OHIO

CLIENT  
K. HOWMANIAN HOMES LLC  
MEADOW LAKES SUBDIVISION #18  
SANITARY CONSTRUCTION PLANS  
INDEPENDENCE BLVD  
PLAN & PROFILE  
STA. 4+00 TO STA. 7+50

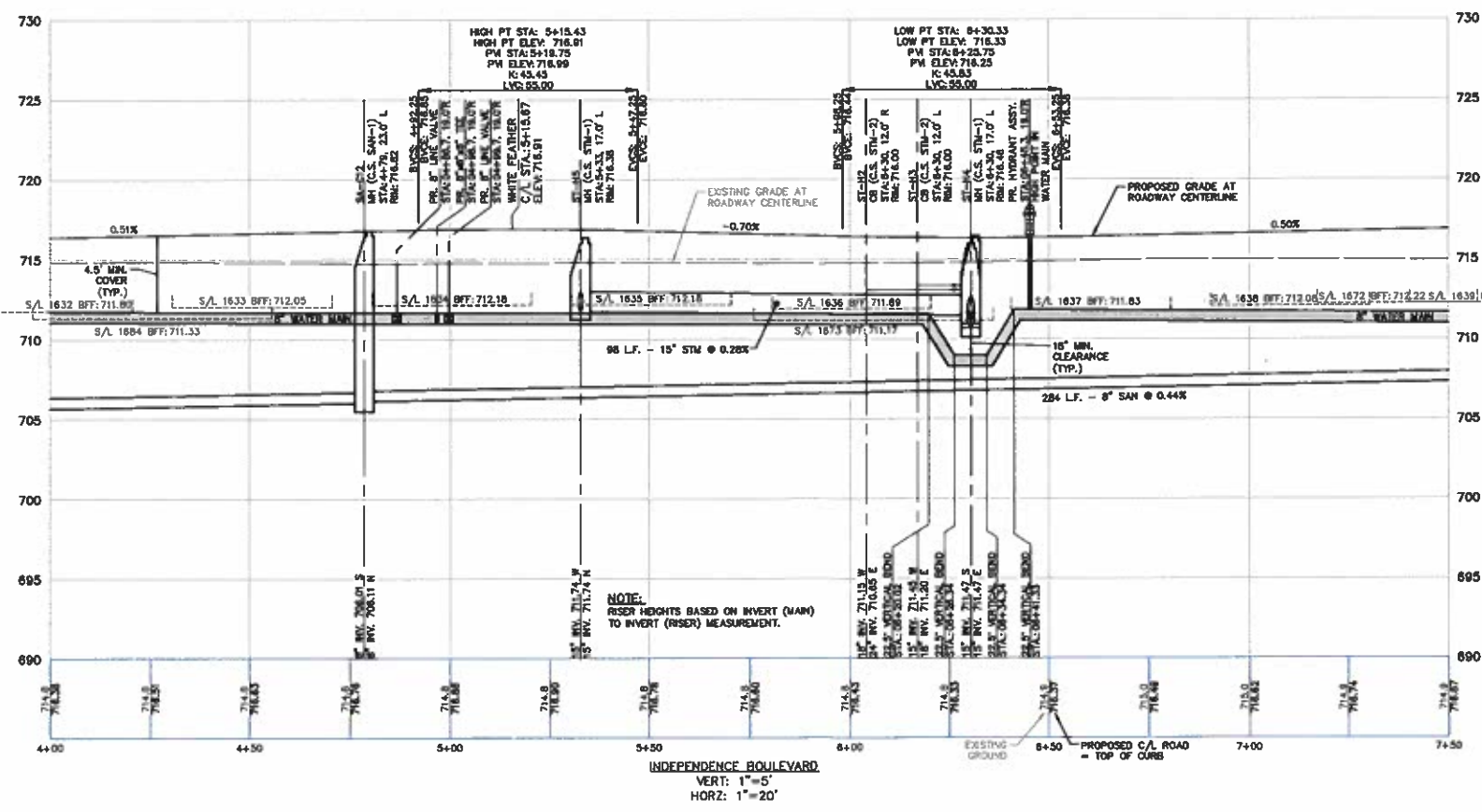
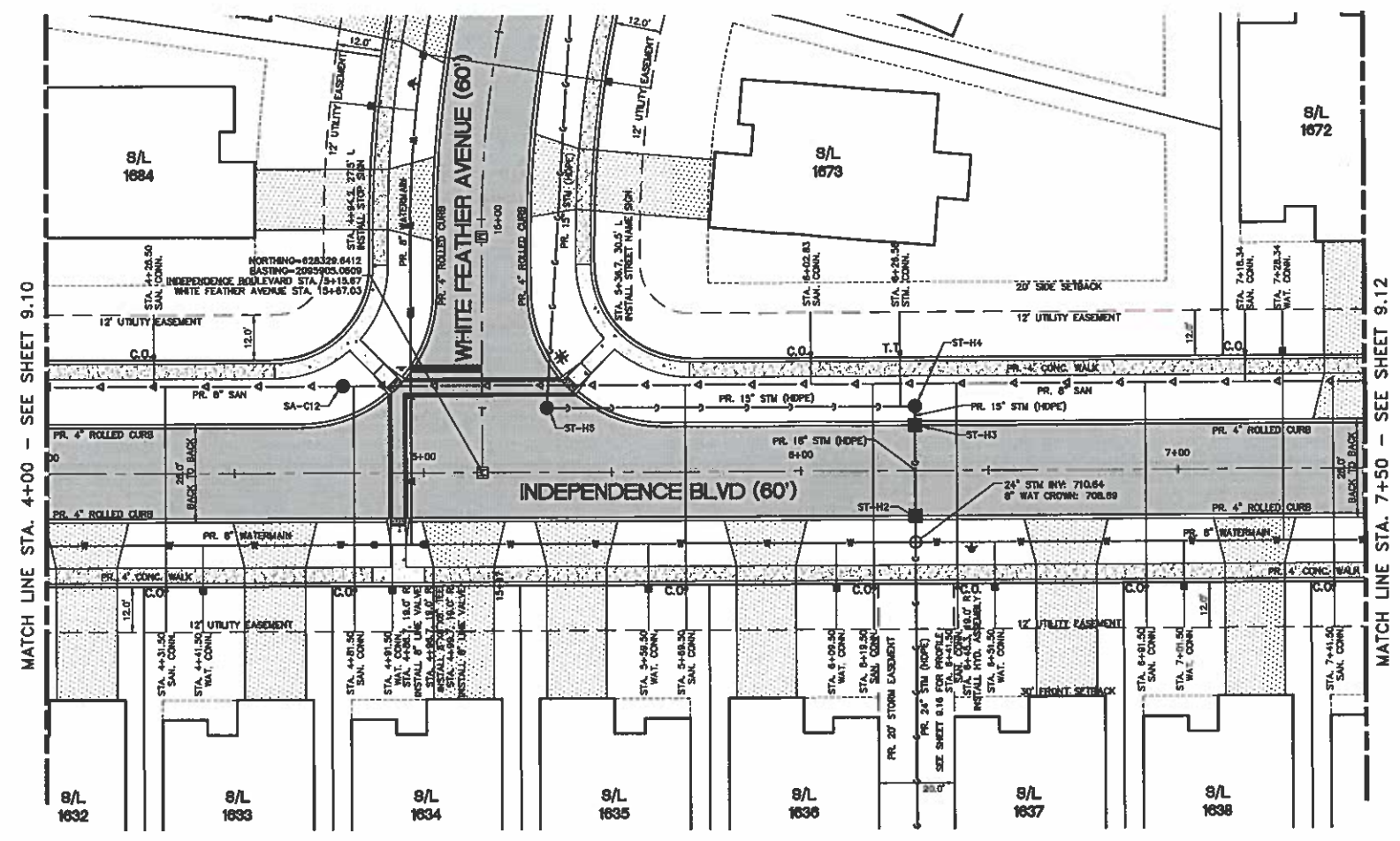
DATE  
JANUARY 11, 2019

APRIL 13, 2020  
0273 REVISED NO. 2

REVISIONS

SCALE  
0 10 20  
1" = 20 FEET

DR. TDR CH. DH  
P.M. DH  
BOOK N/A  
JOB 18002341  
SHEET NO. 9/11



- T.T. = STORM SEWER CLEANOUT
- C.O. = SANITARY SEWER CLEANOUT
- = WATER SERVICE BOX

- NOTE:
1. WATER SERVICE BOXES ARE TO BE PROVIDED PER CITY OF NORTH RIDGEVILLE STANDARD CONSTRUCTION DRAWING WAT-13.
  2. 4.5" OF COVER REQUIRED OVER 8" WATERMANS.
  3. 18" MINIMUM VERTICAL SEPARATION BETWEEN 6" SANITARY LATERALS AND 8" WATERMAN (TYP.)
  4. SANITARY SEWER CLEANOUTS ARE TO BE PROVIDED PER CITY OF NORTH RIDGEVILLE STANDARD CONSTRUCTION DRAWING SAN-B.
  5. DEVELOPER TO INSTALL THE PUBLIC SIDEWALKS ON FRONTAGE OF COMMON AREAS AND BLOCKS.
  6. STORM SUMP PUMP REQUIRED ON ALL UNITS.
  7. IF LESS THAN 2' BETWEEN TOP OF FOOTING AND TOP OF MAIN, GRINDER PUMP IS REQUIRED.
  8. UTILIZE A-LOK MANHOLE TO PIPE CONNECTIONS
  9. PAVEMENT JOINTS TO HAVE A MAXIMUM SPACING OF 15' SEE DETAIL PAV-4 FOR JOINT REQUIREMENTS.
  10. EXPANSION JOINTS TO BE INSTALLED BETWEEN CONCRETE DRIVES AND CURBS DURING DRIVEWAY CONSTRUCTION.
  11. SANITARY SEWERS AT A DEPTH OF 15' OR GREATER SHALL BE SDR 26.
  12. NO FENCES, SHEDS OR OTHER APPURTENANCES SHALL BE CONSTRUCTED IN THE 20' WIDE STORM SEWER EASEMENTS.

I:\Projects\18002341-02.11 PP (INDEPENDENCE BLVD) - PH (BLVD)

C:\D\FLE (18002341-02.11 PP (INDEPENDENCE BLVD) - PH (BLVD)





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SECTION EAST  
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CITY OF NORTH RIDGEVILLE  
LORAIN COUNTY, OHIO

CLIENT K. HOWANIAN HOMES LLC  
MEADOW LAKES SUBDIVISION #18  
SANITARY CONSTRUCTION PLANS  
INDEPENDENCE BLVD  
PLAN & PROFILE  
STA. 7+50 TO STA. 12+00

DATE JANUARY 11, 2019

APR 13, 2020  
CPA BIRTHDAY NO. 2

REVISIONS

SCALE 0 10 20  
1" = 20 FEET

DR. TDR / CH. DH

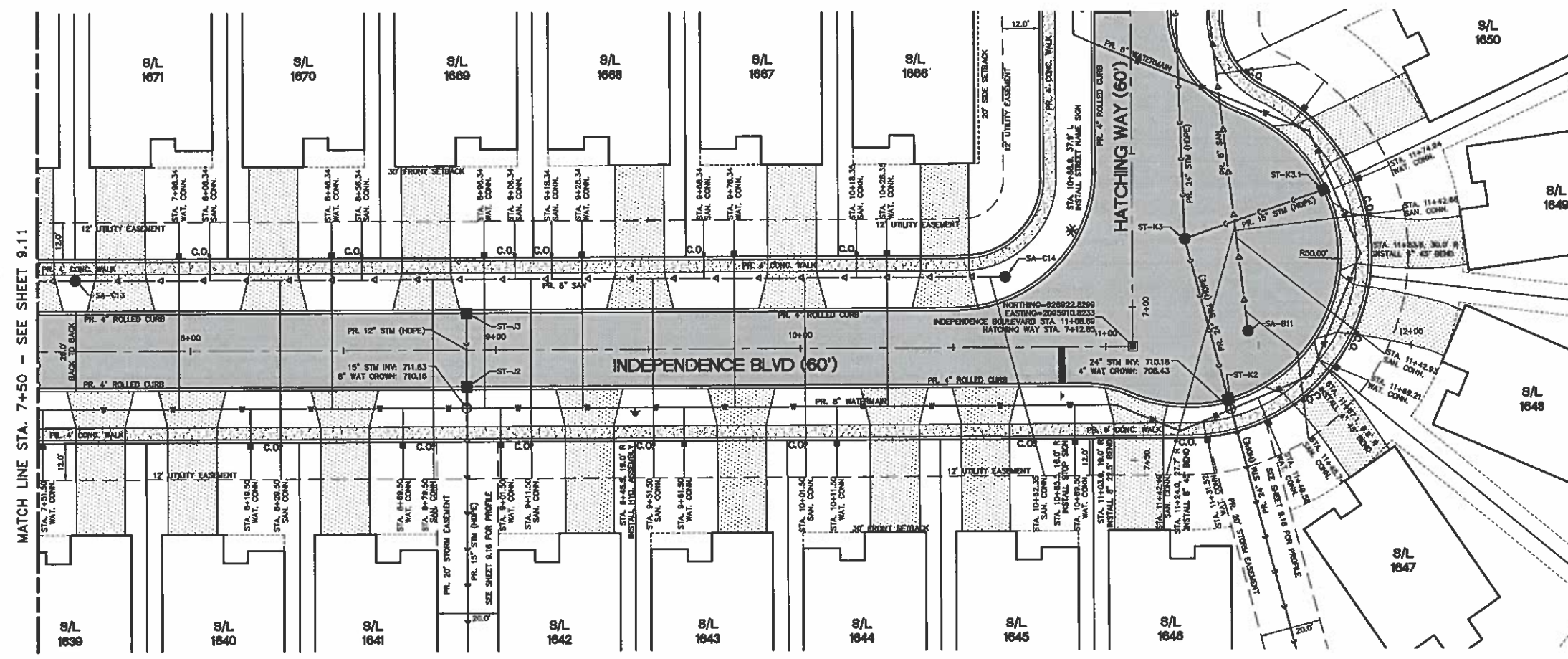
P.M. DH

BOOK N/A

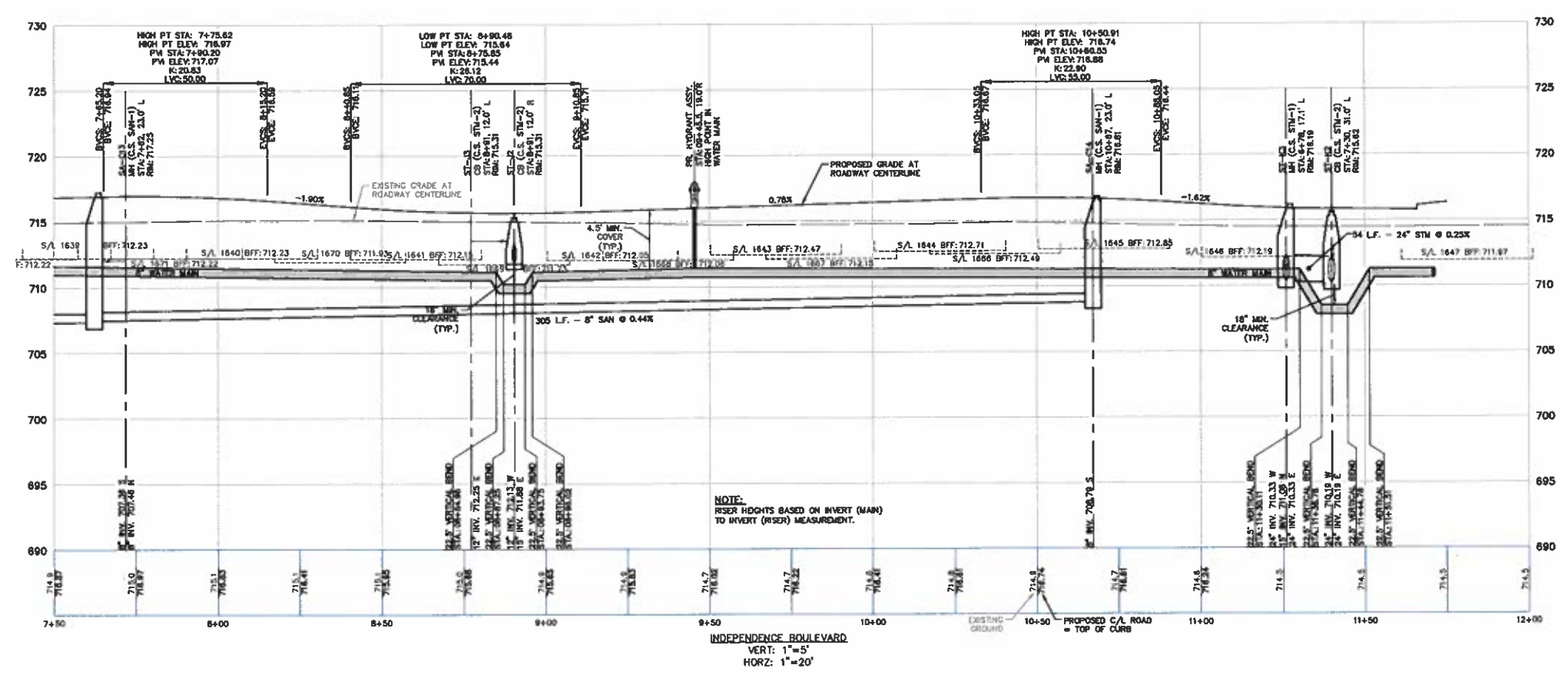
JOB 18002341

SHEET NO. 9.12

CAD FILE: 18002341-09.12.PP (INDEPENDENCE BLVD) - PR. 18.000



PLAN - INDEPENDENCE BLVD  
SCALE: 1"=20'

