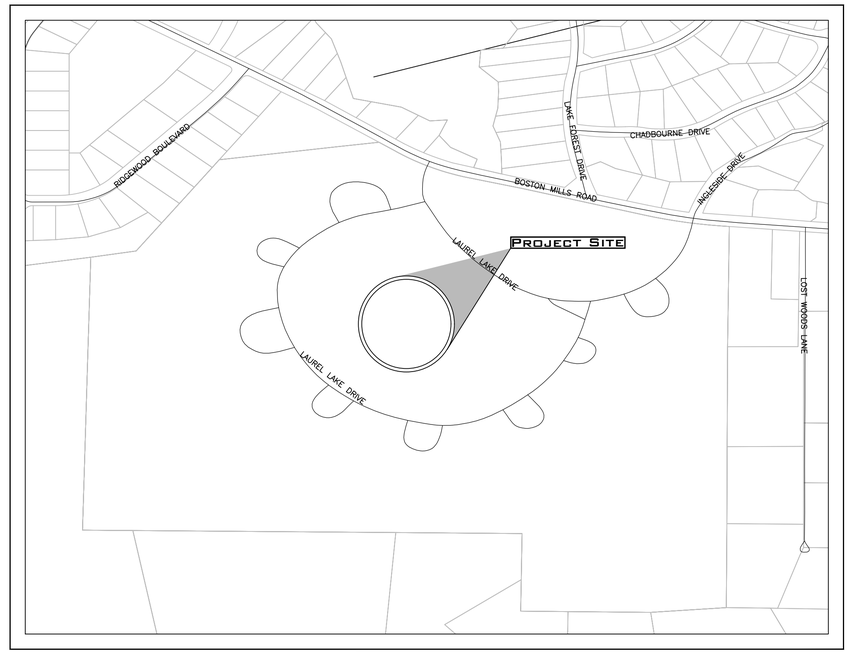
Improvement Plans
For
Laurel Lake Villa
Additional Buidings 1-5, 8,9

The City Of Hudson, County Of Summit And State Of Ohio

Index to Drawings

Title Page	C1.01
Existing Conditions	C2.01
Schematic Plan	C2.02
Buildings 1&2	C3.01,C3.01A-C2.04
Building 3	C4.01-C4.04
Building 4	C5.01-C5.04
Building 5	C6.01-C6.04
Buildings 8&9	C7.01-C7.06
Notes & Details (pavement sections)	C8.01
SWPPP	C9.01



Vicinity Map
Scale: 1" = 400'

David Pietrantone P.E. #61756

5/12/25
Date

STATE OF OHIO
DAVID A. PIETRANTONE
E-61756
REGISTERED
PROFESSIONAL ENGINEER

Prepared For:

Laurel Lake
200 Laurel Lake Drive
Hudson, Ohio 44236

STATE OF OHIO
DAVID A. PIETRANTONE
E-61756
REGISTERED
PROFESSIONAL ENGINEER
For Planning Commission
Not for Construction

RIVERSTONE
Land Surveying - Engineering - Design
3801 Lakeside Avenue, Suite 100
Cleveland - Ohio - 44114
Phone: (216) 491-2000 Fax: (216) 491-9640
www.riverstonesurvey.com

2023-186

Plan Revisions:
5/12/2025
Tree Inventory

Page Revisions:
10/11/2024
Fire Comments

Issued For:
PC Applicaiton
3/17/25
Not for Construction

Laurel Lake Villa
200 Laurel Lake Drive

Title Page

Ohio Utilities Protection Service
Call 811 before you dig

OGPUPS
Ohio Oil & Gas Producers Underground Protection Service
Call (614) 715-2984 or 811

C1.01

GENERAL NOTES:

TOTAL AREA 141.9 ACRES
TOTAL IMPERVIOUS AREA: 23.18 ACRES
IMPERVIOUS COVERAGE: 16.3%

PARCEL NUMBER 3203045
LAUREL LAKE RETIREMENT COMMUNITY INC.
ZONED: OUTER VILLAGE RESIDENTIAL NEIGHBORHOOD

LEGEND

Symbol	Description
M	Monument Box Found
○	Iron Pin or Pipe Found
●	5/8" Iron Pin Set and Capped Riverstone Company Dudley PS6747
	P.K. Nail
G	Gas Meter
△	Gas Valve
	Utility Pole
	Light Pole
	Guy Anchor & Line
TELE	Telephone Box
ELEC	Electric Box
CABLE	Cable Box
	Bollard
	Cleanout / Test Tee
Existing / PROPOSED	Spot Elevation Tag
	Hydrant
	Water Service Valve
	Water Valve
W	Water Meter
	Reducer
	Storm Manhole
	Sanitary Manhole
	Curb Inlet
	Catch Basin
PL	Property Line
CL	Centerline

Ex. Parcel line
Original Sublot Line
Original Lot Line
Centerline
Property Line
Right-of-way Line (R/W)
Easement Line
Railroad Tracks

	Existing	PROPOSED
Electric Line		
Gas Line		
Sanitary/Combination Sewer		
Storm Sewer		
Waterline		
Fence Line (Wooden)		
Fence Line (Chain-Link)		
Guardrail		

Ac.	Acres	L.C.A.	Limited Common Area
Adj.	Adjacent	L.F.	Lineal Feet
A.F.N.	Auditor's File Number	M.E.	Match Existing
Asp.	Asphalt	Meas./M.	Measured
B.F.	Basement Floor	MH	Manhole
BW	Bottom of Wall	Obs.	Observed
Calc./C.	Calculated	Pg.	Page
CB	Catch Basin	P.P.N.	Permanent Parcel Number
C.C.M.R	Cuyahoga County Map Records	Prop	Proposed
C.L.F.	Chain-link Fence	Rec./R.	Record
Clr.	Clears	R/W	Right-of-way
C.O.	Clean Out	San.	Sanitary
Comb.	Combination	S.F.	Square Feet
Conc.	Concrete	S/L	Sublot
Conn.	Connection	Stm.	Storm
D.H.	Drill Hole	T.B.M.	Temporary Bench Mark
D.I.W.M.	Ductile Iron Water Main	TBR	To Be Removed
		T/C	Top of Curb
Elec	Electric	Tele	Telephone
Elev	Elevation	T.F.	Top Of Footer
Encr.	Encroaches	T.T.	Test Tee
Ex.	Existing	TW	Top of Wall
F.F.	Finished Floor	Typ.	Typical
GUT	Gutter	Vol.	Volume
Inv	Invert	Wat	Water

SURVEY NOTE: SURVEY, BOUNDARY AND UTILITY INFORMATION COMPLETED BY CT CONSULTANTS AND WAS PROVIDED TO THE RIVERSTONE COMPANY FOR USE. THE ENGINEER IS NOT RESPONSIBLE FOR MISSING OR INCOMPLETE INFORMATION. THE ENGINEER RECOMMENDS CONTRACTOR VISIT SITE PRIOR TO CONSTRUCTION. CONTRACTOR SHALL FIELD VERIFY LOCATIONS, ELEVATIONS AND UTILITIES PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY ENGINEER AND OWNER OF ANY DISCREPANCIES IMMEDIATELY UPON DISCOVERY.

GRAPHIC SCALE
20 0 10 20 30
(IN FEET)
1 inch = 20 ft.

For Planning Commission
Not for Construction

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LAND SURVEYING · ENGINEERING · DESIGN
3800 LAKESIDE AVENUE · SUITE 100
CLEVELAND, OHIO · 44114
PHONE: (216) 491-2000 FAX: (216) 491-9640
WWW.RIVERSTONESURVEY.COM

2023-186

PLAN REVISIONS:
5/12/2025
TREE INVENTORY

PAGE REVISIONS:

ISSUED FOR:
PC APPLICAITON
3/17/25
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LAUREL LAKE VILLA
200 LAUREL LAKE DRIVE

EXISTING CONDITIONS

Ohio Utilities Protection Service
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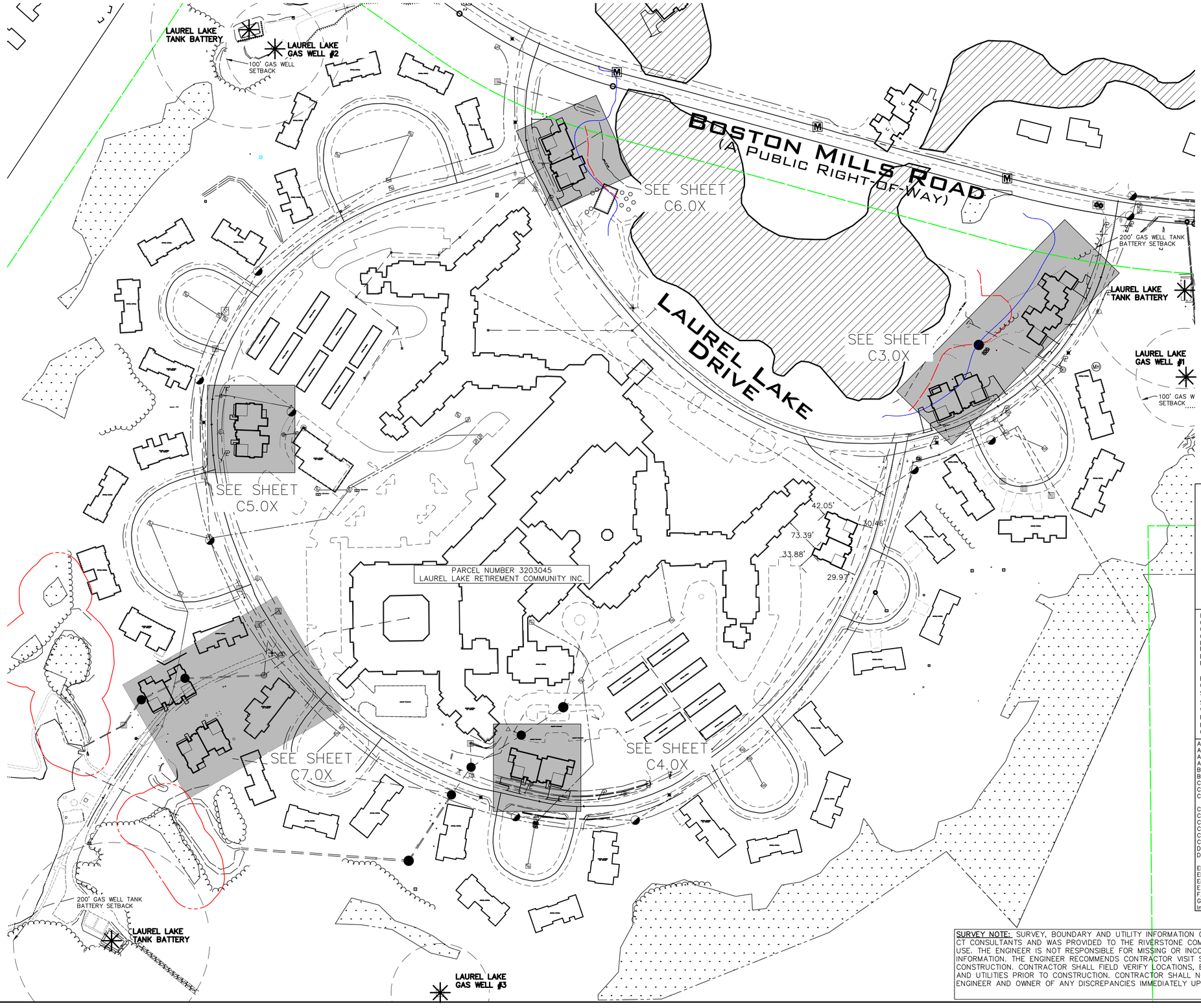

GENERAL NOTES:

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Existing | PROPOSED

Ac.	Acres	L.C.A.	Limited Common Area
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GRAPHIC SCALE

20 0 10 20 30

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2023-186

PLAN REVISIONS:
5/12/2025
TREE INVENTORY

PAGE REVISIONS:

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PC APPLICAITON
3/17/25
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LAUREL LAKE VILLA
200 LAUREL LAKE DRIVE

SCHEMATIC PLAN

Ohio Utilities Protection Service
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OGPUPS
Ohio Oil & Gas Producers Underground Protection Service
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C2.01

SCHEMATIC KEY
N.T.S

SITE DEMOLITION LEGEND:

TREE TO BE REMOVED

WOODED AREA TO BE REMOVED.