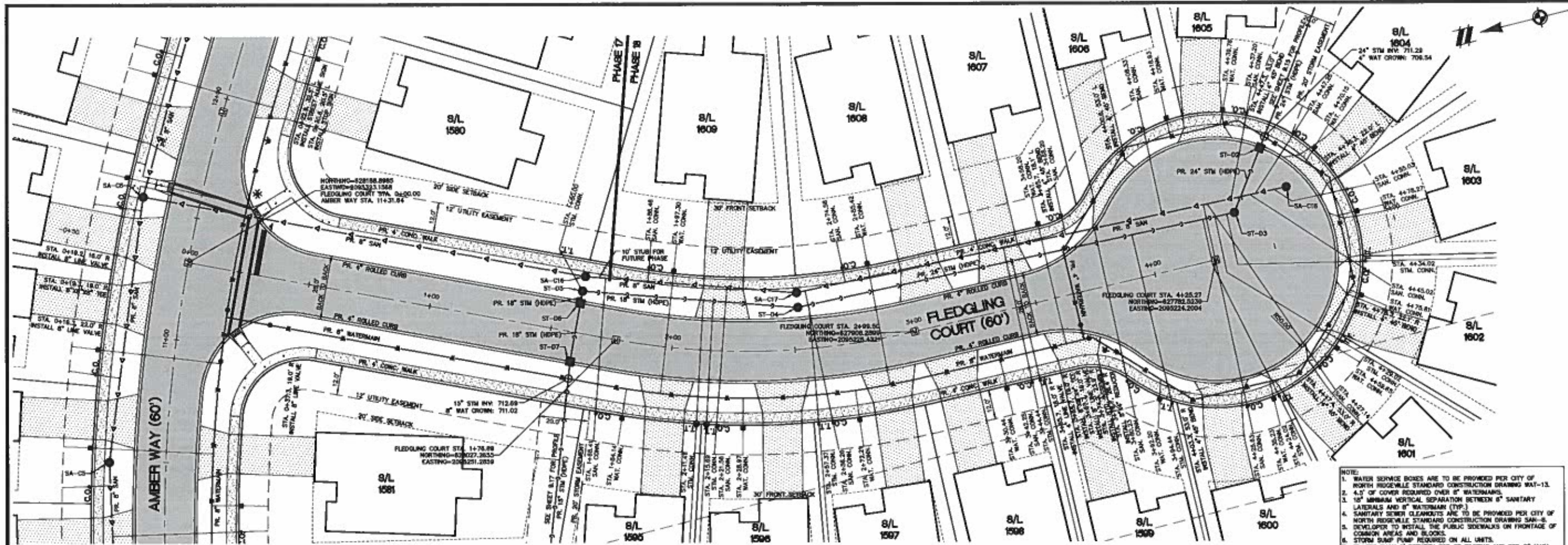


INDEPENDENCE BOULEVARD  
VERT: 1"=5'  
HORIZ: 1"=20'

• C.O. - SANITARY SEWER CLEANOUT  
■ - WATER SERVICE BOX

- NOTE: 1. WATER SERVICE BOXES ARE TO BE PROVIDED PER CITY OF NORTH RIDGEVILLE STANDARD CONSTRUCTION DRAWING WAT-13. 2. 4.5' OF COVER REQUIRED OVER 8" WATERMANS. 3. 18" MINIMUM VERTICAL SEPARATION BETWEEN 6" SANITARY LATERALS AND 8" WATERMANS (TYP.). 4. SANITARY SEWER CLEANOUTS ARE TO BE PROVIDED PER CITY OF NORTH RIDGEVILLE STANDARD CONSTRUCTION DRAWING SAN-3. 5. DEVELOPER TO INSTALL THE PUBLIC SIDEWALKS ON FRONTAGE OF COMMON AREAS AND BLOCKS. 6. STORM SUMP PUMP REQUIRED ON ALL UNITS. 7. IF LESS THAN 2' BETWEEN TOP OF FOOTING AND TOP OF MAIN, GRINDER PUMP IS REQUIRED. 8. UTILIZE A-LOK MANHOLE TO PIPE CONNECTIONS. 9. PAVEMENT JOINTS TO HAVE A MAXIMUM SPACING OF 15' SEE DETAIL PAN-4 FOR JOINT REQUIREMENTS. 10. EXPANSION JOINTS TO BE INSTALLED BETWEEN CONCRETE DRIVES AND CURBS DURING DRIVEWAY CONSTRUCTION. 11. SANITARY SEWERS AT A DEPTH OF 15' OR GREATER SHALL BE SR# 24. 12. NO FENCES, SHEDS OR OTHER APPURTENANCES SHALL BE CONSTRUCTED IN THE 20' WIDE STORM SEWER EASEMENTS.

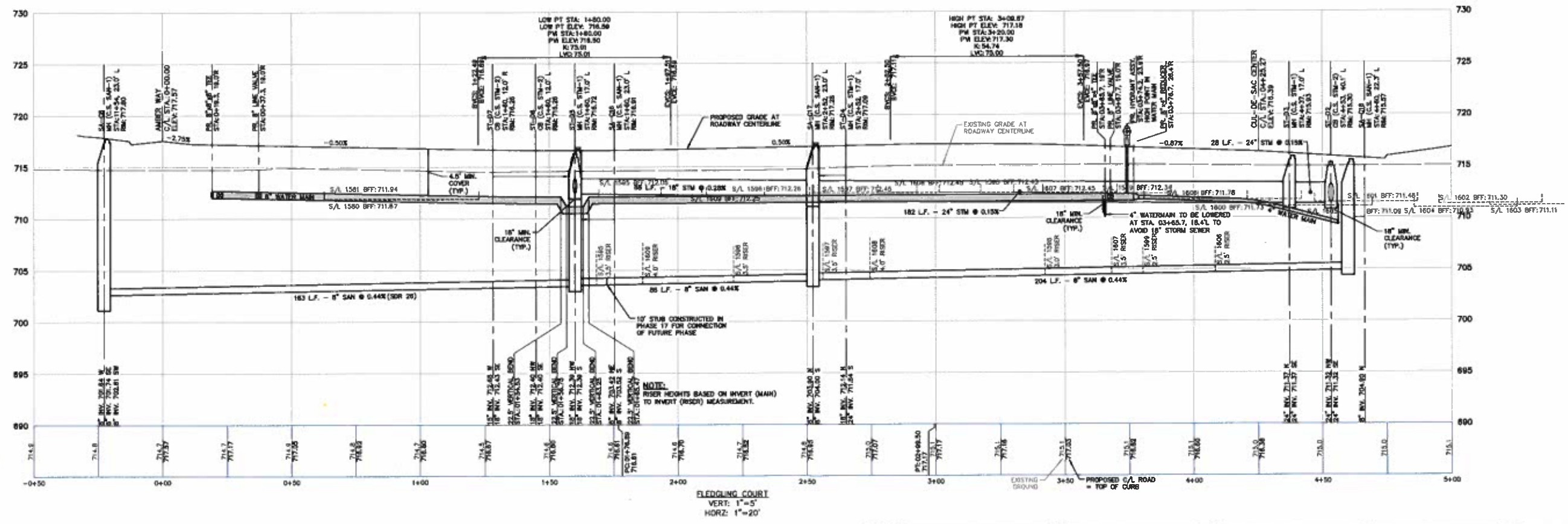
NOTE: RISER HEIGHTS BASED ON INVERT (MARK) TO INVERT (RISE) MEASUREMENT.



PLAN - FLEDGLING COURT  
SCALE: 1"=20'

- T.T. - STORM SEWER CLEANOUT
- C.O. - SANITARY SEWER CLEANOUT
- - WATER SERVICE BOX

- NOTE:
1. WATER SERVICE BOXES ARE TO BE PROVIDED PER CITY OF NORTH RIDGEVILLE STANDARD CONSTRUCTION DRAWING WAT-13.
  2. 4.0' OF COVER REQUIRED OVER 8" WATERMANS.
  3. 15" MINIMUM VERTICAL SEPARATION BETWEEN 8" SANITARY LATERALS AND 8" WATERMANS (TYP).
  4. SANITARY SEWER CLEANOUTS ARE TO BE PROVIDED PER CITY OF NORTH RIDGEVILLE STANDARD CONSTRUCTION DRAWING SAN-6. DEVELOPER TO INSTALL THE PUBLIC SIDEWALKS ON FRONTAGE OF COMMON AREAS AND BLOCKS.
  5. STORM DUMP PUMP REQUIRED ON ALL UNITS.
  6. IF LESS THAN 2' BETWEEN TOP OF FOOTING AND TOP OF MARK, GROUND PUMP IS REQUIRED.
  7. UTILIZE A-LOK MANHOLE TO PIPE CONNECTIONS.
  8. PAYMENT JOINTS TO HAVE A MAXIMUM SPACING OF 15' SEE DETAIL PAW-4 FOR JOINT REQUIREMENTS.
  9. EXPANSION JOINTS TO BE INSTALLED BETWEEN CONCRETE DRIVES AND CURBS DURING DRIVEWAY CONSTRUCTION.
  10. SANITARY SEWERS AT A DEPTH OF 15' OR GREATER SHALL BE SER 28.
  11. NO FENCES, SHEDS OR OTHER APPURTENANCES SHALL BE CONSTRUCTED IN THE 20' WIDE STORM SEWER EASEMENT.



FLEDGLING COURT  
VERT: 1"=5'  
HORIZ: 1"=20'

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CLIENT	K. HOWANIAN HOMES LLC MEADOW LAKES SUBDIVISION #18 SANITARY CONSTRUCTION PLANS									
DATE	JANUARY 11, 2019									
REVISIONS	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>NO.</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> <tr> <td>1</td> <td>APR 15, 2019</td> <td>REPLACEMENT NO. 2</td> </tr> </table>				NO.	DATE	DESCRIPTION	1	APR 15, 2019	REPLACEMENT NO. 2
NO.	DATE	DESCRIPTION								
1	APR 15, 2019	REPLACEMENT NO. 2								
SCALE	1" = 20 FEET									
DRAWN	TDR									
CHECKED	DH									
BOOK	N/A									
JOB NO.	18002341									
SHEET NO.	9.13									

FLEDGLING COURT PLAN & PROFILE  
STA. 0+50 TO STA. 5+00

CAD FILE: 18002341-0813.PLT (FLEDGLING COURT) - PH 18.026



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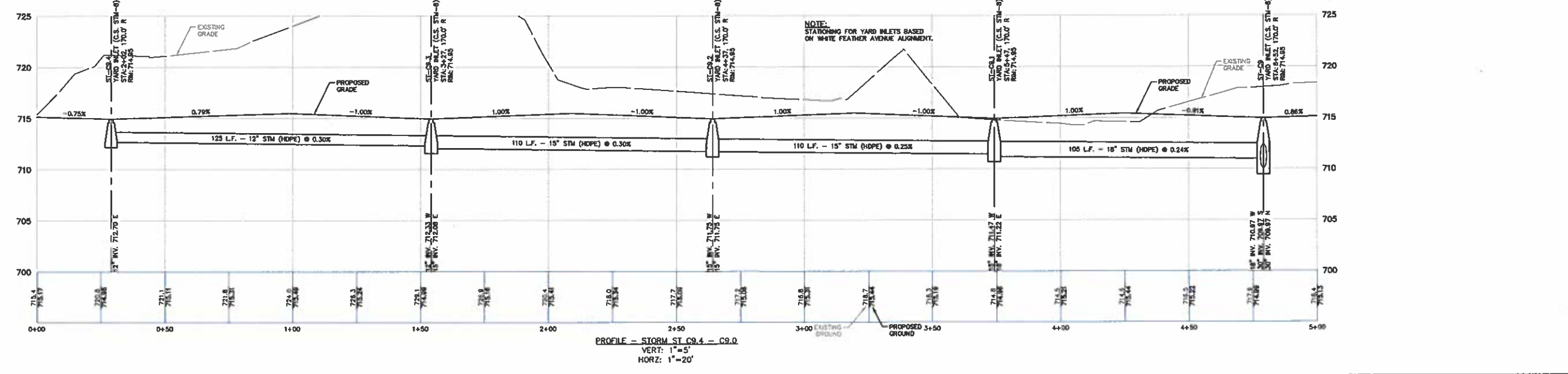
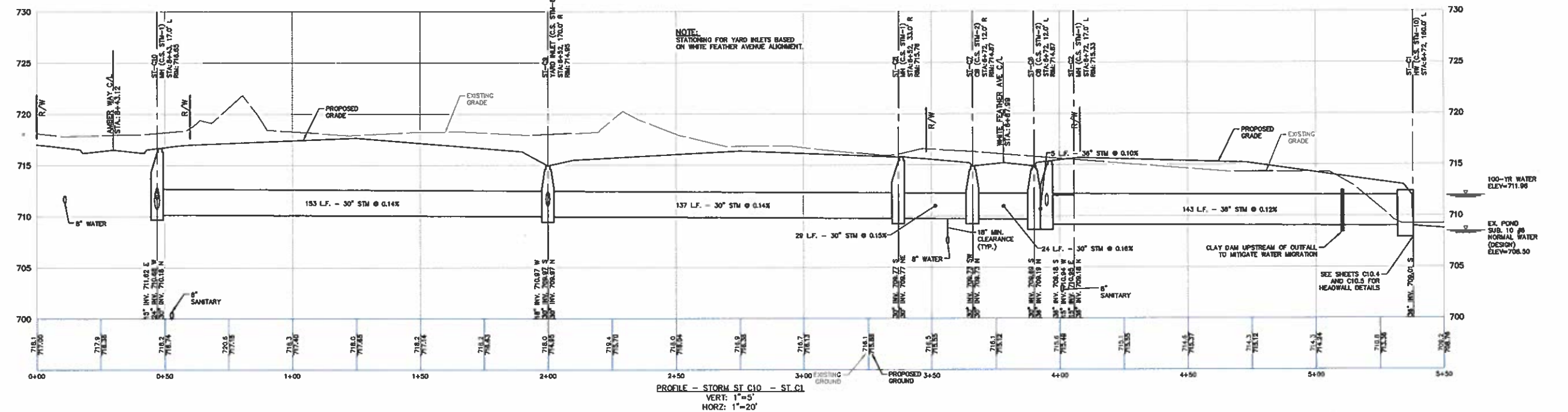
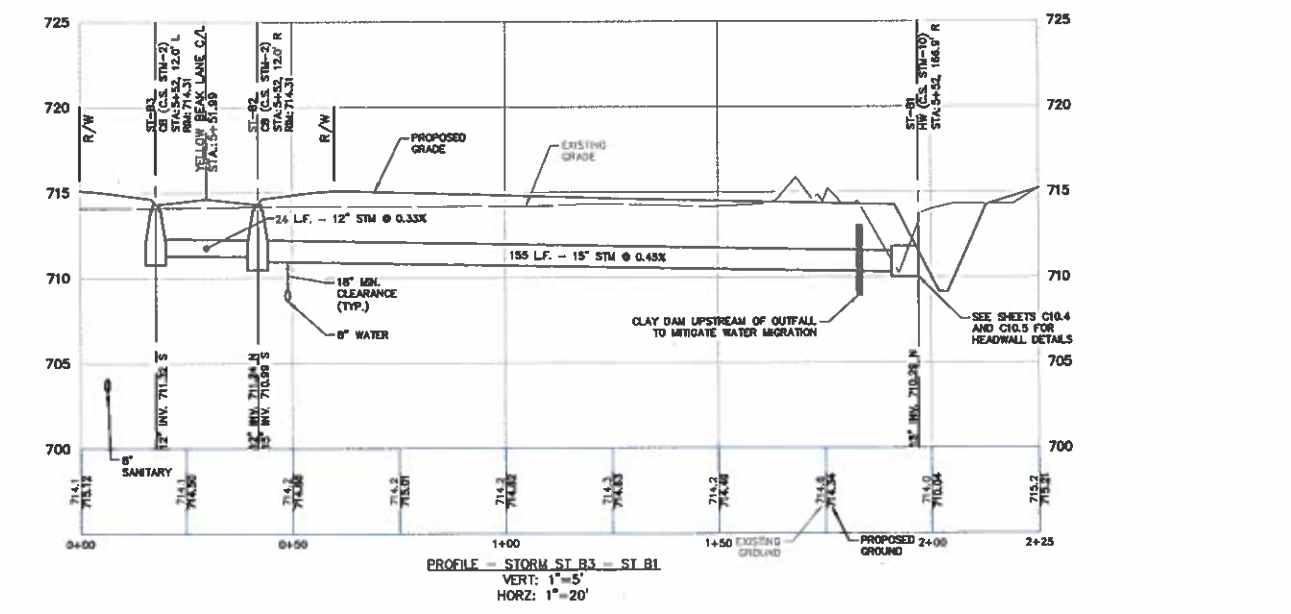
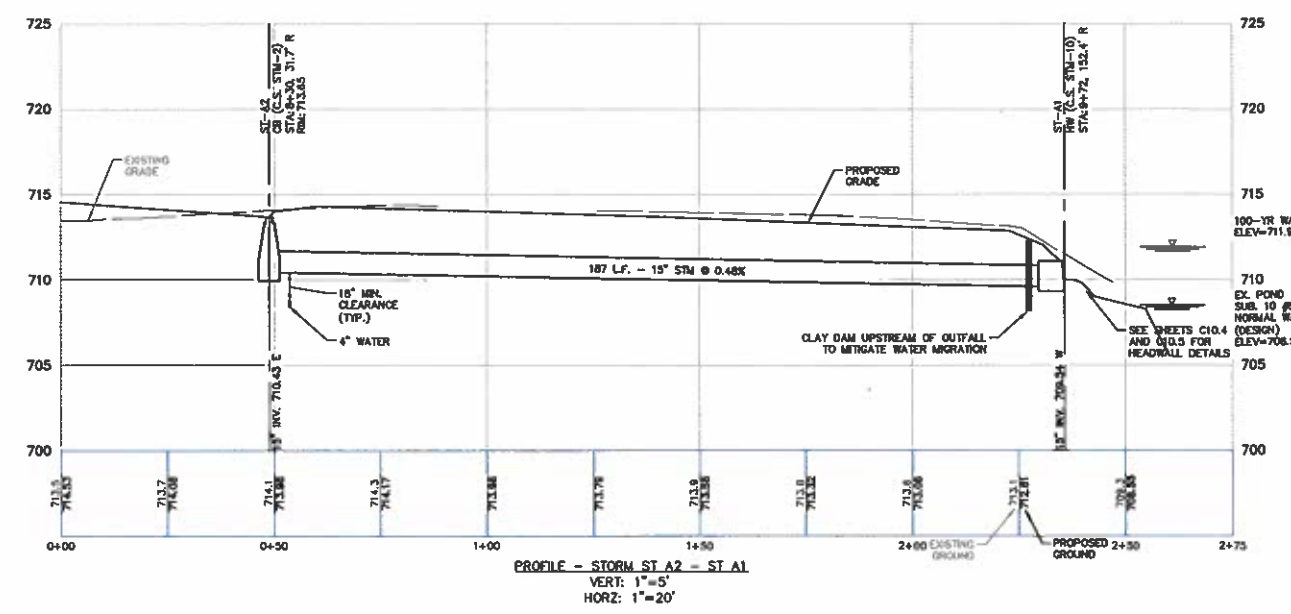
SECTION	EAST
TOWN	CITY OF NORTH RIDGEVILLE
	LORAIN COUNTY, OHIO