SEE SHEET C3.01A FOR TREE IDENTIFICATION

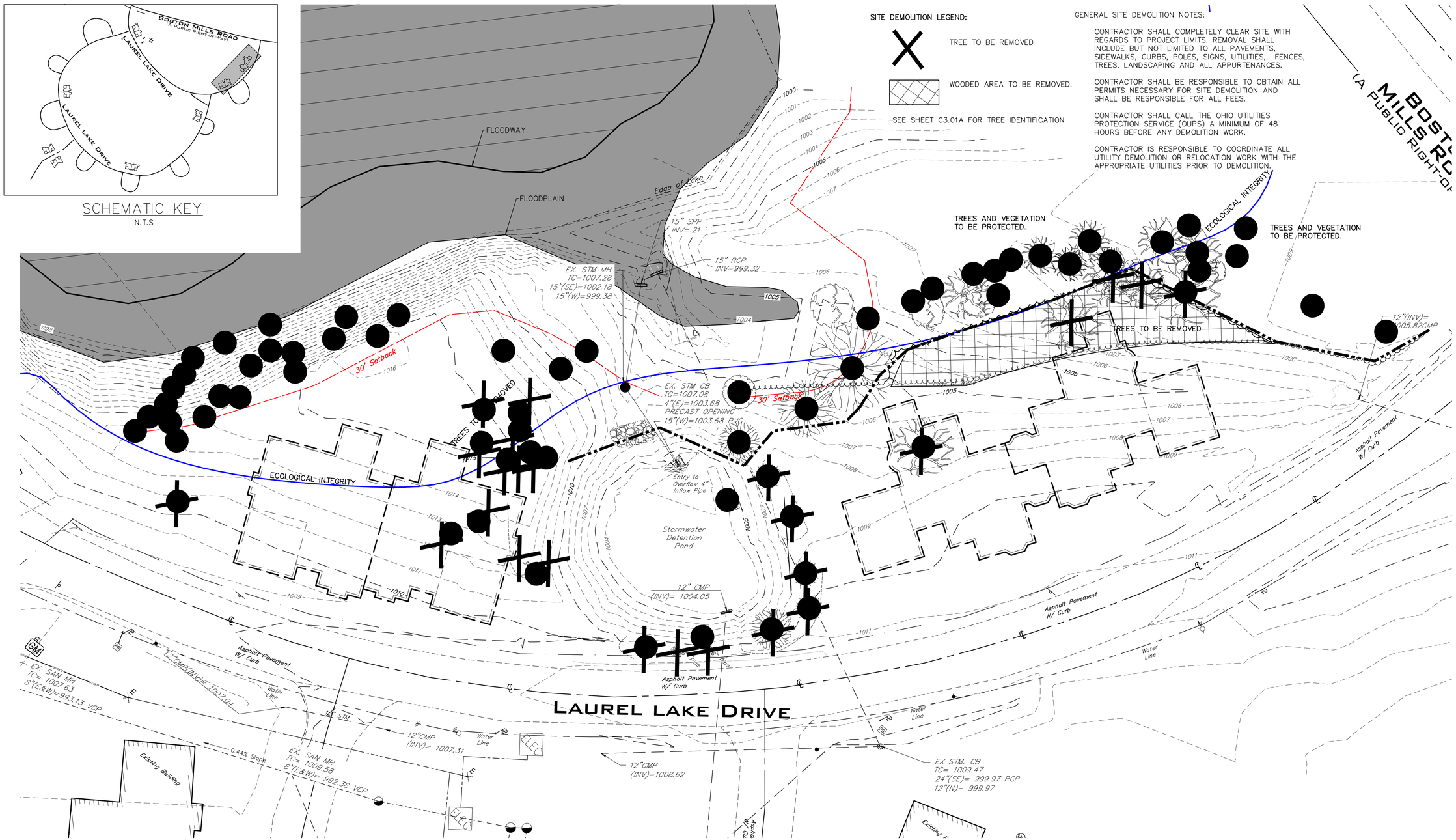
GENERAL SITE DEMOLITION NOTES:

CONTRACTOR SHALL COMPLETELY CLEAR SITE WITH REGARDS TO PROJECT LIMITS. REMOVAL SHALL INCLUDE BUT NOT LIMITED TO ALL PAVEMENTS, SIDEWALKS, CURBS, POLES, SIGNS, UTILITIES, FENCES, TREES, LANDSCAPING AND ALL APPURTENANCES.

CONTRACTOR SHALL BE RESPONSIBLE TO OBTAIN ALL PERMITS NECESSARY FOR SITE DEMOLITION AND SHALL BE RESPONSIBLE FOR ALL FEES.

CONTRACTOR SHALL CALL THE OHIO UTILITIES PROTECTION SERVICE (OUPS) A MINIMUM OF 48 HOURS BEFORE ANY DEMOLITION WORK.

CONTRACTOR IS RESPONSIBLE TO COORDINATE ALL UTILITY DEMOLITION OR RELOCATION WORK WITH THE APPROPRIATE UTILITIES PRIOR TO DEMOLITION.



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(IN FEET)
1 inch = 20 ft.

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2023-186

PLAN REVISIONS:
5/12/2025
TREE INVENTORY

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PC APPLICAITON
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LAUREL LAKE VILLA
200 LAUREL LAKE DRIVE

SITE DEMOLITION PLAN - BUILDING 1&2

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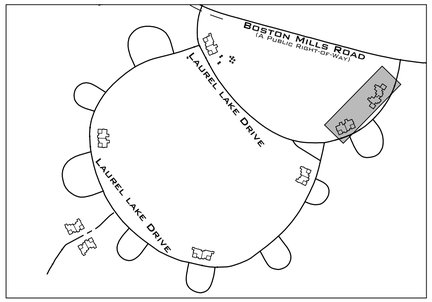
C3.01



SCHEMATIC KEY

N.T.S

SITE DEMOLITION LEGEND:

TREE TO BE REMOVED

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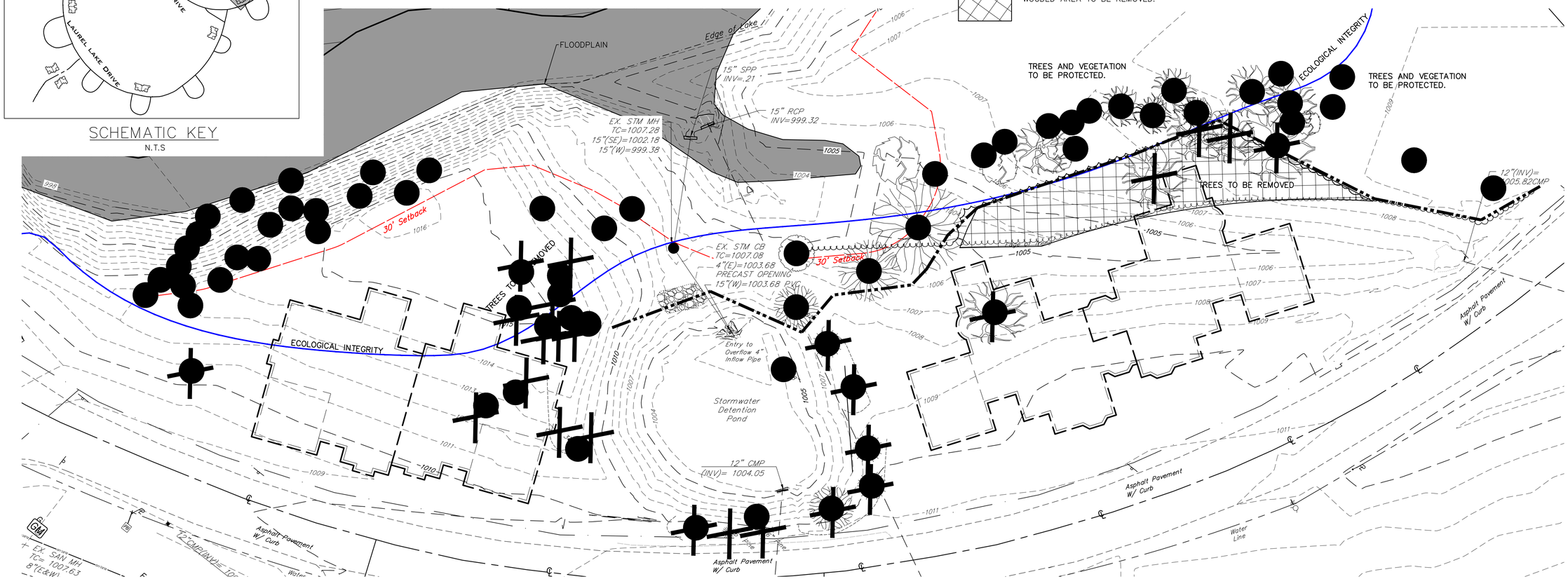

1	red maple	*Acer rubrum*	6		Good
2	black cherry	*Prunus serotina*	13	2	Fair
3	silver maple	*Acer saccharinum*	14		Fair
4	black cherry	*Prunus serotina*	10		Fair
5	black cherry	*Prunus serotina*	10		Fair
6	Norway maple	*Acer platanoides*	11		Fair
7	black cherry	*Prunus serotina*	16		Fair
8	red maple	*Acer rubrum*	11		Fair
9	red maple	*Acer rubrum*	10		Fair
10	red maple	*Acer rubrum*	14		Fair
11	bird cherry	*Prunus avium*	7		Fair
12	red maple	*Acer rubrum*	12		Fair
13	sugar maple	*Acer saccharum*	18		Fair
14	red maple	*Acer rubrum*	18		Fair
15	red maple	*Acer rubrum*	13		Fair
16	northern red oak	*Quercus rubra*	11		Poor
17	red maple	*Acer rubrum*	16,17	2	Fair
18	red maple	*Acer rubrum*	7,7,6,5	4	Fair
19	bird cherry	*Prunus avium*	7		Fair
20	red maple	*Acer rubrum*	8		Fair
21	American elm	*Ulmus americana*	7		Fair
22	red maple	*Acer rubrum*	14		Fair
23	red maple	*Acer rubrum*	11,15,9	3	Fair
24	bigtooth aspen	*Populus grandidentata*	13		Fair
25	bigtooth aspen	*Populus grandidentata*	10		Fair
26	sugar maple	*Acer saccharum*	20		Fair
27	white fir	*Abies concolor*	7		Good
28	red maple	*Acer rubrum*	24		Poor
29	bigtooth aspen	*Populus grandidentata*	11		Fair
30	bird cherry	*Prunus avium*	10		Fair
31	bigtooth aspen	*Populus grandidentata*	8		Fair
32	American beech	*Fagus grandifolia*	11		Fair
33	American beech	*Fagus grandifolia*	11		Fair