CLIENT: K. HOWANIAN HOMES LLC  
 MEADOW LAKES SUBDIVISION #18  
 SANITARY CONSTRUCTION PLANS  
 AUXILIARY STORM PROFILES

DATE: JANUARY 11, 2019

DR.	TDR	CH.	DH
P.M.	UH		
BOOK	N/A		
JOB	18002341		
SHEET NO.	9/14		

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 SCALE 0 10 20  
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MEADOW LAKES SUBDIVISION #18  
SANITARY CONSTRUCTION PLANS  
AUXILIARY STORM PROFILES

DATE  
JANUARY 11, 2019

SCALE  
1" = 20 FEET

DR. TDR  
P.M. DH

BOOK N/A

JOB 18002341

SHEET NO. 9/15

REVISIONS

SCALE 0 10 20

1" = 20 FEET

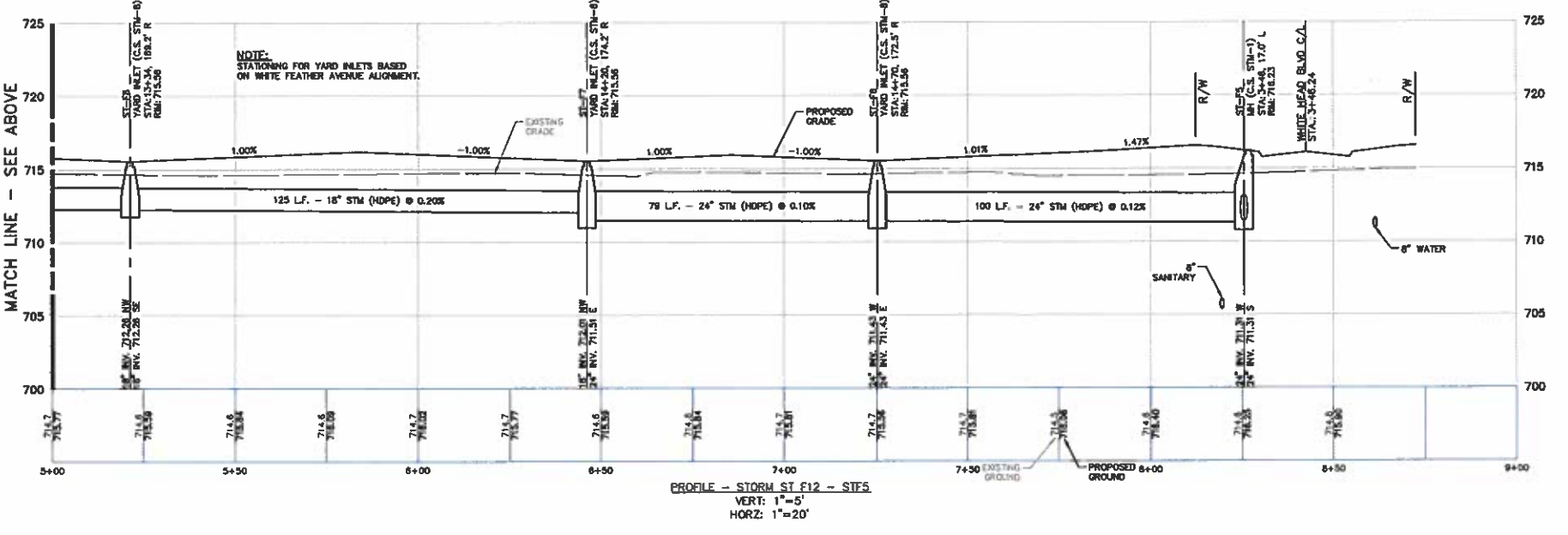
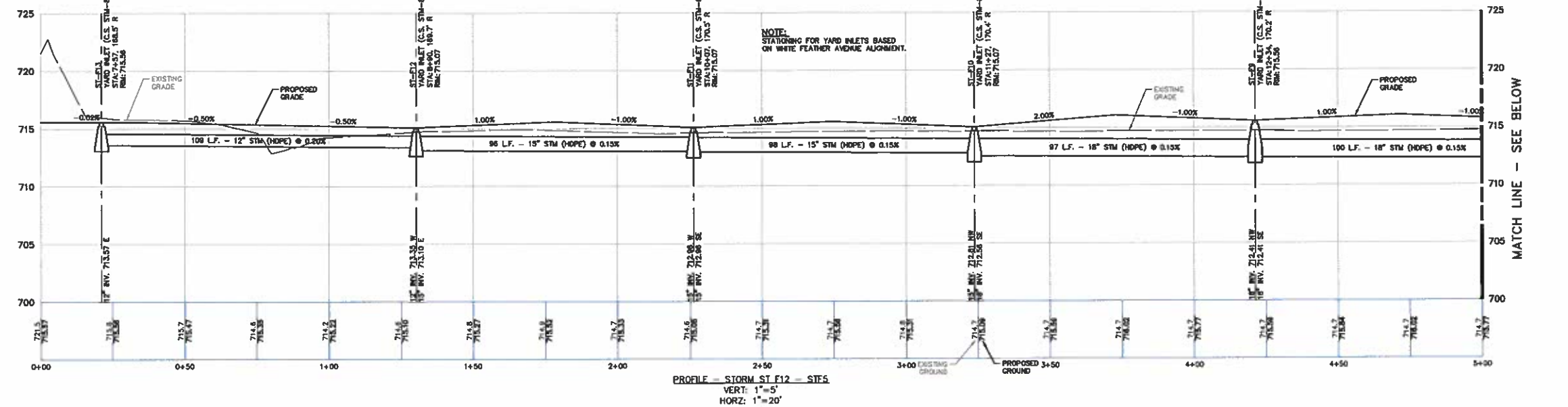
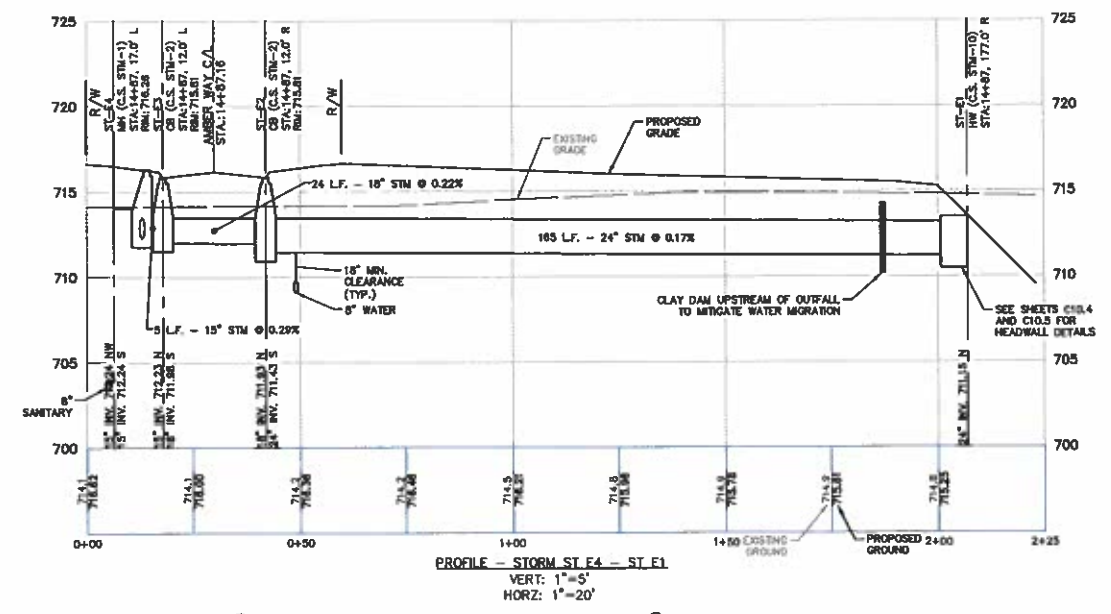
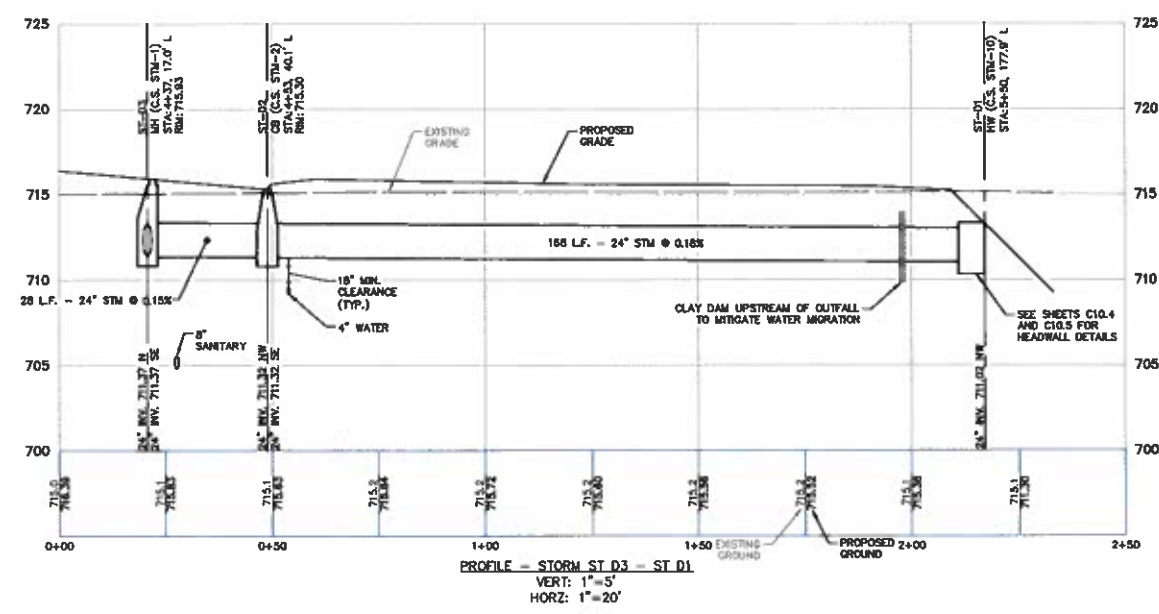
DR. TDR CH. DH

P.M. DH

BOOK N/A

JOB 18002341

SHEET NO. 9/15



DATE PLOTTED: 1/11/2019 10:45:00 AM; PLOTTER: HP DesignJet 2400; PLOT SCALE: 1/8\"/>

CADD FILE: 18002341-08.15 PP (A30) - PP (A30)



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EX. POND SUB. TO 10' NORMAL WATER ELEV=708.50

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SECTION  
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LORAIN COUNTY, OHIO

K. HOVNIANIAN HOMES LLC  
MEADOW LAKES SUBDIVISION #18  
SANITARY CONSTRUCTION PLANS  
AUXILIARY STORM PROFILES

DATE: JANUARY 11, 2019

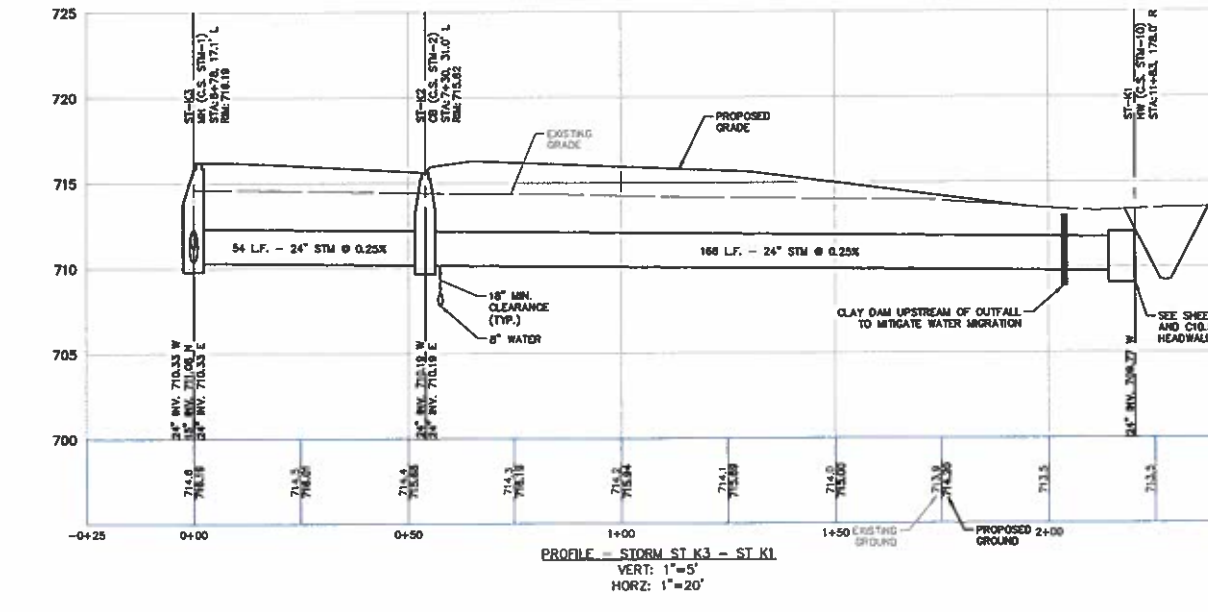
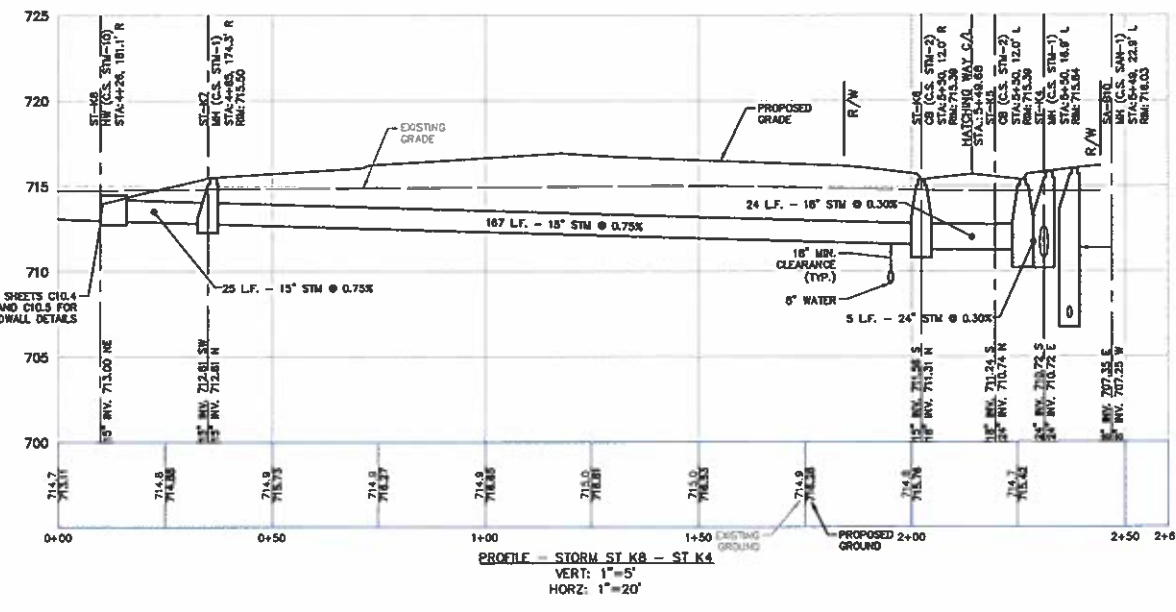
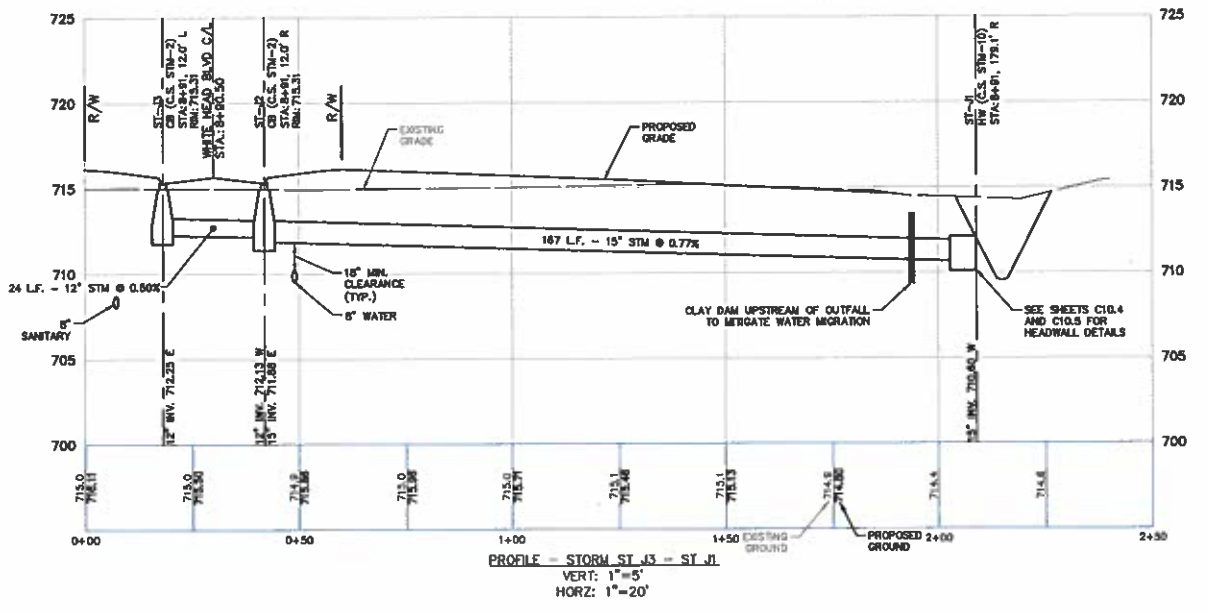
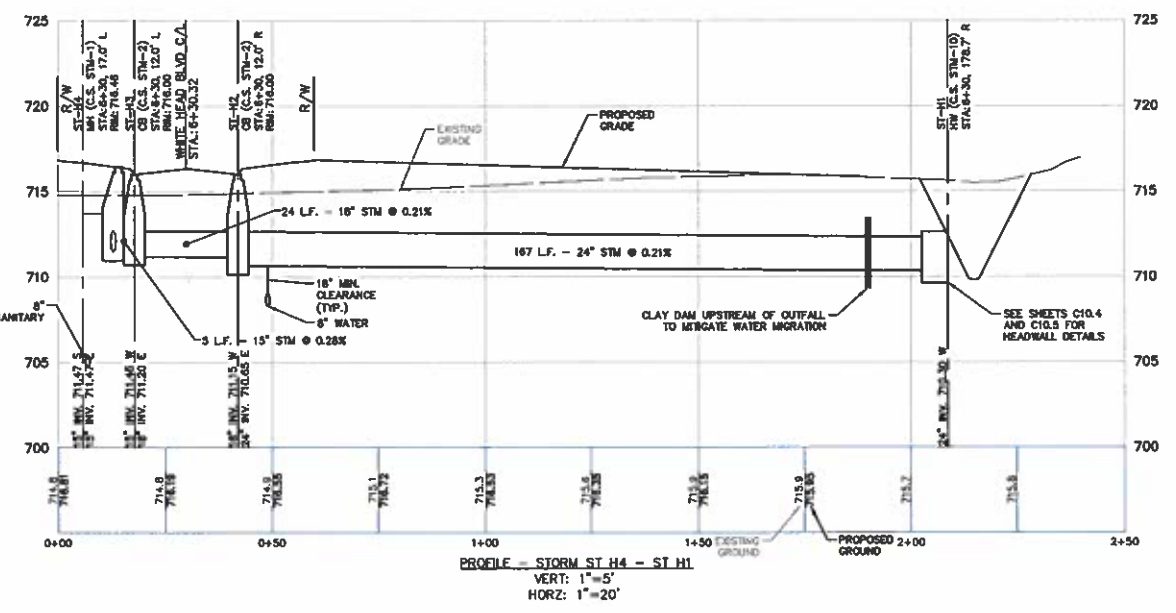
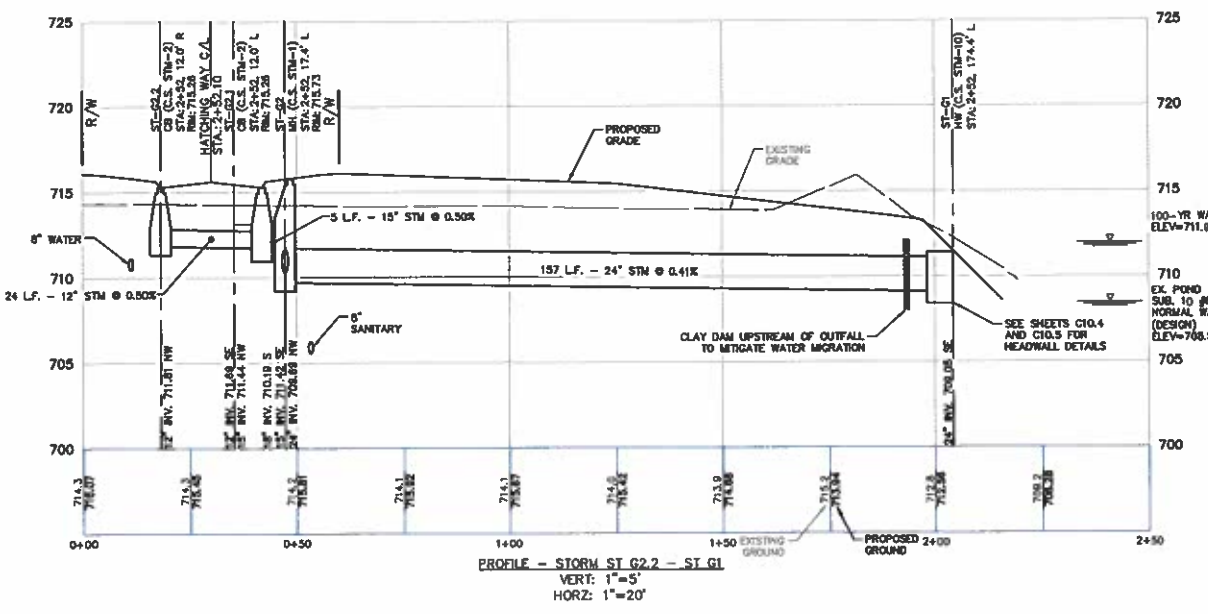
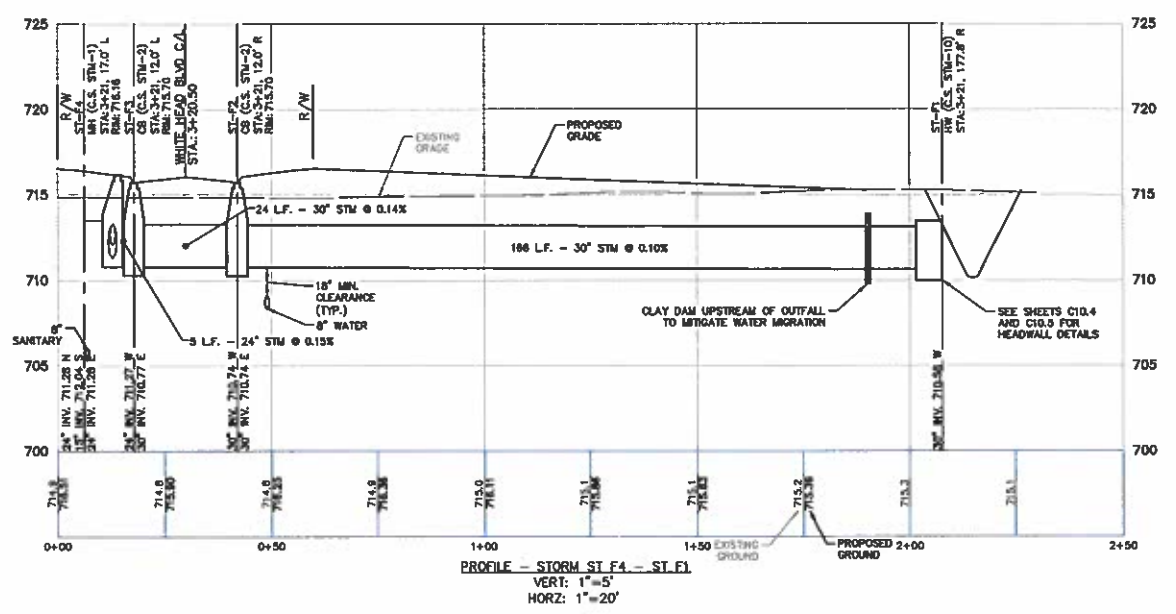
APRIL 13, 2020  
REV. 18002341-03.16

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SCALE 0 10 20  
1" = 20 FEET

DR. TDR CH. OH  
P.M. OH  
BOOK N/A  
JOB 18002341  
SHEET NO. 9/16

CAD FILE: 18002341-03.16 PP (AUX) - PH 180290





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LORAIN COUNTY, OHIO

CLIENT  
K. HONNANIAN HOMES LLC  
MEADOW LAKES SUBDIVISION #18  
SANITARY CONSTRUCTION PLANS  
AUXILIARY STORM PROFILES

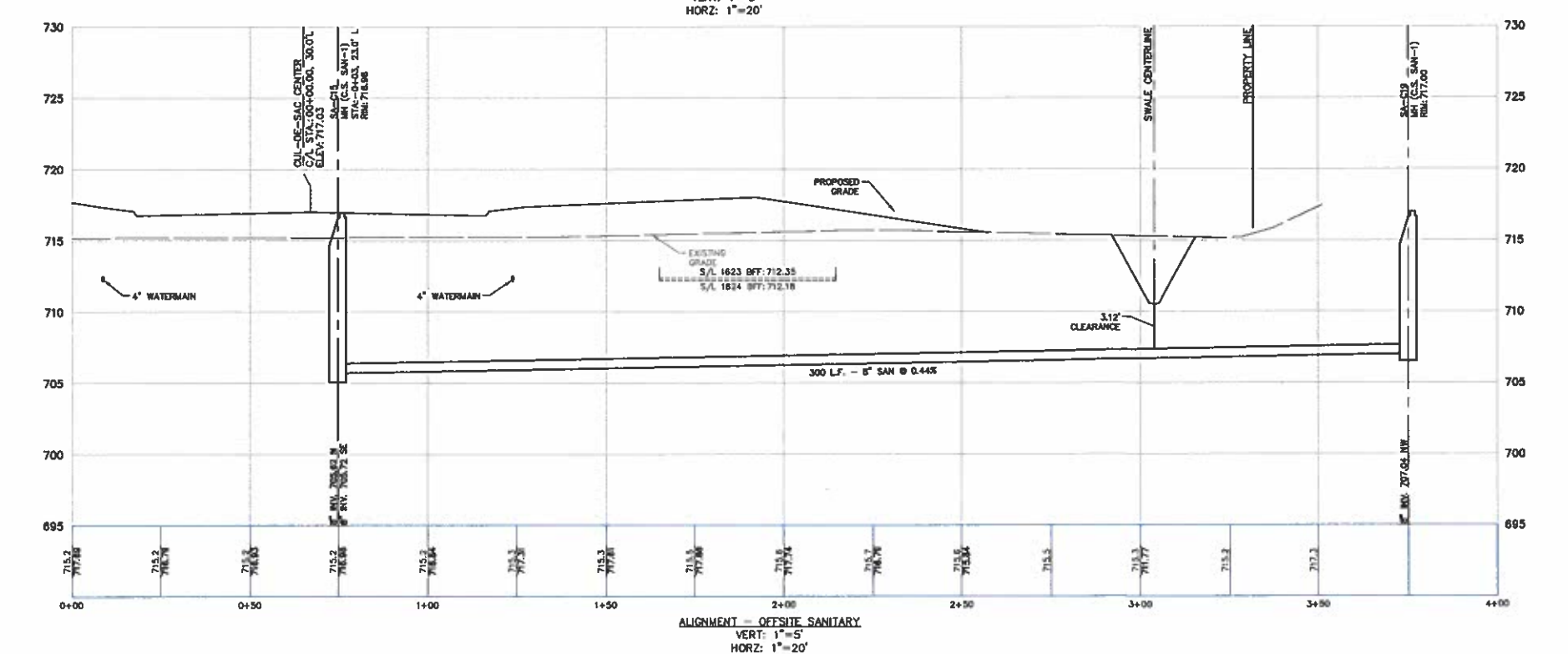
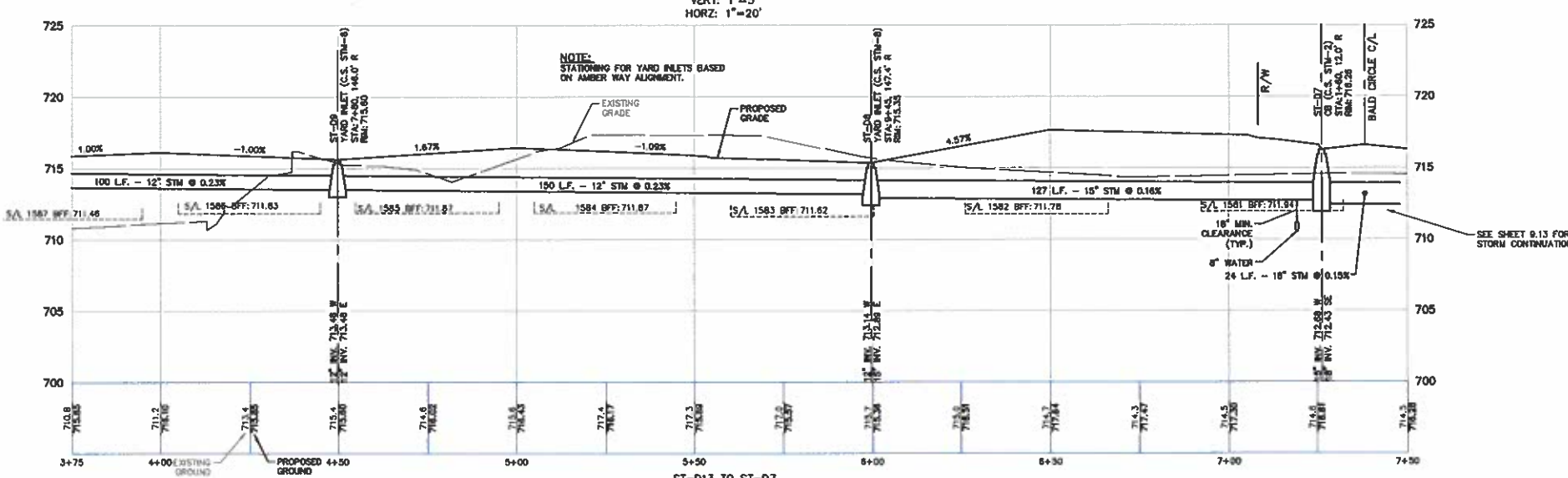
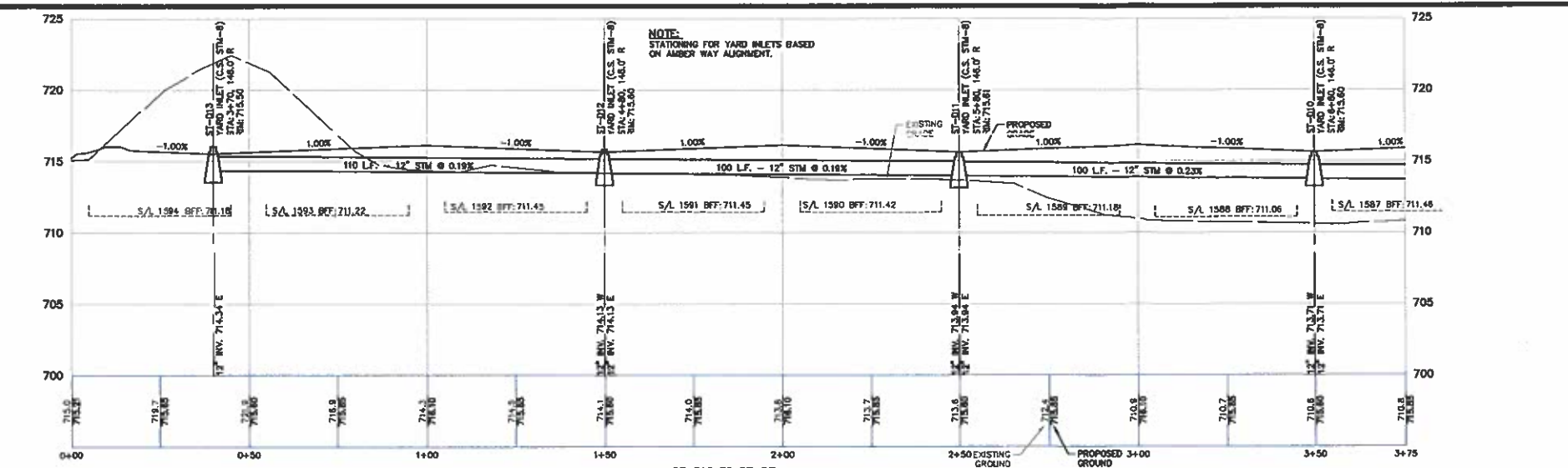
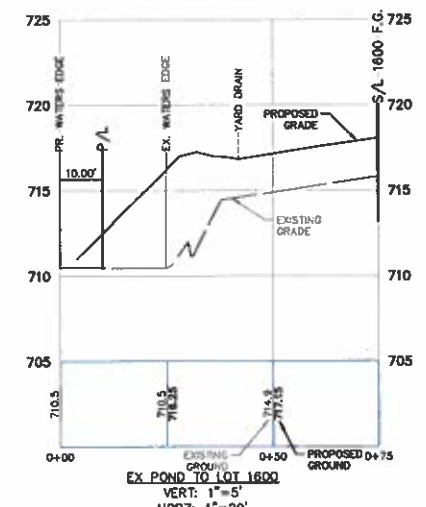
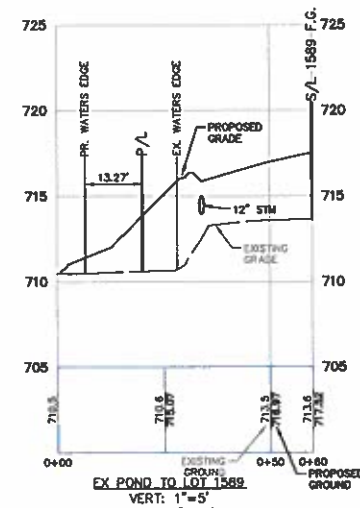
DATE  
JANUARY 11, 2019