34	American beech	*Fagus grandifolia*	11		Fair
35	bigtooth aspen	*Populus grandidentata*	11		Fair
36	bigtooth aspen	*Populus grandidentata*	7		Fair
37	American basswood	*Tilia americana*	12		Fair
38	bigtooth aspen	*Populus grandidentata*	6		Fair
39	American beech	*Fagus grandifolia*	16		Fair
40	bitternut hickory	*Carya cordiformis*	13		Fair
41	northern red oak	*Quercus rubra*	21		Fair
42	bald cypress	*Taxodium distichum*	7		Good
43	northern red oak	*Quercus rubra*	11		Good
44	northern red oak	*Quercus rubra*	21		Fair
45	black cherry	*Prunus serotina*	17		Fair
46	northern red oak	*Quercus rubra*	18		Good
47	northern red oak	*Quercus rubra*	14		Fair
48	northern red oak	*Quercus rubra*	23		Fair
49	northern red oak	*Quercus rubra*	10		Good
50	northern red oak	*Quercus rubra*	15		Fair
51	northern red oak	*Quercus rubra*	15		Fair
52	northern red oak	*Quercus rubra*	24		Good
53	northern red oak	*Quercus rubra*	40		Fair
54	American basswood	*Tilia americana*	8,15,8	3	Fair
55	northern red oak	*Quercus rubra*	20		Fair
56	white oak	*Quercus alba*	18		Good
57	American basswood	*Tilia americana*	12,11,10	3	Poor
58	northern red oak	*Quercus rubra*	25		Fair
59	northern red oak	*Quercus rubra*	33		Good
60	northern red oak	*Quercus rubra*	21		Fair
61	northern red oak	*Quercus rubra*	21		Good
62	American beech	*Fagus grandifolia*	11		Fair
63	American beech	*Fagus grandifolia*	16		Fair
64	American basswood	*Tilia americana*	13		Fair
65	black cherry	*Prunus serotina*	18		Fair
66	flowering crabapple	*Malus sylvestris*	9		Fair

67	sweetgum	*Liquidambar styraciflua*	20		Good
68	red maple	*Acer rubrum*	14		Fair
69	white fir	*Abies concolor*	7		Good
70	white oak	*Quercus alba*	11		Fair
71	white oak	*Quercus alba*	16		Fair
72	white oak	*Quercus alba*	11		Fair
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76	white oak	*Quercus alba*	27		Fair
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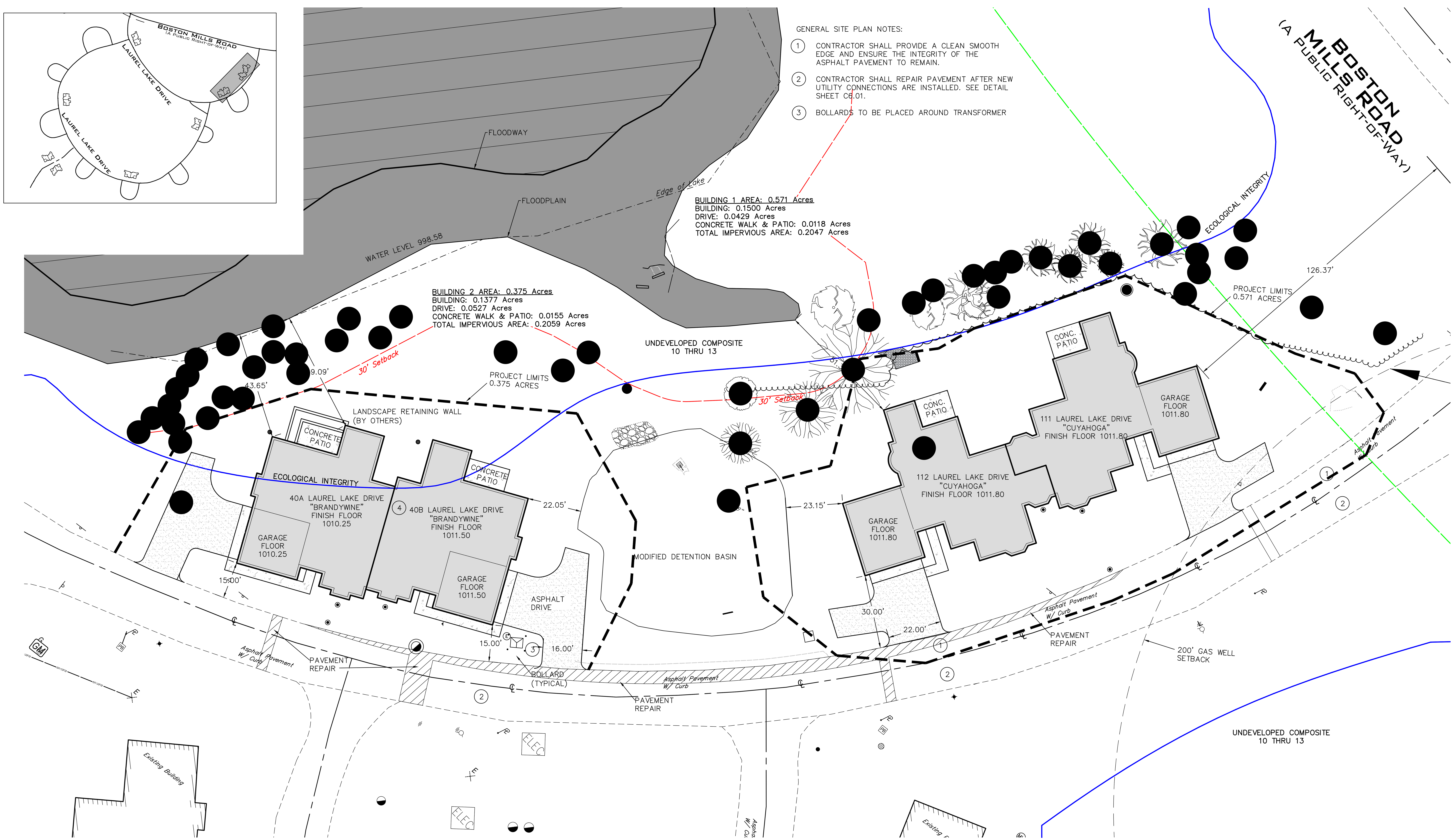

GENERAL SITE PLAN NOTES:

1. CONTRACTOR SHALL PROVIDE A CLEAN SMOOTH EDGE AND ENSURE THE INTEGRITY OF THE ASPHALT PAVEMENT TO REMAIN.
2. CONTRACTOR SHALL REPAIR PAVEMENT AFTER NEW UTILITY CONNECTIONS ARE INSTALLED. SEE DETAIL SHEET C6.01.
3. BOLLARDS TO BE PLACED AROUND TRANSFORMER

https://edocpub.epa.ohio.gov/PlanReview

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C.L.F.	Chain-link Fence	R/W	Right-of-way
Clr.	Clears	San.	Sanitary
Conc.	Concrete	S.F.	Square Feet
Conn.	Connection	S/L	Sublot
D.H.	Drill Hole	Stm.	Storm
D.I.W.M.	Ductile Iron Water Main	T.B.M.	Temporary Bench Mark
Elec	Electric	TBR	To Be Removed
Encr.	Encroaches	Tele	Telephone
Ex.	Existing	T.F.	Top Footer
F.F.	Finished Floor	Vol.	Volume
		Wat	Water

FLOODPLAIN

FLOODWAY

GRAPHIC SCALE
20 0 10 20 30
(IN FEET)
1 inch = 20 ft.

STATE OF OHIO DAVID A. PIETRANTONE E-61756 PROFESSIONAL ENGINEER REGISTERED
For Planning Commision Not for Construction

RIVERSTONE
LAND SURVEYING - ENGINEERING - DESIGN
3800 LAKESIDE AVENUE - SUITE 100
CLEVELAND - OHIO - 44114
PHONE: (216) 491-2000 FAX: (216) 491-9640
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2023-186

PLAN REVISIONS:
5/12/2025
TREE INVENTORY

PAGE REVISIONS:

ISSUED FOR:
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3/17/25
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LAUREL LAKE VILLA
200 LAUREL LAKE DRIVE

SITE PLAN - BUILDING 1 & 2

Ohio Utilities Protection Service Call 811 before you dig

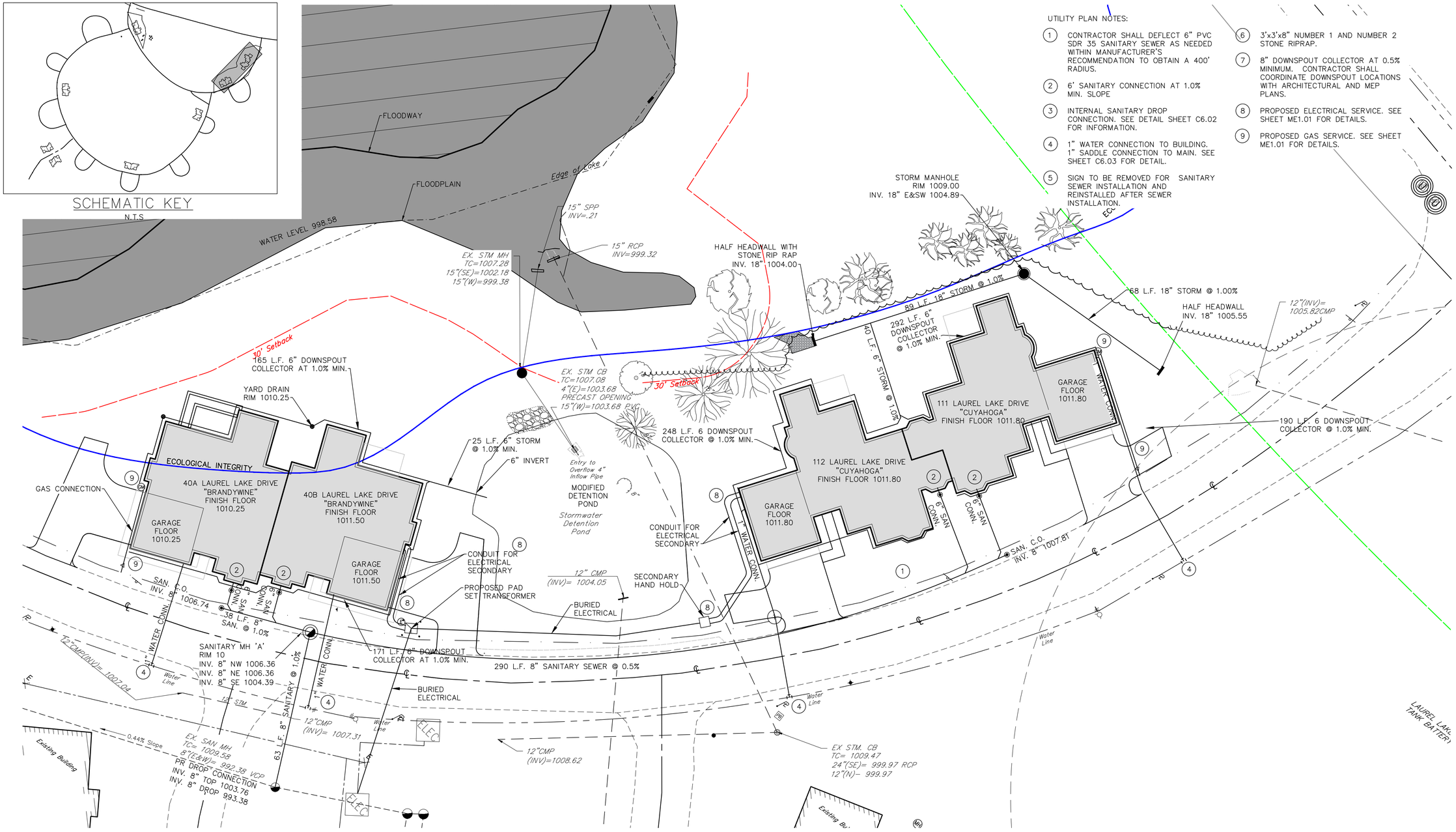
OGPUPS

C3.02

SCHEMATIC KEY
N.T.S.

UTILITY PLAN NOTES:

1. CONTRACTOR SHALL DEFLECT 6" PVC SDR 35 SANITARY SEWER AS NEEDED WITHIN MANUFACTURER'S RECOMMENDATION TO OBTAIN A 400' RADIUS.
2. 6' SANITARY CONNECTION AT 1.0% MIN. SLOPE
3. INTERNAL SANITARY DROP CONNECTION. SEE DETAIL SHEET C6.02 FOR INFORMATION.
4. 1" WATER CONNECTION TO BUILDING. 1" SADDLE CONNECTION TO MAIN. SEE SHEET C6.03 FOR DETAIL.
5. SIGN TO BE REMOVED FOR SANITARY SEWER INSTALLATION AND REINSTALLED AFTER SEWER INSTALLATION.
6. 3'x3'x8" NUMBER 1 AND NUMBER 2 STONE RIPRAP.
7. 8" DOWNSPOUT COLLECTOR AT 0.5% MINIMUM. CONTRACTOR SHALL COORDINATE DOWNSPOUT LOCATIONS WITH ARCHITECTURAL AND MEP PLANS.
8. PROPOSED ELECTRICAL SERVICE. SEE SHEET ME1.01 FOR DETAILS.
9. PROPOSED GAS SERVICE. SEE SHEET ME1.01 FOR DETAILS.



LEGEND

- M = Monument Box Found
- = Iron Pin or Pipe Found
- = 5/8" Iron Pin Set and Capped Riverstone Company Dudley PS6747
- = P.K. Nail
- = Gas Meter
- = Gas Valve
- = Utility Pole
- = Light Pole
- = Guy Anchor & Line
- = Telephone Box
- = Electric Box
- = Cable Box
- = Bollard
- Existing / PROPOSED = Spot Elevation Tag
- = Hydrant
- = Water Service Valve
- = Water Valve
- = Water Meter
- = Reducer
- = Storm Manhole
- = Sanitary Manhole
- = Curb Inlet
- = Catch Basin
- = Round Curb Inlet
- = Cleanout/Test Tee

Ex. Parcel line
Original Sublot Line
Original Lot Line
Centerline
Property Line
Right-of-way Line (R/W)
Easement Line
Railroad Tracks
Electric Line
Gas Line
Sanitary/Combination Sewer
Storm Sewer
Waterline
Fence Line (Wooden)
Fence Line (Chain-Link)
Guardrail

Ac.	Acres	L.C.A.	Limited Common Area
Adj.	Adjacent	Meas./M.	Measured
Asp.	Asphalt	MH	Manhole
B.F.	Basement Floor	Obs.	Observed
Calc./C.	Calculated	Pg.	Page
CB	Catch Basin	P.P.N.	Permanent Parcel Number
C.C.M.R.	Cuyahoga County Map Records	℄	Property Line
		Rec./R.	Record
℄	Centerline	R/W	Right-of-way
C.L.F.	Chain-link Fence	San.	Sanitary
Clr.	Clears	S.F.	Square Feet
Conc.	Concrete	S/L	Sublot
Conn.	Connection	Stm.	Storm
D.H.	Drill Hole	T.B.M.	Temporary Bench Mark
D.I.W.M.	Ductile Iron Water Main	TBR	To Be Removed
Elec	Electric	Tele	Telephone
Encr.	Encroaches	T.F.	Top Footer
Ex.	Existing	Vol.	Volume
F.F.	Finished Floor	Wat	Water

SURVEY NOTE: SURVEY, BOUNDARY AND UTILITY INFORMATION COMPLETED BY CT CONSULTANTS AND WAS PROVIDED TO THE RIVERSTONE COMPANY FOR USE. THE ENGINEER IS NOT RESPONSIBLE FOR MISSING OR INCOMPLETE INFORMATION. THE ENGINEER RECOMMENDS CONTRACTOR VISIT SITE PRIOR TO CONSTRUCTION. CONTRACTOR SHALL FIELD VERIFY LOCATIONS, ELEVATIONS AND UTILITIES PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY ENGINEER AND OWNER OF ANY DISCREPANCIES IMMEDIATELY UPON DISCOVERY.

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LAUREL LAKE VILLA
200 LAUREL LAKE DRIVE

UTILITY PLAN - BUILDING 1&2

Ohio Utilities Protection Service
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OGPUPS
Ohio Oil & Gas Producers Underground Protection Service
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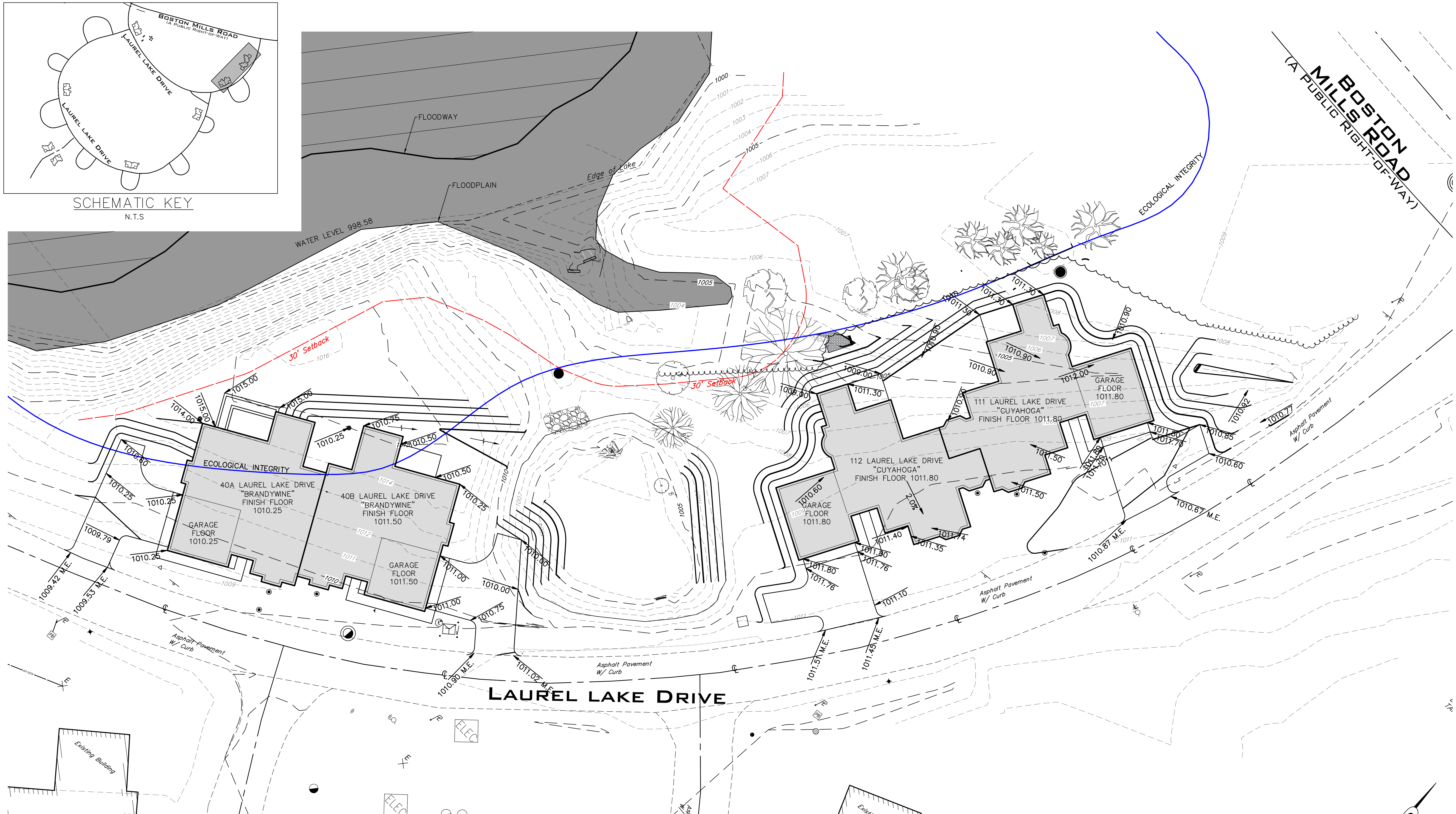
C3.03



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Fence Line (Wooden)
Fence Line (Chain-Link)
Guardrail

Ac.	Acres
Adj.	Adjacent
Asp.	Asphalt
B.F.	Basement Floor
Calc./C.	Calculated
CB	Catch Basin
C.C.M.R.	Cuyahoga County Map Records
℄	Centerline
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Ex.	Existing
F.F.	Finished Floor
L.C.A.	Limited Common Area
Meas./M.	Measured
MH	Manhole
Obs.	Observed
Pg.	Page
P.P.N.	Permanent Parcel Number
PL	Property Line
Rec./R.	Record
R/W	Right-of-way
San.	Sanitary
S.F.	Square Feet
S/L	Sublot
Stm.	Storm
T.B.M.	Temporary Bench Mark
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GRADING PLAN - BUILDING 1&2