DATE  
APRIL 11, 2019  
SHEET NO. 9

Table with 2 columns: REVISIONS, SCALE. Includes scale bar for 1" = 20 FEET.

Table with 2 columns: DR., P.M. DH., BOOK, JOB, SHEET NO. Includes job number 18002341 and sheet number 9/17.

CAD FILE: 18002341-08.17 PP (AUX) - RW 18.036



Vertical text on the left margin: 18002341-08.17 PP (AUX) - RW 18.036

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LORAIN COUNTY, OHIO

CLIENT K. HOWANIAN HOMES LLC  
MEADOW LAKES SUBDIVISION #18  
SANITARY CONSTRUCTION PLANS  
TYPICAL STORM DETAILS

DATE JANUARY 11, 2019  
APP. 13, 2009  
CDA NUMBER NO. 2

REVISIONS

DR. TDR | CH. DH  
P.N. DH  
BOOK N/A  
JOB 18002341  
SHEET NO. 110

**NOTES**

CASTINGS SHALL MINIMALLY MEET THE REQUIREMENTS OF 604-711.12, A.I.T.A. A-48, CLASS 36 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 OIL TAR PITCH PAINT, AT THE SITE.

TOTAL MINIMUM ASSEMBLY WEIGHT = 800 LBS. SUBJECT TO THE ABOVE. THE FOLLOWING OR APPROVED EQUAL CASTINGS ARE ACCEPTED: NEEDHAM NO. R-3001-TR OR 3001-TL OR EAST JORDAN 7485 W/ M1, M2 OR M4 GRATE, WHICHEVER IS APPROPRIATE.

BEARING AREAS OF FRAME AND GRATE SHALL BE 80 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 BE SEAT IN ITS FRAME WITHOUT ROCKING. EACH FRAME AND GRATE SHALL BE FITTED, MATCHED AND MARKED BEFORE DELIVERY TO THE PROJECT.

DOVELS & FOUR (4) 1/2" DIA. DOVELS ARE REQUIRED FOR CONCRETE PAVEMENT OR OUTLET BLOCKOUT.

BRICK OR CONCRETE BLOCKS, SIDE WALLS, WHEN USED IN LIEU OF PRECAST CONCRETE, SHALL BE BUILT IN 8-INCHES NOMINAL THICKNESS.

PRECAST CONSTRUCTION IS PERMITTED, EXCEPT FOR THE BLOCKOUT PAVEMENT AND CONCRETE SHALL MEET THE REQUIREMENTS OF 703.13 WITH 80 PERCENT BLENDED BLENDED PORTLAND CEMENT IN THE HARDENED CONCRETE. PRECAST WALLS SHALL HAVE A MINIMUM THICKNESS OF SIX (6) INCHES AND REINFORCING SHALL BE SUFFICIENT TO PREVENT SHRINK 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 9 FEET OR LESS AND NO. 4 BARS SHALL BE USED WHEN THE WALL HEIGHT EXCEEDS 9 FEET. SPOT DRAMMERS SHALL BE REQUIRED IF PRECAST CONSTRUCTION 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 LINE WITH THE LIMITS OF THE BLOCKOUT. EXCEPT AS SPECIFIED ABOVE, BLOCKOUTS SHALL BE LOCATED NO CLOSER THAN FIVE (5) FEET FROM A TRANSVERSE PAVEMENT JOINT. WHERE THE SPECIFIED CATCH BASIN WORK REQUIRES THE CONSTRUCTION OF A TRANSVERSE PAVEMENT JOINT, THE BLOCKOUTS SHALL BE LOCATED NO CLOSER THAN FIVE (5) FEET FROM A TRANSVERSE PAVEMENT JOINT. THE DOVELS SHALL BE PLACED IN ACCORDANCE WITH THE SECTION-TYPE 'E' JOINT. PER O.D.T. CONSTRUCTION DRAWING SP-2.8.C, SECTION-TYPE 'E' JOINT WHERE BLOCKOUT JOINT IS AT AN EXISTING CONSTRUCTION OR EXISTING JOINT LOCATION A CLASS 'C' CONCRETE ARCH, THE SIZE OF THE TWO (2) FOOT OUTLET BLOCKOUT, SHALL BE CAST IN PLACE IN FLEXIBLE PAVEMENT AND NO DOVELS ARE REQUIRED.

**Notes:**

RESIDENTIAL PAVEMENT T = 2" (1 1/2" Long Dia. Dovel)  
INDUSTRIAL PAVEMENT T = 2" (1 1/2" x 18" Long Dia. Dovel)

Backfill for all structures within the limits of the pavement shall be CDOT Item 304 Aggregate Base or Low Strength Mortar Backfill, TYPE 2 per current O.D.T. Construction and Material Specifications, except as modified herein.

The use of Froude Sand or Silt is strictly prohibited.

Curb Drains installed shall be sloped out 1" past the limits of excavation with solid pipe.

A Sump Catch Basin is required at least 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.

SCALE: NOT TO SCALE DATE: 10/01/08 DRAWN BY: JAB/TER STM-2

**NOTES**

No. 1 headwall, where required, will be provided for non-sloped culverts having a diameter or rise of 30" or less. Concrete shall be class 'C'.

Reinforcing steel bars shall be 5/8" round.

Dimension and quantities are shown for circular sections only. It will be necessary to determine dimensions for the No. 1 headwall required for other pipe shapes in accordance with the equations listed on this drawing.

Full height headwalls are required for all pipes.

Chamfer all exposed corners 3/4 of an inch.

Foundation: Where the soil borings indicate a bearing capacity of less than 2000 pounds per square foot, it will be necessary to increase the width of the base.

For headwall outer protection, see STM-13.

All cast in place headwalls shall have a cement wash.

**TABLE 1: DIMENSIONS AND QUANTITIES ONE HEADWALL**

DIA.	H	L	CONCRETE CU. YDS.	REINFORCING STEEL LBS.
18"	8'-2"	7'-0"	1.7	41
18"	8'-2"	8'-4"	2.2	57
21"	8'-2"	9'-2"	2.8	62
24"	8'-2"	11'-0"	3.3	69
30"	8'-2"	12'-8"	4.7	92
36"	7'-0"	16'-4"	6.5	105

**TABLE 2: FORMULAS**

L = CIRCULAR SECTIONS =  $0.0 + 4L$   
 L = ELLIPTICAL OR PIPE ARCH =  $4R + 4L + S$   
 H = CIRCULAR SECTIONS =  $D + 1 + 4L$   
 H = ELLIPTICAL OR PIPE ARCH =  $R + 1 + 4L$

D = DIAMETER OF PIPE  
 R = RISE OF PIPE  
 S = SPAN OF PIPE  
 L = LENGTH OF HEADWALL  
 H = HEIGHT OF HEADWALL

SCALE: NOT TO SCALE DATE: 10/01/08 DRAWN BY: JAB/TER STM-10

**NOTES**

Sections of the precast manhole shall be cast and assembled with either all tongue or all groove ends top. LR holes may be provided in each section for handling.

TOP AND TRANSITION: For reduced sections may be either eccentric cone, or flat top.

BASES: For manholes are shown with monolithic floor and rear which may be cast in one or two operations. A penetrable alternate is to cast each end of the base and seal 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 bells and outside are to be finished.

OPENINGS IN RISE SECTIONS: For 18" and smaller inlet pipe cast per specifications.

MATERIALS: For bases and other precast sections, including reinforcement, not specified herein, shall comply with the specifications.

LANDING PLATEFORMS: as shown on the Landing Details shall be installed in manholes that are over 30 feet deep to the invert with maximum vertical spacing of 30 feet.

PRECAST MANHOLES shall conform to the requirements of ASTM C-778. Concrete shall be 4000# P.S.I.

SEAL: RR holes with approved concrete plugs and bit.

ANCHORS: 3/4" dia. threaded with washers and nut and 1/2" dia. 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 coat tar pitch paint.

**TABLE 3: 48" - 90" BASE FOR PRECAST**

Base L.D.	Min T	Max. Pipe Size
48"	5"	30"
60"	5"	30"
72"	6"	42"
84"	7"	54"
90"	7-1/2"	60"
90"	8"	60"

SCALE: NOT TO SCALE DATE: 10/01/08 DRAWN BY: JAB/TER STM-1

**NOTES**

Backfill for all structures within 5' of the pavement shall be CDOT Item 304 Aggregate Base or Low Strength Mortar Backfill, TYPE 2 per current O.D.T. Construction and Material Specifications, except as modified herein.

The use of Froude Sand or Silt is strictly prohibited.

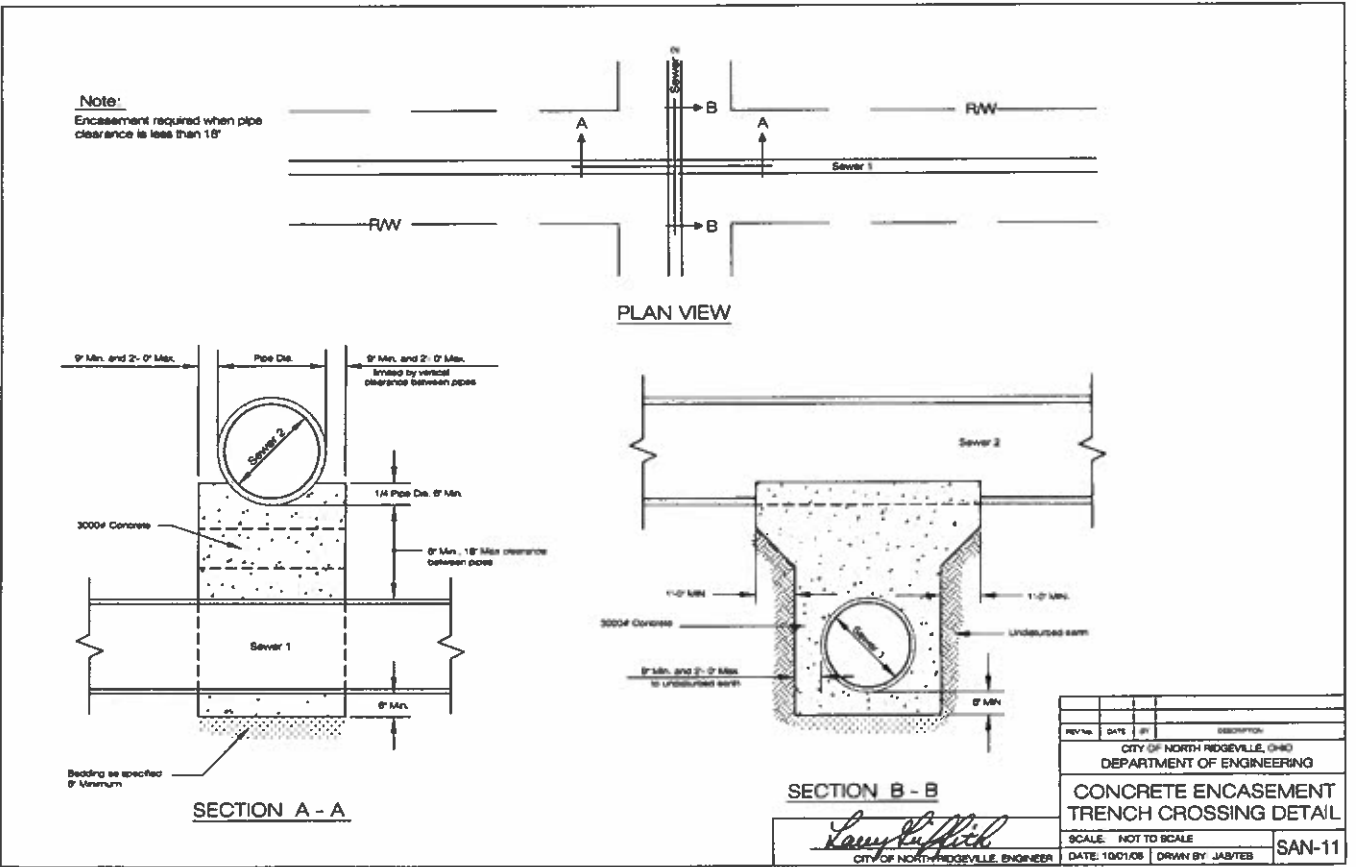
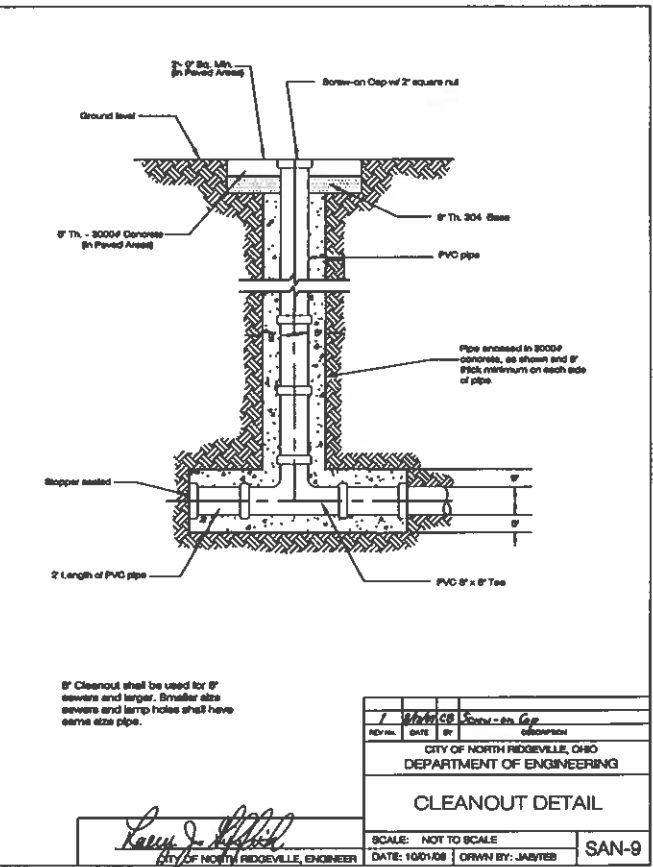
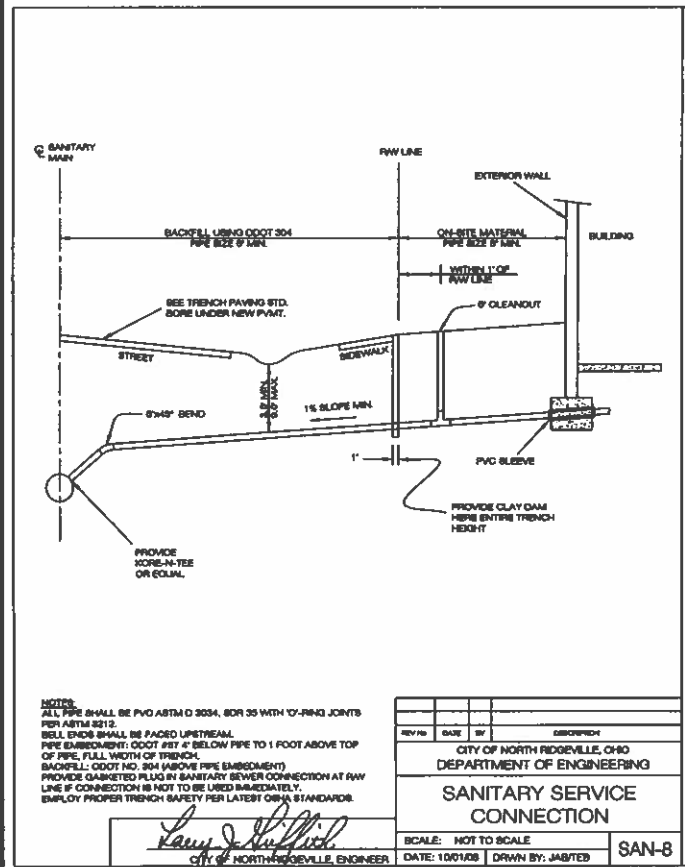
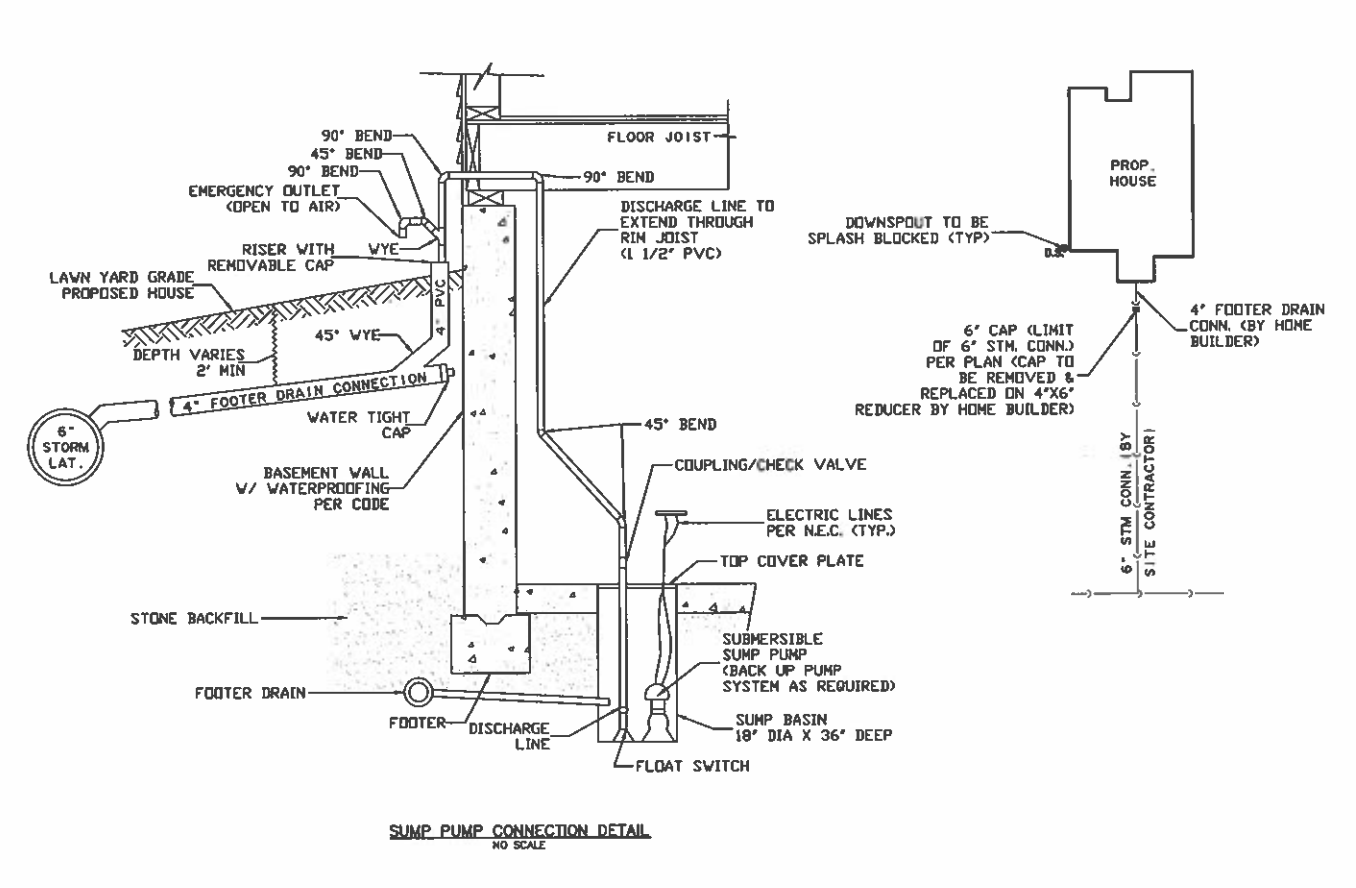
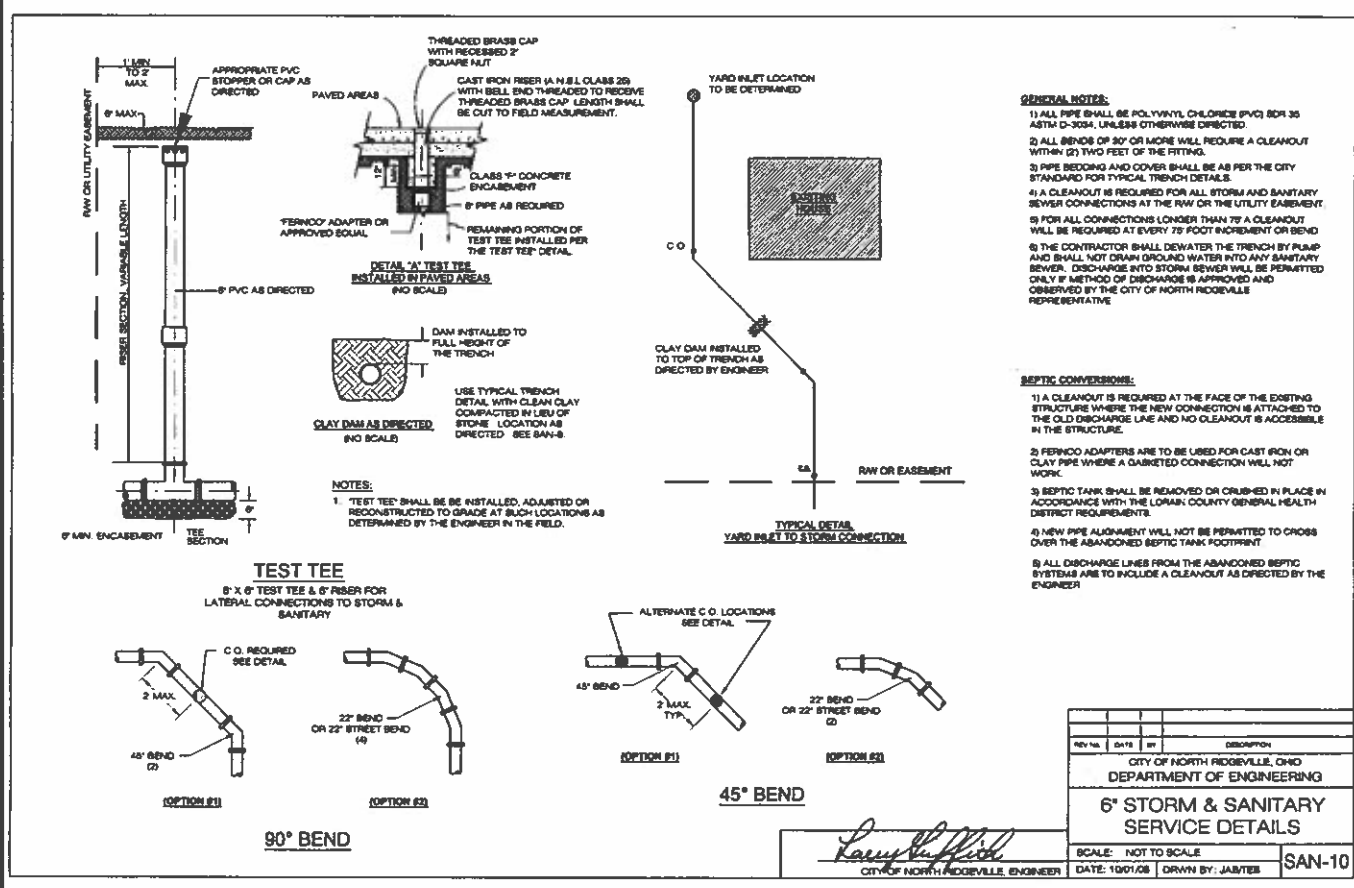
**TABLE 4: CATALOG No.**

3	6	8	10	12	PIPE SIZE
EA1	EA2	EA3	EA4	EA5	12"
EA6	EA7	EA8	EA9	EA10	18"
EA11	EA12	EA13	EA14	EA15	24"

OTHER CASTINGS ACCEPTED UPON APPROVAL OF THE CITY ENGINEER

A INDICATES DOMED OR BEEHIVE GRATE CATALOG No.  
 B INDICATES FLAT GRATE CATALOG No.

SCALE: NOT TO SCALE DATE: 10/01/08 DRAWN BY: JAB/TER STM-8



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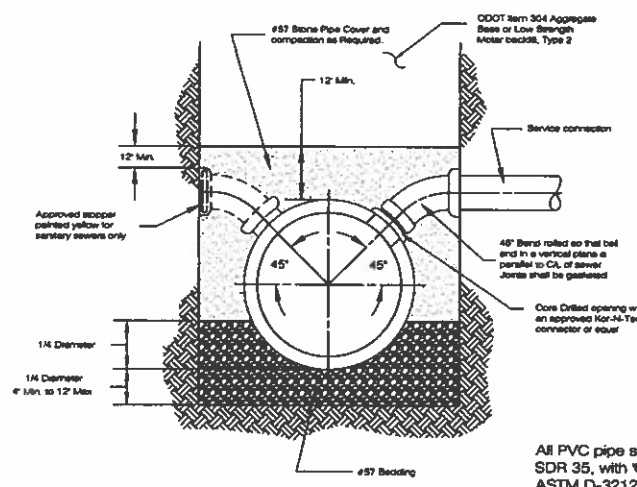
SECTION: NORTH, RANGE: EAST  
 TOWN: CITY OF NORTH RIDGEVILLE  
 CLIENT: K. HOWANIAN HOMES LLC  
 MEADOW LAKES SUBDIVISION #18  
 SANITARY CONSTRUCTION PLANS  
 TYPICAL DETAILS

DATE: JANUARY 11, 2019  
 APRIL 13, 2009  
 023 SANITARY #18

DR. TDR | CH. DH  
 P.M. DH  
 BOOK: N/A  
 JOB: 18002341  
 SHEET NO. 111

CAD FILE: 18002341-110 - DT - 01 - 04 - 18.DWG

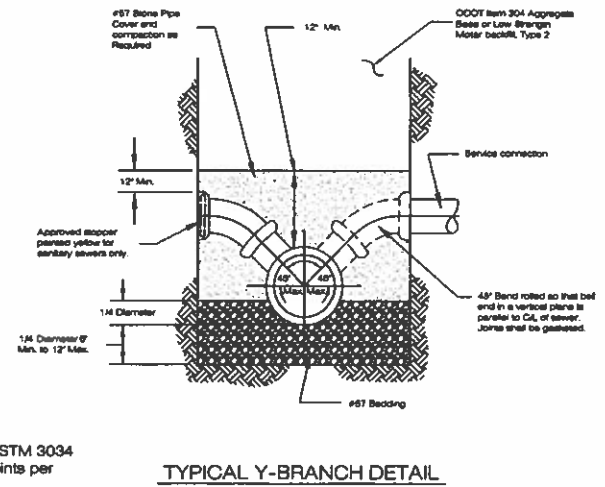




TYPICAL CORE AND TEE DETAIL  
(USE ON EXISTING MAINS)

NOTES: 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.  
Bell ends are to be placed upstream.

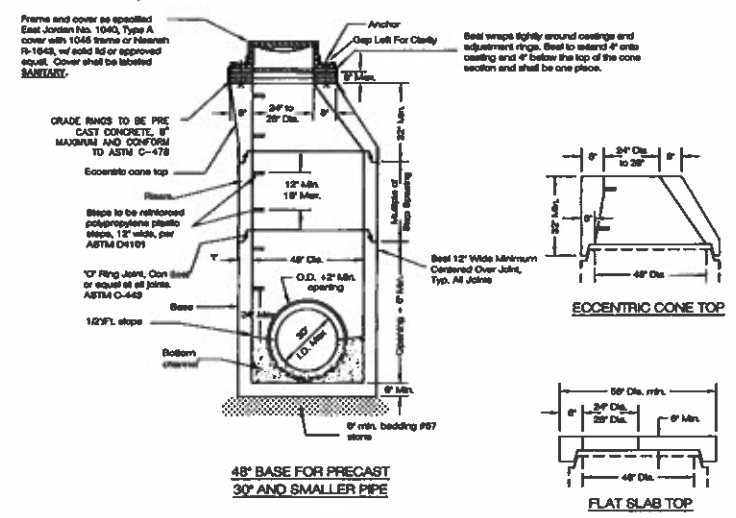
All PVC pipe shall be ASTM 3034 SDR 35, with 'O' Ring joints per ASTM D-3212



TYPICAL Y-BRANCH DETAIL

REV. NO.	DATE	BY	DESCRIPTION

CITY OF NORTH RIDGEVILLE, OHIO  
DEPARTMENT OF ENGINEERING  
**SANITARY SERVICE CONNECTION DETAILS**  
SCALE: NOT TO SCALE  
DATE: 10/01/08 | DRAWN BY: JAB/TEB | SAN-5



Sanitary Manholes

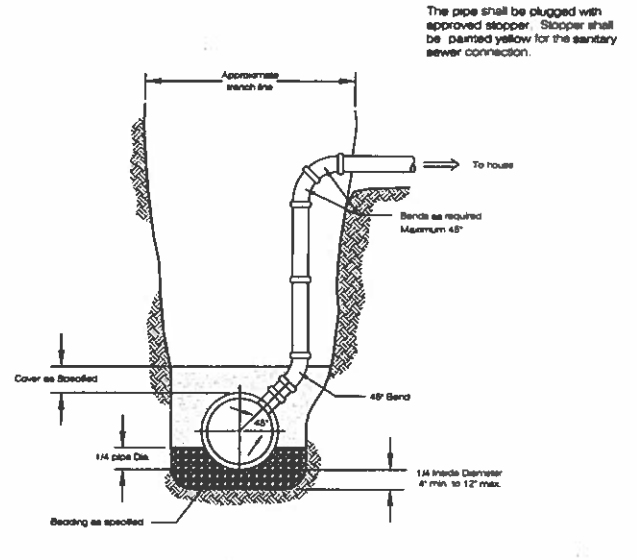
Castings in pavement shall have a solid lid and gasket.  
Manhole Testing: All sanitary manholes shall be vacuum tested per ASTM C 1244.  
Precast collars and/or brigs for height adjustments to manholes must meet ASTM C-22.