Ohio Utilities Protection Service
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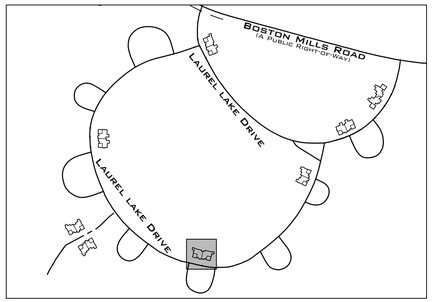
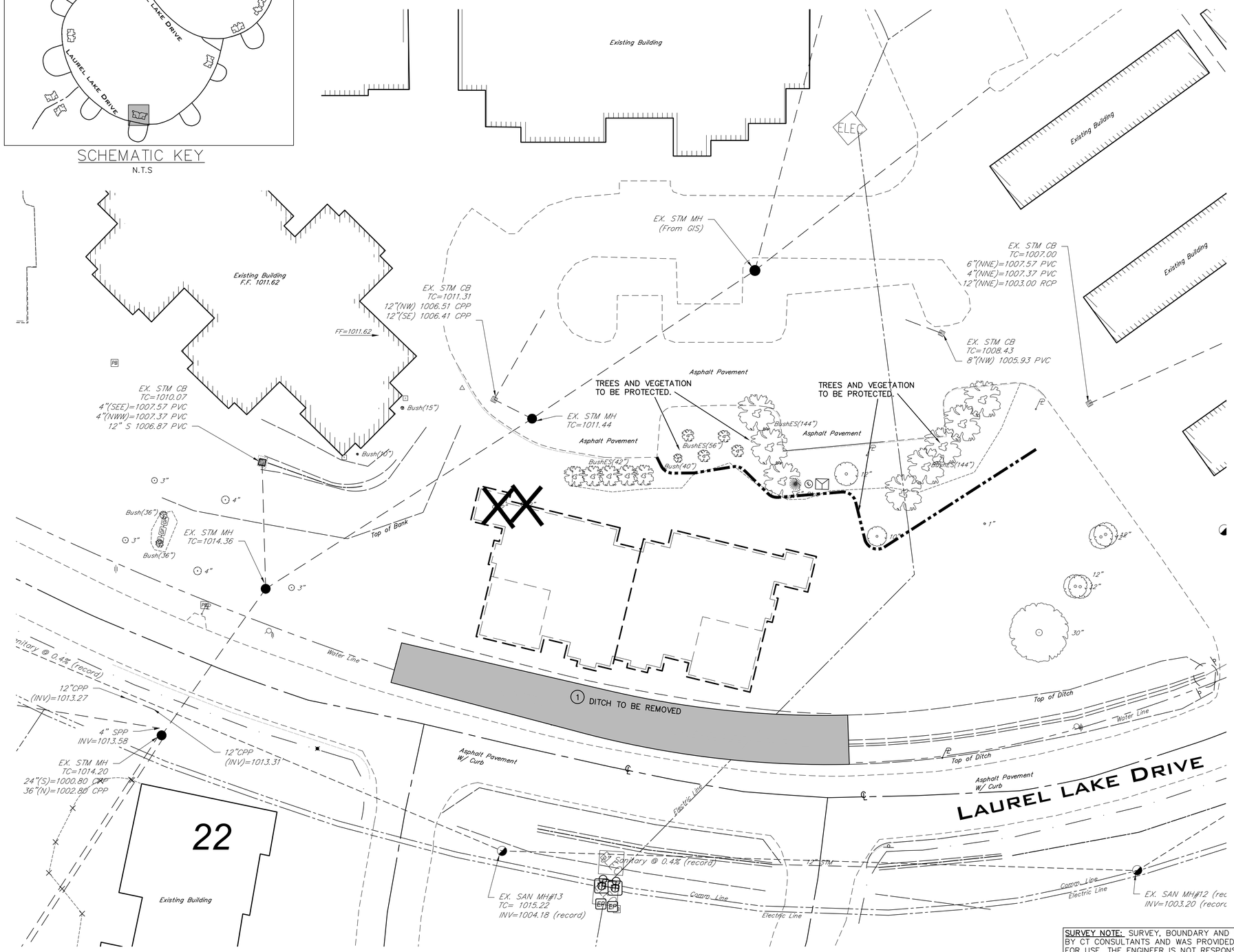
Ohio Oil & Gas Producers Underground Protection Service



SCHEMATIC KEY
N.T.S



GENERAL SITE DEMOLITION NOTES:

CONTRACTOR SHALL COMPLETELY CLEAR SITE WITH REGARDS TO PROJECT LIMITS. REMOVAL SHALL INCLUDE BUT NOT LIMITED TO ALL PAVEMENTS, SIDEWALKS, CURBS, POLES, SIGNS, UTILITIES, FENCES, TREES, LANDSCAPING AND ALL APPURTENANCES.

CONTRACTOR SHALL BE RESPONSIBLE TO OBTAIN ALL PERMITS NECESSARY FOR SITE DEMOLITION AND SHALL BE RESPONSIBLE FOR ALL FEES.

CONTRACTOR SHALL CALL THE OHIO UTILITIES PROTECTION SERVICE (OUPS) A MINIMUM OF 48 HOURS BEFORE ANY DEMOLITION WORK.

CONTRACTOR IS RESPONSIBLE TO COORDINATE ALL UTILITY DEMOLITION OR RELOCATION WORK WITH THE APPROPRIATE UTILITIES PRIOR TO DEMOLITION.

SITE DEMOLITION LEGEND:

X TREE TO BE REMOVED

WOODED AREA TO BE REMOVED.

SITE DEMOLITION PLAN KEYNOTES:

1. CONTRACTOR TO REMOVE DITCH. SEE UTILITY AND GRADING PLANS.

LEGEND

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Railroad Tracks

	Existing	PROPOSED
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Gas Line		
Sanitary/Combination Sewer		
Storm Sewer		
Waterline		
Fence Line (Wooden)		
Fence Line (Chain-Link)		
Guardrail		

Ac.	Acres	L.C.A.	Limited Common Area
Adj.	Adjacent	L.F.	Lineal Feet
A.F.N.	Auditor's File Number	M.E.	Match Existing
Asp.	Asphalt	Meas./M.	Measured
B.F.	Basement Floor	MH	Manhole
BW	Bottom of Wall	Obs.	Observed
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Clr.	Clears	R/W	Right-of-way
C.O.	Clean Out	San.	Sanitary
Comb.	Combination	S.F.	Square Feet
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F.F.	Finished Floor	Typ.	Typical
GUT	Gutter	Vol.	Volume
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SITE DEMOLITION PLAN - BUILDING 3

Ohio Utilities Protection Service
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OGPUPS
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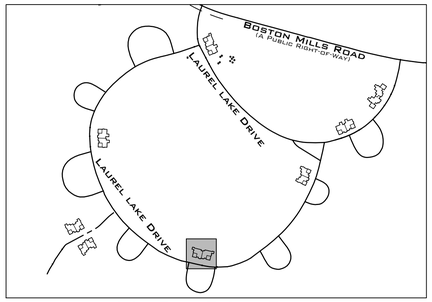
C4.01



SCHEMATIC KEY

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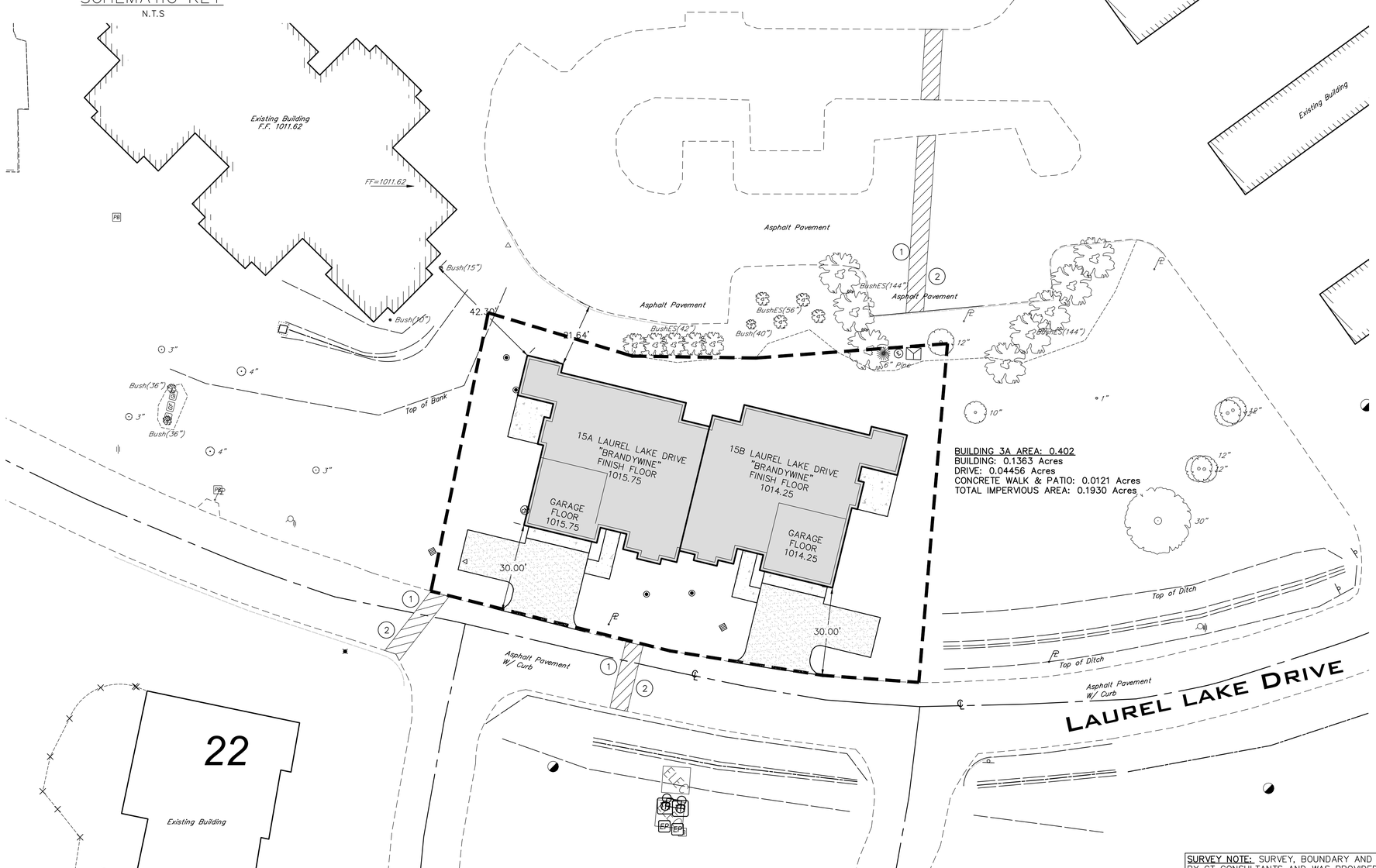

BUILDING 3A AREA: 0.402
BUILDING: 0.1363 Acres
DRIVE: 0.04456 Acres
CONCRETE WALK & PATIO: 0.0121 Acres
TOTAL IMPERVIOUS AREA: 0.1930 Acres

GENERAL SITE PLAN NOTES:

1. CONTRACTOR SHALL PROVIDE A CLEAN SMOOTH EDGE AND ENSURE THE INTEGRITY OF THE ASPHALT PAVEMENT TO REMAIN.
2. CONTRACTOR SHALL REPAIR PAVEMENT AFTER NEW UTILITY CONNECTIONS ARE INSTALLED. SEE DETAIL SHEET C6.01.

LEGEND

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- = Gas Valve
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Ac.	Acres	L.C.A.	Limited Common Area
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A.F.N.	Auditor's File Number	M.E.	Match Existing
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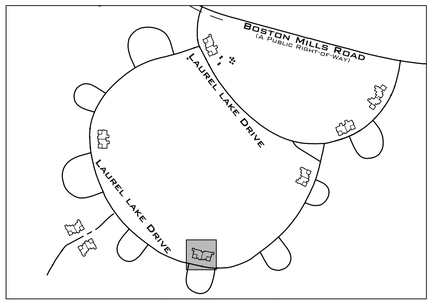

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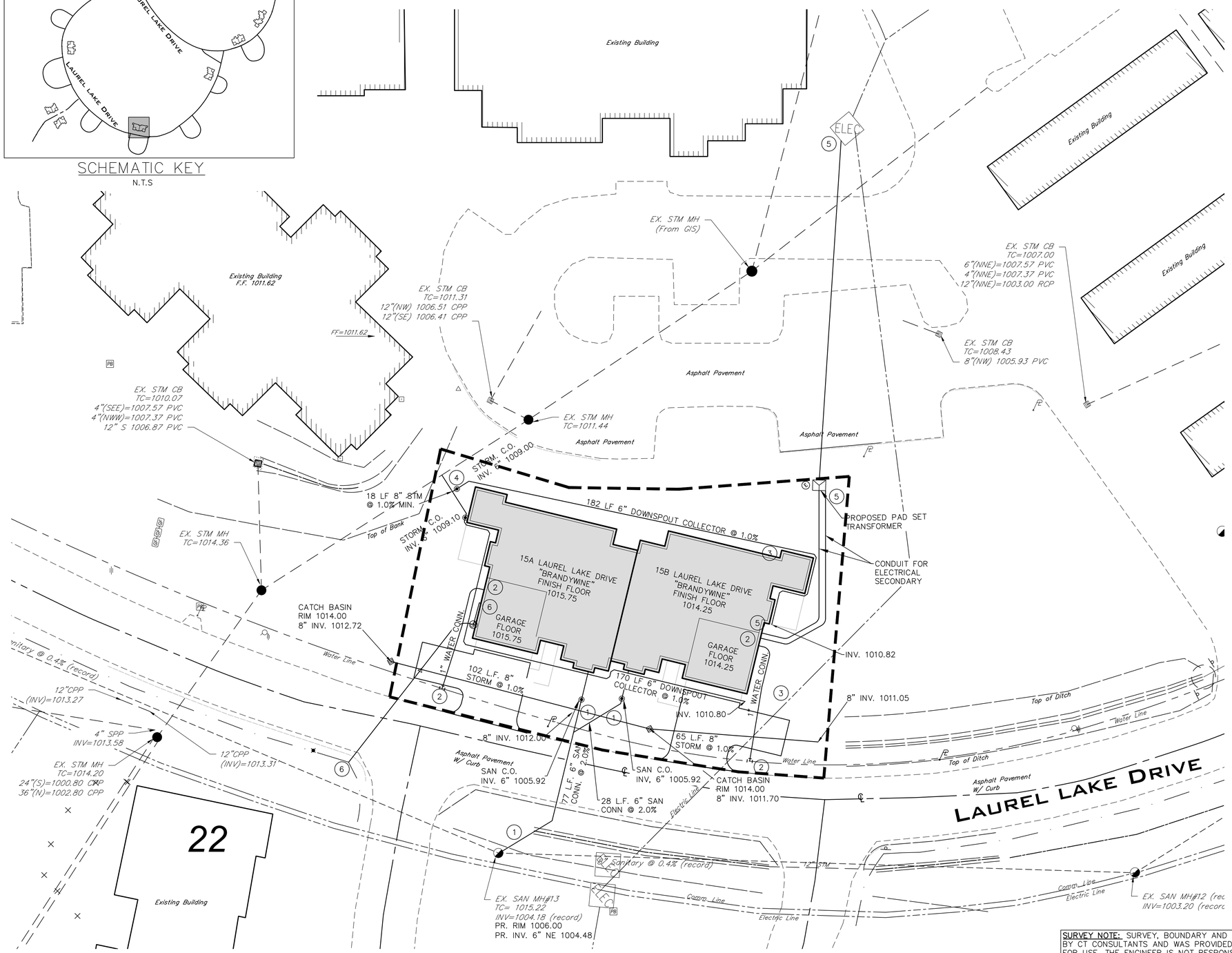

UTILITY PLAN NOTES:

1. 6" SANITARY CONNECTION AT 2.0% SLOPE
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3. 6" DOWNSPOUT COLLECTOR AT 1.0% MINIMUM. CONTRACTOR SHALL COORDINATE DOWNSPOUT LOCATIONS WITH ARCHITECTURAL AND MEP PLANS.
4. PRIOR TO CONSTRUCTION CONTRACTOR SHALL LOCATE AND EXPOSE THE EXISTING STORM SEWER. CONTRACTOR SHALL NOTIFY THE ENGINEER OF THE LOCATION AND DEPTH OF THE EXISTING STORM SEWER TO VERIFY PIPE SLOPES AND PROPOSED INVERTS.
5. PROPOSED ELECTRICAL SERVICE. SEE MEP PLANS SHEET ME1.01 FOR DETAILS.
6. PROPOSED GAS SERVICE. SEE MEP PLANS SHEET ME1.01 FOR DETAILS.

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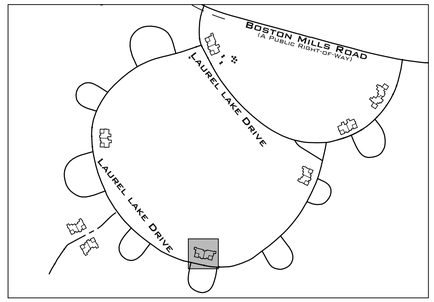
LAUREL LAKE VILLA
200 LAUREL LAKE DRIVE

UTILITY PLAN - BUILDING 3

Ohio Utilities Protection Service
Call 811 before you dig

OGPUPS
Ohio Oil & Gas Producers Underground Protection Service
Call (614) 715-2984 or 811

C4.03



SCHEMATIC KEY

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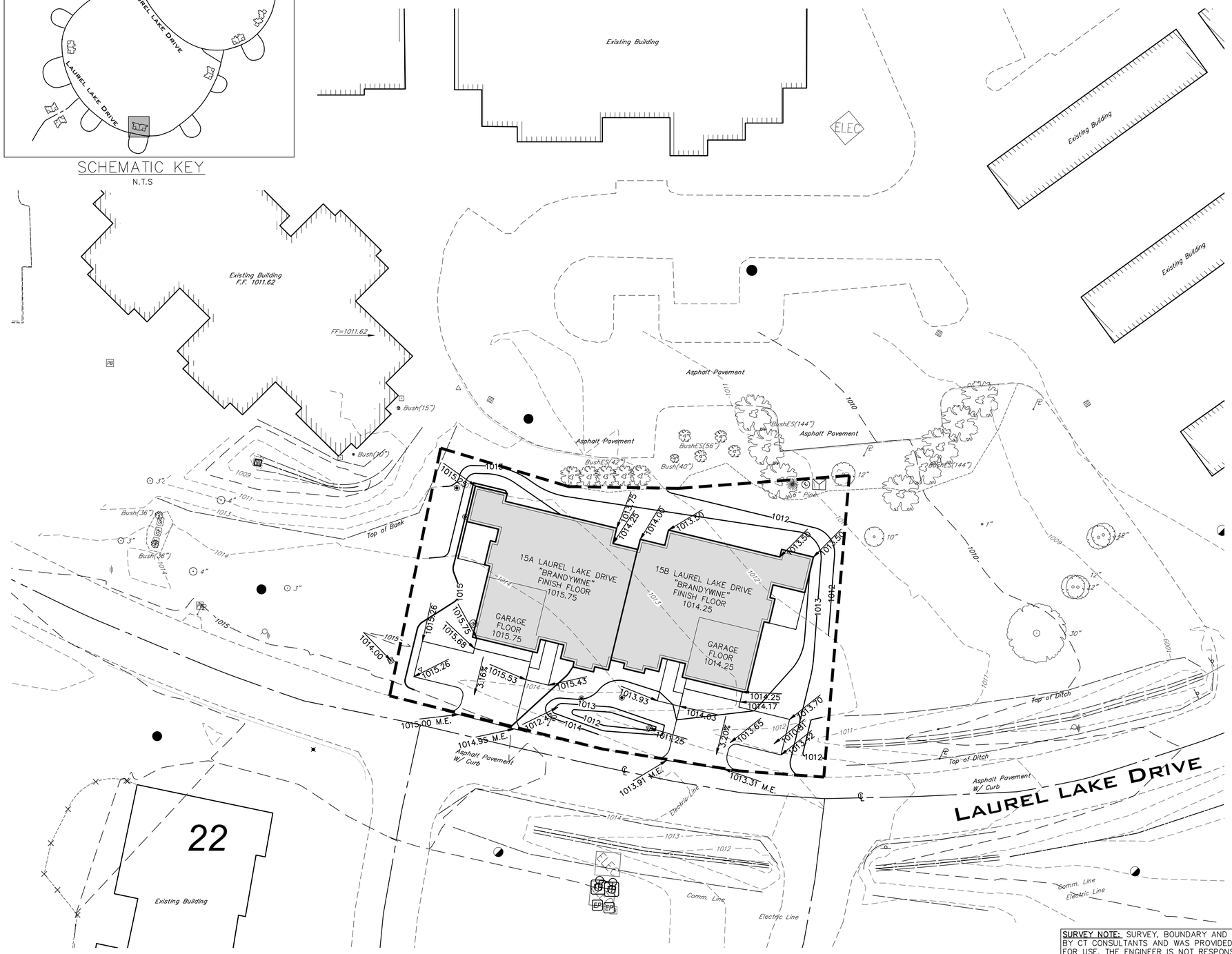

LEGEND

- M = Monument Box Found
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- = 5/8" Iron Pin Set and Capped Riverstone Company Dudley PS6747
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Ex. Parcel line
Original Sublot Line
Original Lot Line
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Right-of-way Line
Easement Line
Railroad Tracks

	Existing	PROPOSED
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Storm Sewer		
Waterline		
Fence Line (Wooden)		
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Adj.	Adjacent	L.F.	Lineal Feet
A.F.N.	Auditor's File Number	M.E.	Match Existing
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B.F.	Basement Floor	MH	Manhole
BW	Bottom of Wall	Obs.	Observed
Calc./C.	Calculated	Pg.	Page
CB	Catch Basin	P.P.N.	Permanent Parcel Number
C.C.M.R	Cuyahoga County Map Records	Prop	Proposed
C.L.F.	Chain-link Fence	Rec./R.	Record
Clr.	Clears	R/W	Right-of-way
C.O.	Clean Out	San.	Sanitary
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GRAPHIC SCALE

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(IN FEET)
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2023-186

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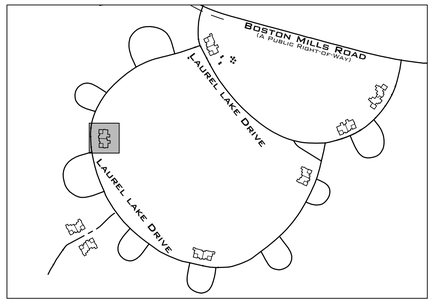