NOTES

Sections of the precast manhole shall be cast and assembled with either all long or all groove ends up. Lift holes may be provided in each section for handling.  
TOP AND TRANSITION (or reduced) Sections may be either eccentric cone or flat slab.  
Bases for manholes are shown with monolithic floor and curb which may be cast in one or two operations. A permeable alternate is to cast and apply 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 BASE SECTIONS for 18" and smaller inlet pipes shall be precast. Flexible connectors shall be provided for sanitary and combined sewers.  
JOINT SEAL between precast manhole sections on sewers shall be resilient and flexible gasket joints per ASTM C-443 or latest edition.  
The manhole seal at the top of the manhole (loading, adjustment rings, etc.) shall be a "WATER-TIGHT" type shrinkable seal manufactured by Conuse-CPB or approved equal.  
All other joints shall be sealed with CONSEAL CS100 built sealant manufactured by Concrete Sealants, Inc. or an approved equal.  
A watertight flexible sleeve "WDR-N-SEAL" "PRESS WEDGE" or equal to be provided at all connections between manholes and pipes and shall meet the requirements of ASTM C-923.  
MATERIALS for bases and other precast sections, including reinforcement not specified herein, 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 lowest 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 1/2" dia. Allthread with washers and hex nut (4x4-4). Lead anchor secured into the concrete cone top.  
CASTINGS for manholes shall be cleaned and painted in field with one coat of asphalt varnish or coal tar pitch paint.

REV. NO.	DATE	BY	DESCRIPTION

CITY OF NORTH RIDGEVILLE, OHIO  
DEPARTMENT OF ENGINEERING  
**PRECAST CONCRETE MANHOLE**  
SCALE: NOT TO SCALE  
DATE: 10/01/08 | DRAWN BY: JAB/TEB | SAN-1

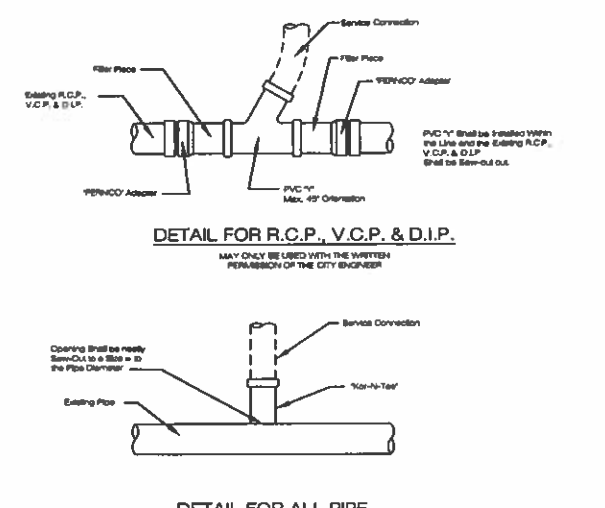


STANDARD RISER DETAIL

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**  
SCALE: NOT TO SCALE  
DATE: 10/01/08 | DRAWN BY: JAB/TEB | SAN-7



PIPE TAPPING DETAIL

REV. NO.	DATE	BY	DESCRIPTION

CITY OF NORTH RIDGEVILLE, OHIO  
DEPARTMENT OF ENGINEERING  
**PIPE TAPPING DETAIL**  
SCALE: NOT TO SCALE  
DATE: 10/01/08 | DRAWN BY: JAB/TEB | SAN-12

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SECTION: EAST  
TOWN: NORTH, RANGE  
CITY OF NORTH RIDGEVILLE  
LORAIN COUNTY, OHIO

CLIENT: K. HOWANIAN HOMES LLC  
MEADOW LAKES SUBDIVISION #1B  
SANITARY CONSTRUCTION PLANS  
TYPICAL DETAILS

DATE: JANUARY 11, 2019  
APRIL 11, 2009  
CDA SUBMITAL NO. 2

REVISIONS

DR. TDR | CH. DH  
P.M. DH  
BOOK: N/A  
JOB: 18002341  
SHEET NO. 112

CAD FILE: 18002341-11.0 - 07 - 04 - 18.DWG

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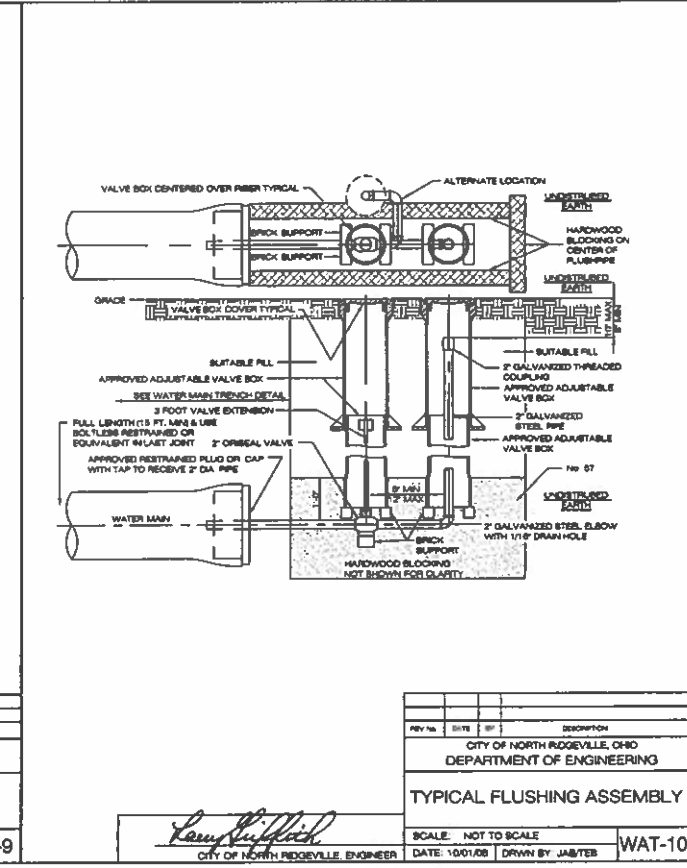
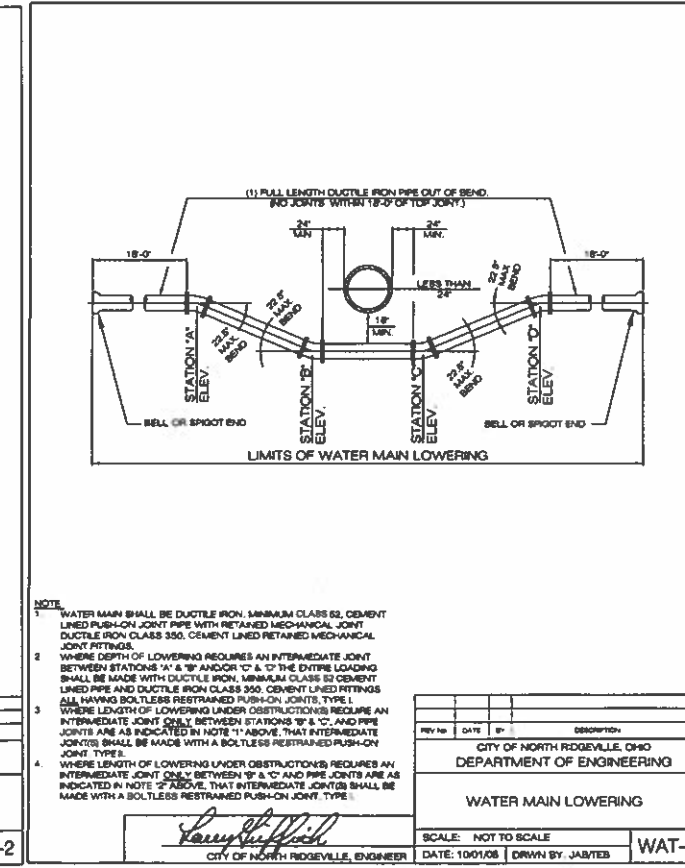
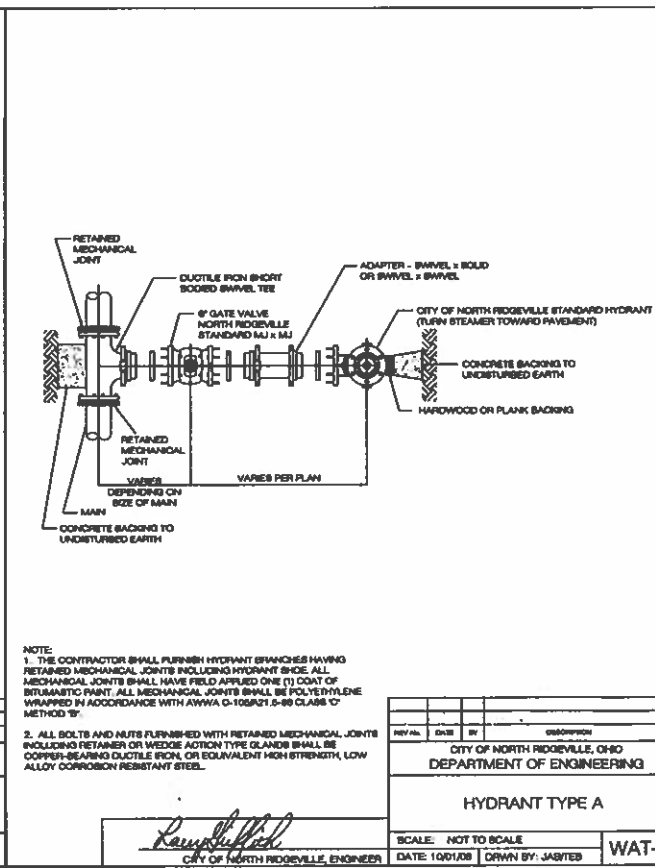
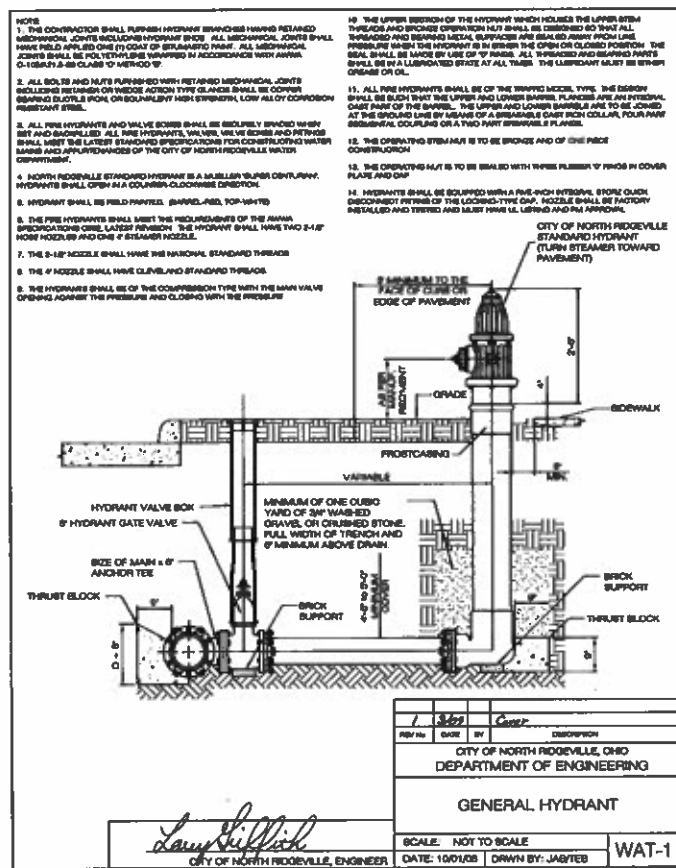
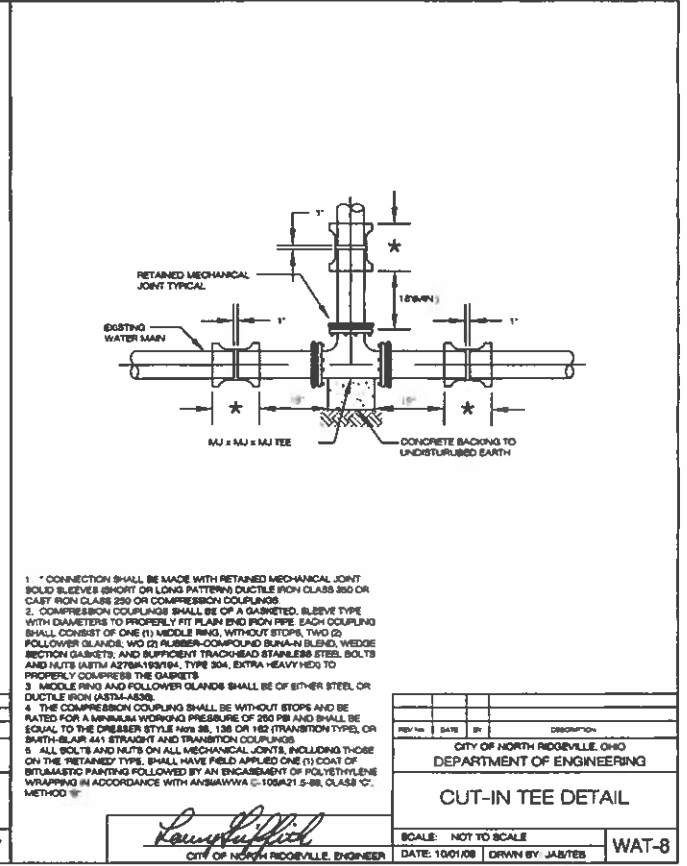
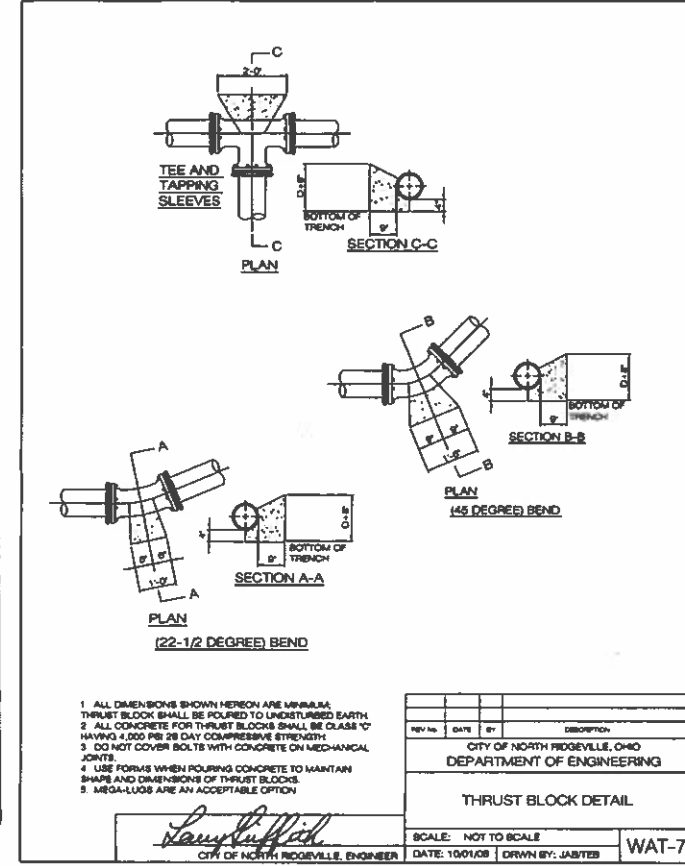
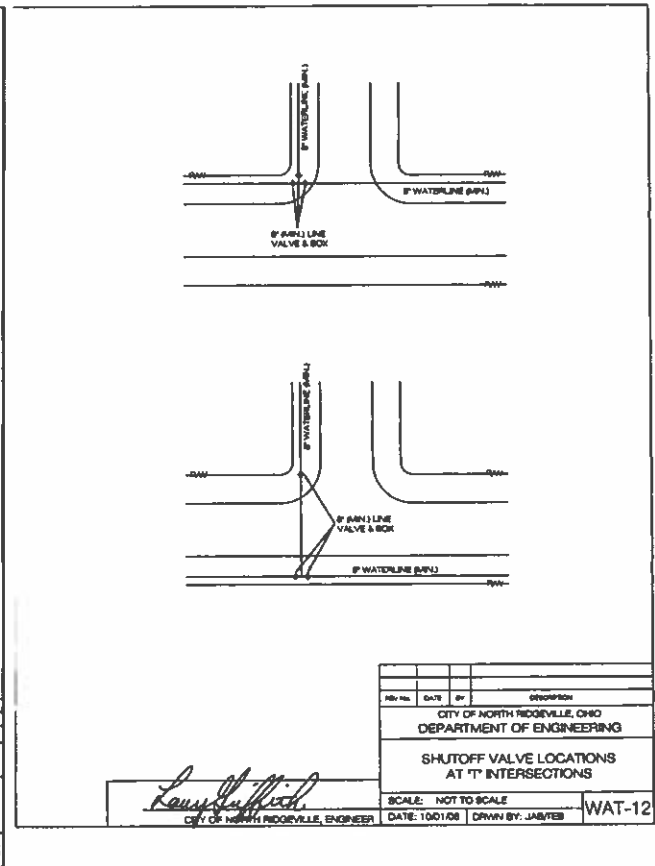
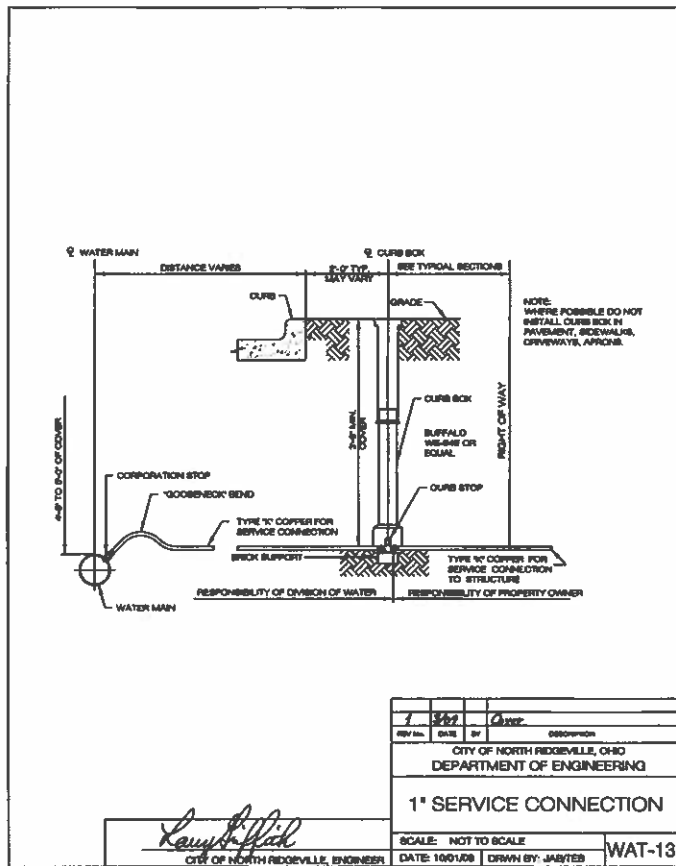
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SECTION  
TOWN NORTH, RANGE EAST  
CITY OF NORTH RIDGEVILLE  
LORAIN COUNTY, OHIO

K. HOWNANIAN HOMES LLC  
MEADOW LAKES SUBDIVISION #18  
SANITARY CONSTRUCTION PLANS  
TYPICAL WATER DETAILS

CLIENT  
DATE: JANUARY 11, 2019  
APR 13, 2020  
02/28/2021, NO. 1

REVISIONS  
DR. TDR CH. DH  
P.M. DH  
BOOK N/A  
JOB 18002341  
SHEET NO. 113



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SECTION EAST TOWN NORTH, RANGE EAST CITY OF NORTH RIDGEVILLE, OHIO LORAIN COUNTY, OHIO

CLIENT: K. HOWNANIAN HOMES LLC MEADOW LAKES SUBDIVISION #18 SANITARY CONSTRUCTION PLANS TYPICAL WATER DETAILS & RETENTION POND DETAILS

DATE: JANUARY 11, 2019

Table with columns for DATE, REVISIONS, and other project details.