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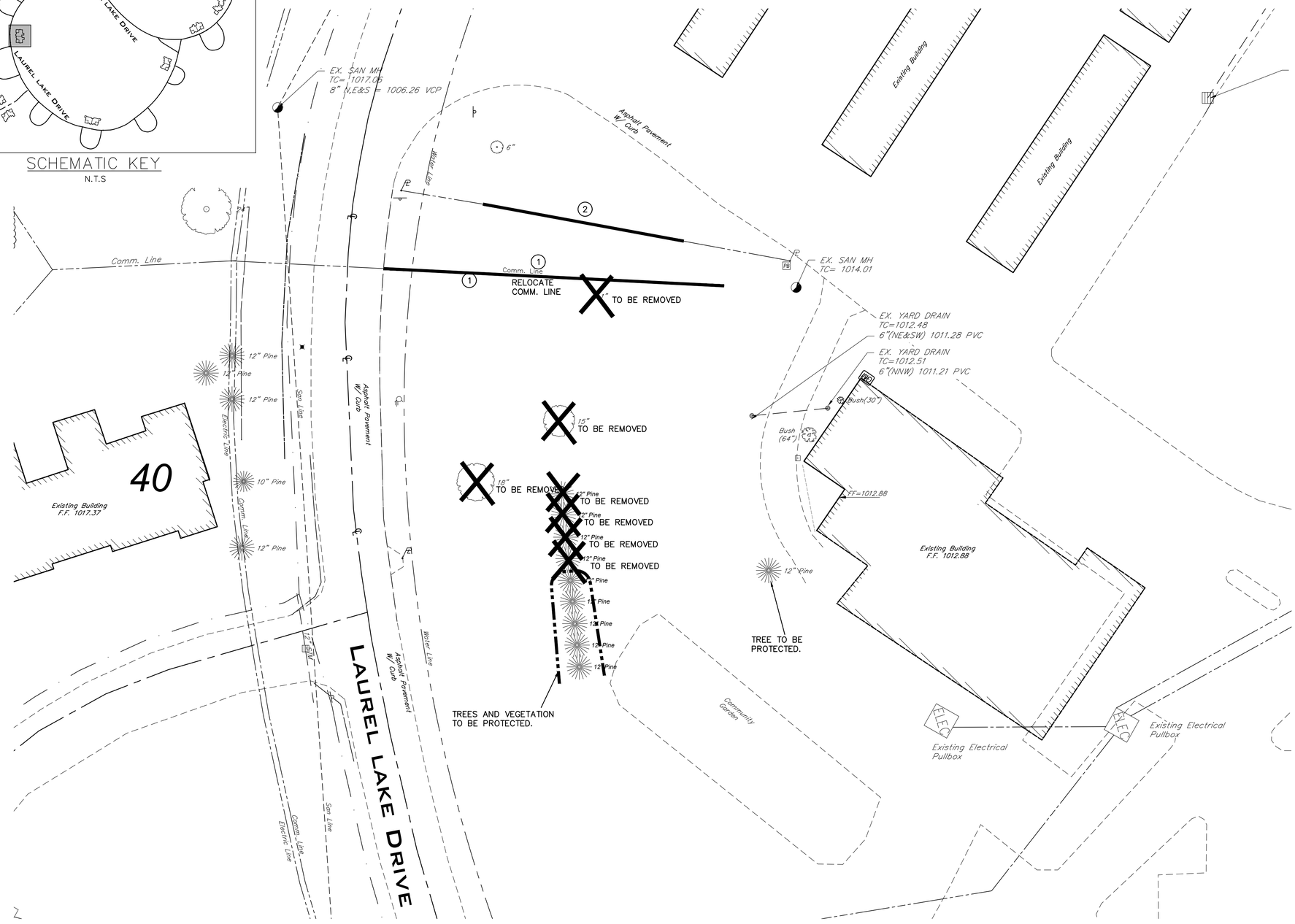

GENERAL SITE DEMOLITION NOTES:

CONTRACTOR SHALL COMPLETELY CLEAR SITE WITH REGARDS TO PROJECT LIMITS. REMOVAL SHALL INCLUDE BUT NOT LIMITED TO ALL PAVEMENTS, SIDEWALKS, CURBS, POLES, SIGNS, UTILITIES, FENCES, TREES, LANDSCAPING AND ALL APPURTENANCES.

CONTRACTOR SHALL BE RESPONSIBLE TO OBTAIN ALL PERMITS NECESSARY FOR SITE DEMOLITION AND SHALL BE RESPONSIBLE FOR ALL FEES.

CONTRACTOR SHALL CALL THE OHIO UTILITIES PROTECTION SERVICE (OUPS) A MINIMUM OF 48 HOURS BEFORE ANY DEMOLITION WORK.

CONTRACTOR IS RESPONSIBLE TO COORDINATE ALL UTILITY DEMOLITION OR RELOCATION WORK WITH THE APPROPRIATE UTILITIES PRIOR TO DEMOLITION.

SITE DEMOLITION LEGEND:

X — TREE TO BE REMOVED

WOODED AREA TO BE REMOVED.

SITE DEMOLITION PLAN KEYNOTES:

1. CONTRACTOR TO COORDINATE WITH LOCAL UTILITY COMPANIES TO RELOCATE COMM. LINE.
2. EXISTING ELECTRIC LINE TO BE RELOCATED. CONTRACTOR SHALL COORDINATE WITH LOCAL UTILITY COMPANIES PRIOR TO CONSTRUCTION.

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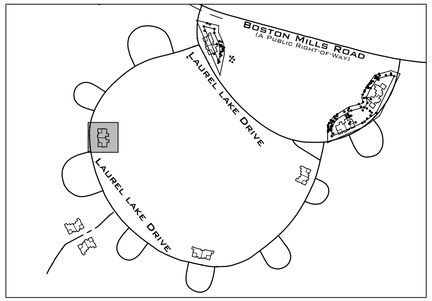
C5.01

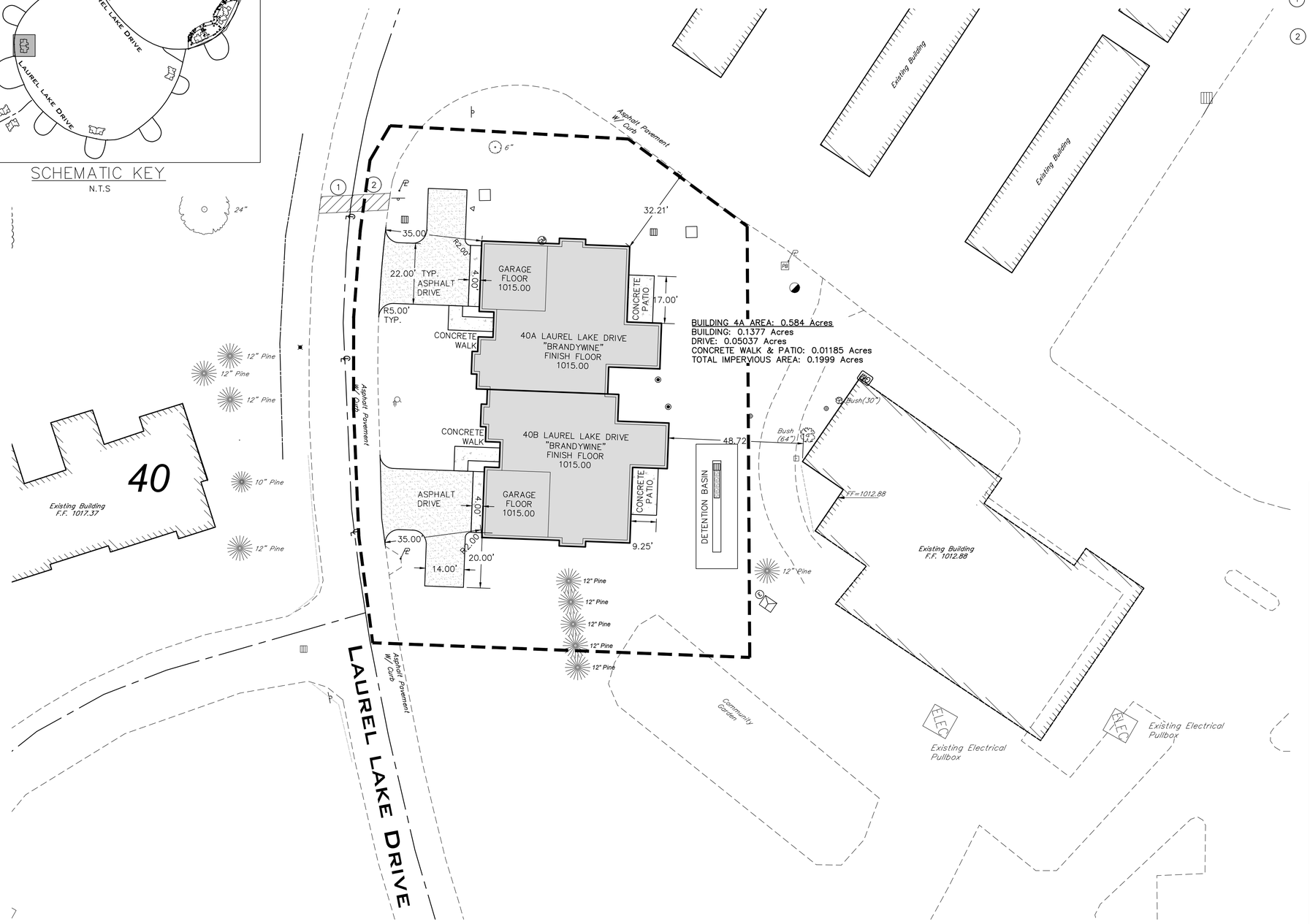


SCHEMATIC KEY

N.T.S

GENERAL SITE PLAN NOTES:

1. CONTRACTOR SHALL PROVIDE A CLEAN SMOOTH EDGE AND ENSURE THE INTEGRITY OF THE ASPHALT PAVEMENT TO REMAIN.
2. CONTRACTOR SHALL REPAIR PAVEMENT AFTER NEW UTILITY CONNECTIONS ARE INSTALLED. SEE DETAIL SHEET C6.01.