Table with columns for DR, TDR, CH, DH, P.M., BOOK, JOB, SHEET NO., and other project details.

CAD FILE: 1800234-11.0 - 01 - PH 18.076

Technical drawings for hydrant connections. Includes '2-1/2 HOSE NOZZLE HYDRANT CONNECTION' and '4" PUMPER NOZZLE HYDRANT CONNECTION'. Shows side views, top views, and details of the nozzle and cap. Includes a table for 'PROPOSED STORM STRUCTURES'.

Retention basin details. Includes 'RETENTION BASIN DETAIL' and 'RETENTION BASIN DETAIL POND NO. 10'. Shows cross-sections and plan views of the basins. Includes a table for 'PROPOSED STORM STRUCTURES' and a location map.

Retention basin details for Pond No. 4. Includes 'RETENTION BASIN DETAIL POND NO. 4'. Shows a large plan view of the basin with various structural details and annotations. Includes a table for 'PROPOSED STORM STRUCTURES' and a location map.

Retention basin details for Pond No. 6. Includes 'RETENTION BASIN DETAIL POND NO. 6'. Shows a large plan view of the basin with various structural details and annotations. Includes a table for 'PROPOSED STORM STRUCTURES' and a location map.

VERTICAL SCALE: 1" = 10'-0" HORIZONTAL SCALE: 1" = 40'-0"

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SECTION: NORTH, RANGE: EAST  
 TOWN: CITY OF NORTH RIDGEVILLE  
 COUNTY: LORAIN COUNTY, OHIO

CLIENT: K. HOWANIAN HOMES LLC  
 MEADOW LAKES SUBDIVISION #18  
 SANITARY CONSTRUCTION PLANS  
 TYPICAL PAVEMENT DETAILS

DATE: JANUARY 11, 2019

REV.	DATE	BY	DESCRIPTION
1	APRIL 13, 2018	MECH. ENGINEER, NO. 2	

REVISIONS:  
 DR. TDR [ ] CH. DH [ ]  
 P.M. DH [ ]  
 BOOK N/A  
 JOB 18002341  
 SHEET NO. 115

**JOINT LEGEND**

- C Control Joint
- E Expansion Joint (Sleeper Slab)
- LK Longitudinal Key Joint
- T Thickened Edge
- P Pressure Relief Joint
- S Sleeper Slab Expansion Joint

**GENERAL NOTES:**

All materials and workmanship shall conform to the latest test & Ohio Department of Transportation Construction and Material Specifications. Opening of pavement to traffic to be determined by a 4000 P.S.I. beam test (60 lbs. curing) or 4000 P.S.I. cylinder test (28 days). One core or cylinder to be taken for each 600 S.Y. of pavement. All work to be performed under full time inspection by local representative. All dowels, hook bolts or rebar are to be epoxy coated. **Thickened Edge Section:** 7" Item 402 Concrete Pavement - 14 Lbs. Ft. (Standard) or Item 402 Concrete Pavement - 18 Lbs. Ft. (Standard) **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 undrained insulator according to applicable CDOT standard drawings.

**SCHEDULE OF CONDITIONS**

	INDUSTRIAL	RESIDENTIAL
A	50.00	50.00
B	50.00	50.00
C	50.00	50.00

**TYPICAL JOINT LAYOUT FOR CONCRETE CUL-DE-SAC & INTERSECTION PAVEMENT**

**TYPICAL SECTION OF PAVEMENT**

**EXPANSION JOINT (SLEEPER SLAB)**

**LONGITUDINAL KEY JOINT**

**RESIDENTIAL PAVEMENT T = 8" (1" Dia. Dowel)**  
**INDUSTRIAL PAVEMENT T = 9" (1" Dia. Dowel)**

**CONCRETE PAVEMENT STANDARDS**

SCALE: NOT TO SCALE  
 DATE: 10/01/08  
 DRAWN BY: JAB/TEB  
 PAV-4

**TYPICAL SECTION OF RW**

**TYPICAL SECTION OF CONCRETE PAVEMENT**

**TYPICAL SECTION OF ASPHALT CONCRETE PAVEMENT**

**SHALLOW PIPE UNDERDRAIN WITH FABRIC WRAP**

**SIDEWALK DETAIL**

**PAVEMENT & RIGHT-OF-WAY STANDARDS**

SCALE: NOT TO SCALE  
 DATE: 10/01/08  
 DRAWN BY: JAB/TEB  
 PAV-1

**NOTES**

**GENERAL:** The drawing shows alternate types of curb that may be used on various types of pavement. Typical sections of projects show the type to be used. Also the information of the edge of the pavement or the edge of the curb and gutter section.

**NOTE:** One high 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 located 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 shall be 1/2" unless otherwise shown on the plans.

**TOLERANCES:** In the dimensions are as follows: Curb: ±1/8" to ±1/4", Dimensions 0 to ±1/8".

**LEGEND**

- Expansion joint material and joint sealer is not required for the 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.
- Expansion joints shall be provided between combined curb-and-gutter and curb 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.
- Curb 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 concrete material, a joint seal shall also be provided. However, tie bars or hook bolts shall be omitted when the vertical overlap (4" or 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 M238-75 Class 1.

**CONCRETE CURBS & CURB & GUTTER**

SCALE: NOT TO SCALE  
 DATE: 10/01/08  
 DRAWN BY: JAB/TEB  
 PAV-3

**SECTION A-A EXISTING WALK DETAIL**

**SECTION A-A NORMAL DETAIL**

**PERPENDICULAR RAMP W/O FLARES**

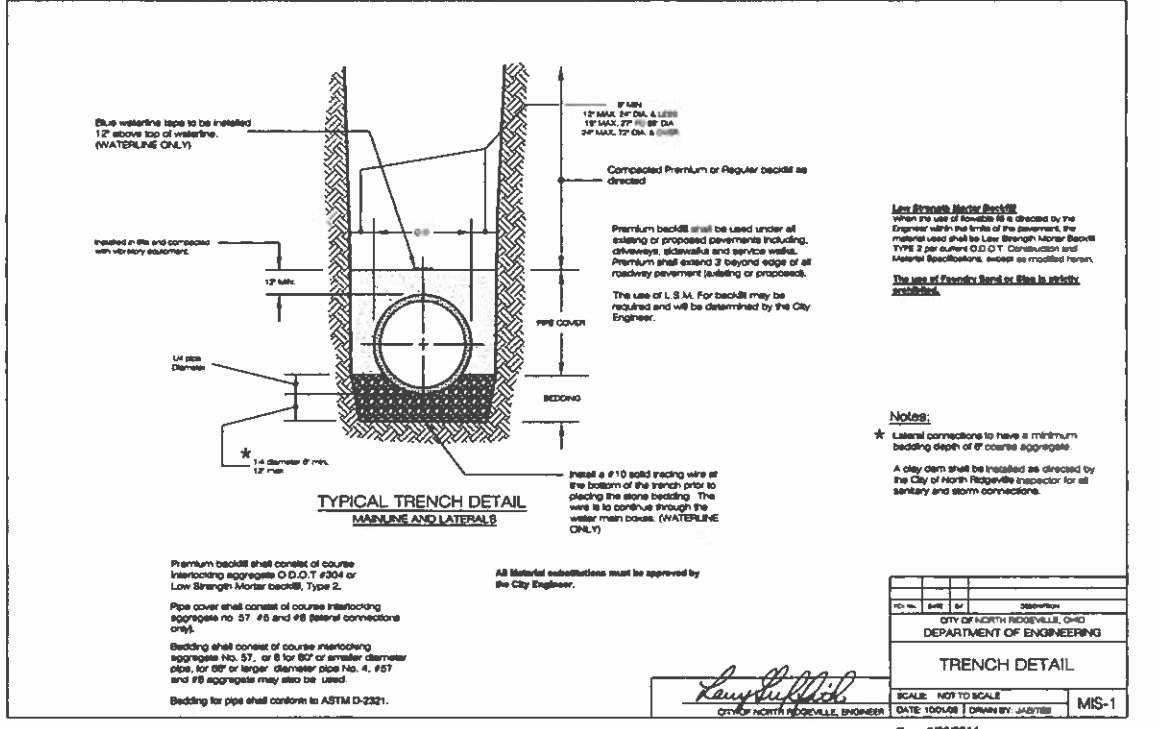
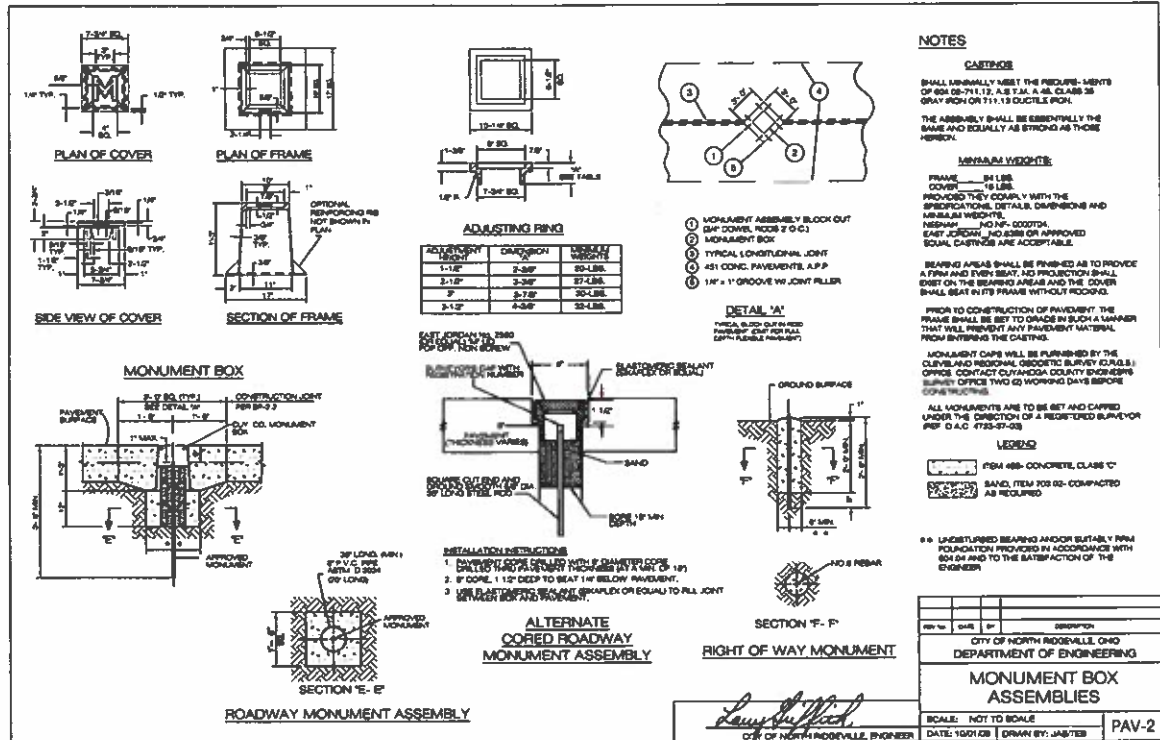
**PERPENDICULAR CURB RAMP DETAIL**

**DETAIL NOTES**

- 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.
- THE SLOPE OF THE RAMP TOWARD THE CURB IS REQUIRED TO BE 12:1 OR DEEPER, RELATIVE TO THE HORIZONTAL, UNLESS APPROVED IN WRITING BY THE ENGINEER.
- 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.
- 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.
- DETECTABLE WARNING CASTING SHALL BE 4" WIDE AND 2" DEEP. 2 EA X 2 EA CASTINGS.
- DETECTABLE WARNING CASTING SHALL BE EAST JORDON IRON WORKS, PRODUCT NO. 0070641, CATALOG NO. 7005PLS, HEAVY DUTY.
- TEXTURE SHALL BE OBTAINED BY COURSE BROOKING TRANSVERSE TO THE RAMP SLOPE AND SHALL BE ROUGHER THAN THE ADJACENT WALK. DOES NOT APPLY TO TRUNCATED DOMES.
- JOINTS SHALL BE PROVIDED IN THE CURB RAMP AS EXTENSIONS OF THE WALK JOINTS. A 0 BY CDOT ITEM 705.03 PREPARED JOINT MATERIAL SHALL BE PROVIDED AROUND THE EDGE OF RAMP BUILT IN EXISTING CONCRETE WALK. LINES SHOWN IN THIS DRAWING INDICATE THE RAMP EDGE AND SLOPE CHANGES AND ARE NOT NECESSARILY JOINT LINES.

**CONCRETE CURBS & CURB & GUTTER**

SCALE: NOT TO SCALE  
 DATE: 10/01/08  
 DRAWN BY: JAB/TEB  
 PAV-9



**E Main St**

**STREET SIGN STANDARDS**

**STREET NAME SIGN SUPPORTS:** SUPPORTS FOR DOUBLE-FACED STREET NAME SIGNS SHALL BE 2-3/8 INCH DIAMETER POSTS MADE OF NEW 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 CONCRETED IN A HOLE WITH A MINIMUM DEPTH OF THREE (3) FEET AND A DIAMETER OF TEN (10) INCHES. THE POST SHALL PROJECT A MINIMUM OF NINE (9) FEET ABOVE GROUND TO THE BOTTOM OF THE SIGN FACE.

**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 RETROREFLECTIVITY PER THE 2007 (OR CURRENT) FEDERAL HIGHWAY ADMINISTRATION AND FEDERAL MUTCD REQUIREMENTS.

LETTERING SHALL BE UPPER AND LOWER CASE AND A MINIMUM OF SIX (6) INCHES IN HEIGHT. THE MINIMUM SIGN HEIGHT IS NINE (9) INCHES. LETTERING SHALL BE UPPER AND LOWER CASE AND A MINIMUM OF FOUR (4) INCHES IN HEIGHT ON LOCAL STREETS WITH A MINIMUM SIGN HEIGHT OF SIX (6) INCHES.

LETTERING SHALL BE WHITE ON A GREEN BACKGROUND.



Know what's below.  
 Call before you dig.

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE MANNER ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE CONTRACTOR. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE CONSTRUCTION BEGINS, AND ACCEPTS TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCURRED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PREPARE ANY AND ALL UNDERGROUND UTILITIES.

**NOTICE:**  
 CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK, OF PERSONS ENGAGED IN THE WORK, OR OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

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SECTION	EAST
TOWN	CITY OF NORTH RIDGEVILLE
LORAIN COUNTY, OHIO	

CLIENT: K. HOWANIAN HOMES LLC  
 MEADOW LAKES SUBDIVISION #18  
 SANITARY CONSTRUCTION PLANS  
 TYPICAL DETAILS

DATE: JANUARY 11, 2019  
 APR 13, 2020  
 OCA PERMIT NO. 2

DR.	TDR	CH	DH
P.J.	DH		
BOOK	N/A		
JOB	18002341		
SHEET NO.	11.6		

REVISONS