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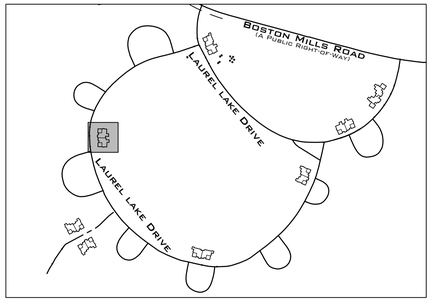
C5.02



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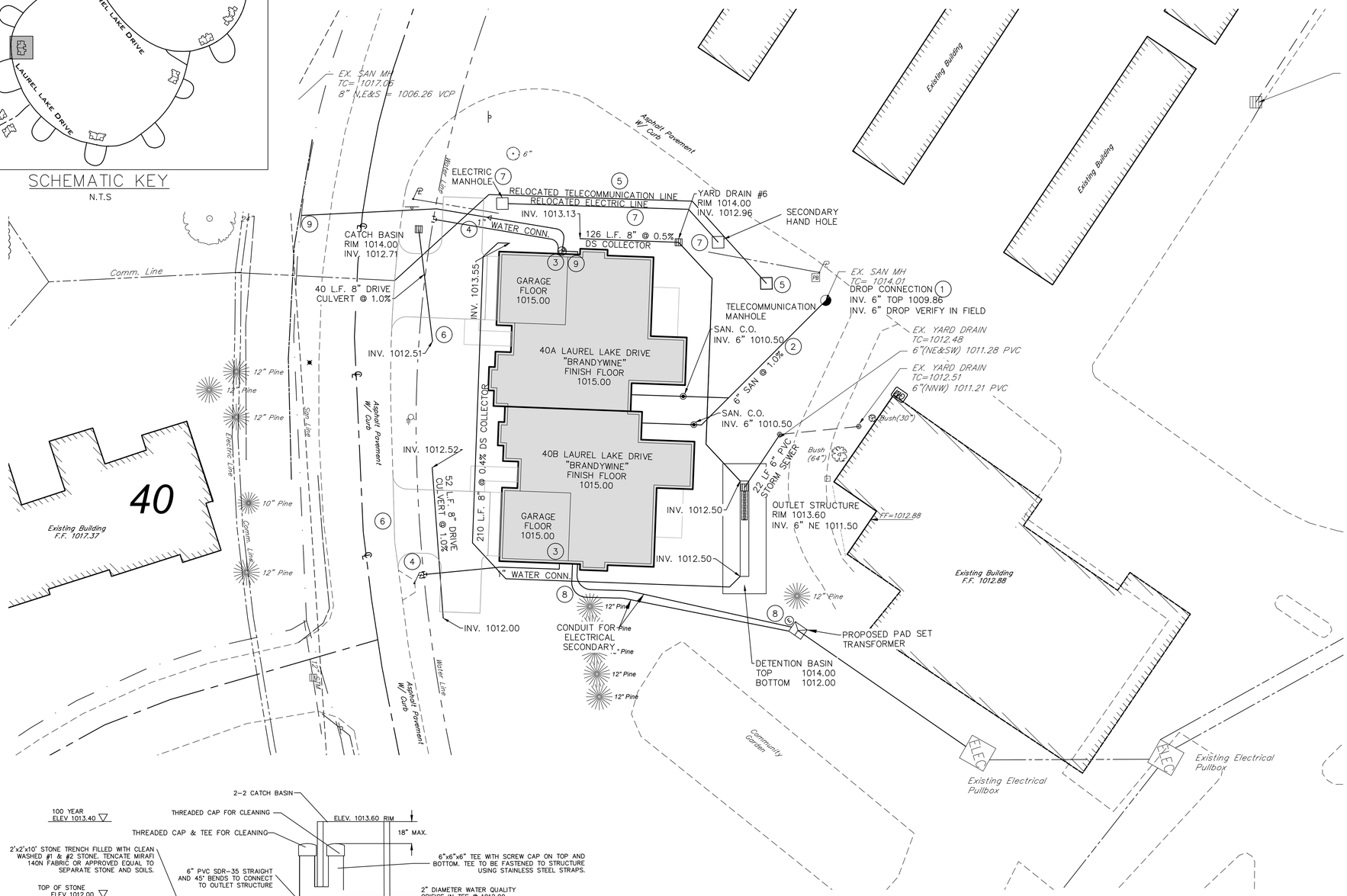
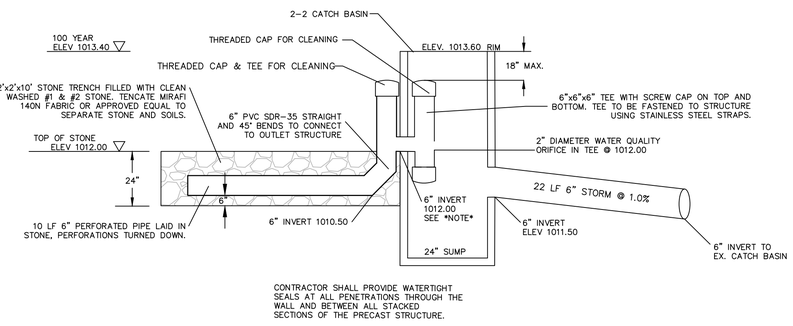


UTILITY PLAN NOTES:

1. 6" SANITARY CONNECTION WITH INTERNAL DROP CONNECTION. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL VERIFY EXISTING SEWER INVERT ELEVATION AND NOTIFY ENGINEER FOR DROP CONNECTION INVERT.
2. 6" SANITARY CONNECTION AT 1.0% SLOPE
3. 1" WATER CONNECTION. SEE DETAIL SHEET C6.03.
4. 1" SADDLE CONNECTION TO MAIN. SEE DETAIL SHEET C6.03.
5. COMMUNICATION LINE IS TO BE RELOCATED AROUND PROPOSED BUILDING. CONTRACTOR IS TO COORDINATE WITH LOCAL UTILITY COMPANIES.
6. 8" PVC DRIVE CULVERT. SEE SHEET C6.02 FOR DETAILS.
7. RELOCATED ELECTRICAL CONDUIT. CONTRACTOR SHALL COORDINATE WITH FIRST ENERGY PRIOR TO CONSTRUCTION.
8. PROPOSED ELECTRICAL SERVICE. SEE MEP PLANS SHEET ME1.03 FOR DETAILS.
9. PROPOSED GAS SERVICE. SEE MEP PLANS SHEET ME1.03 FOR DETAILS.



CONTRACTOR SHALL PROVIDE WATERTIGHT SEALS AT ALL PENETRATIONS THROUGH THE WALL AND BETWEEN ALL STACKED SECTIONS OF THE PRECAST STRUCTURE.

2-2 OUTLET STRUCTURE

N.T.S.

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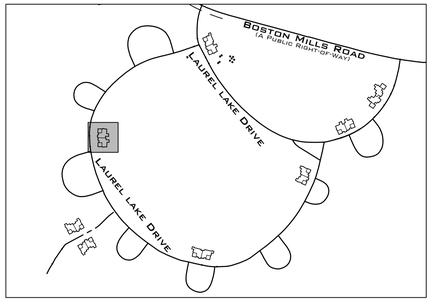

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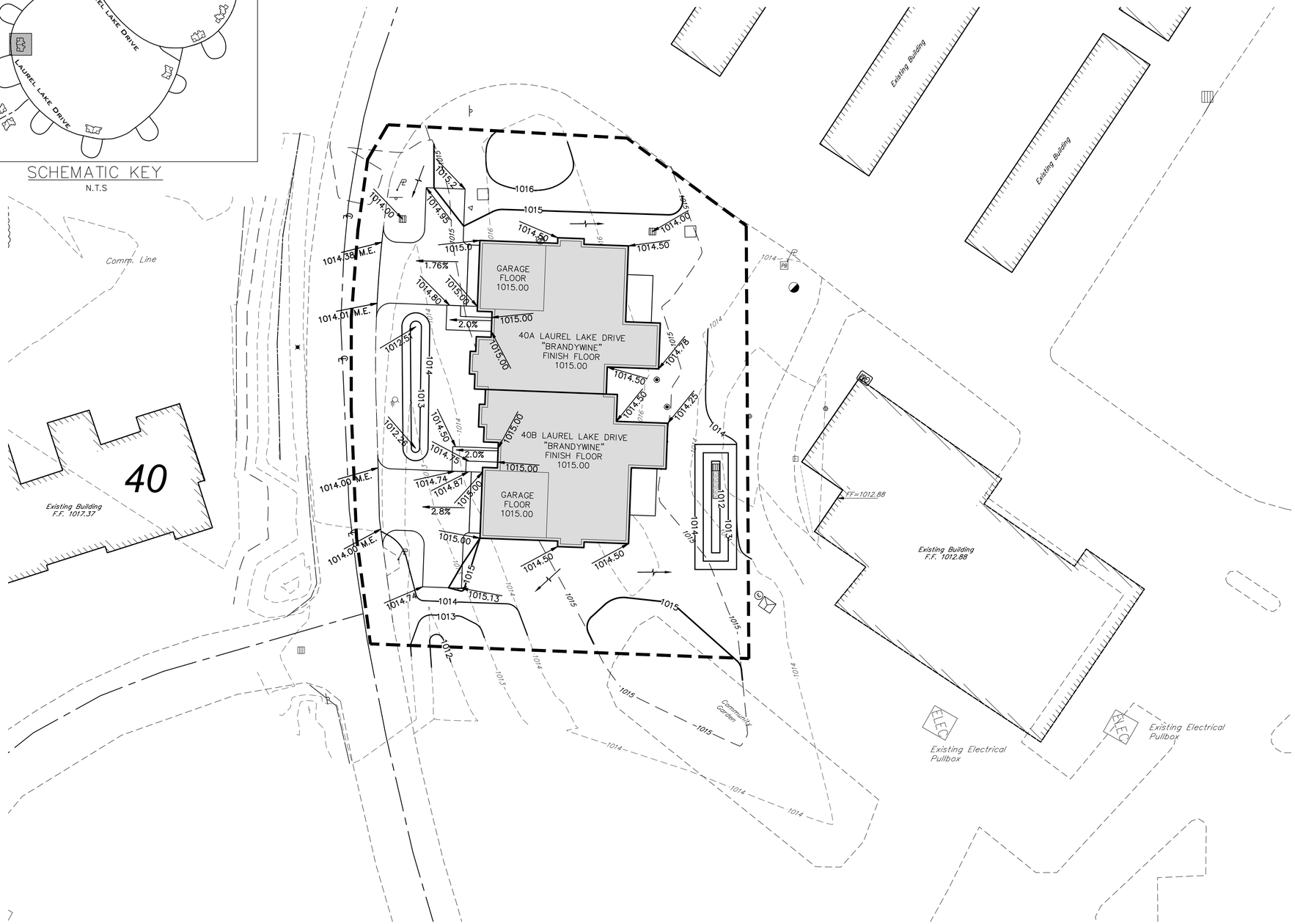

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LAND SURVEYING - ENGINEERING - DESIGN
3800 LAKESIDE AVENUE, SUITE 100
CLEVELAND - OHIO - 44114
PHONE: (216) 491-2000 FAX: (216) 491-9640
WWW.RIVERSTONESURVEY.COM

2023-186

PLAN REVISIONS:
5/12/2025
TREE INVENTORY

PAGE REVISIONS:

ISSUED FOR:
PC APPLICAITON
3/17/25
NOT FOR CONSTRUCTION

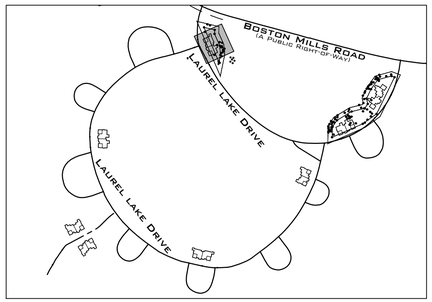
LAUREL LAKE VILLA
200 LAUREL LAKE DRIVE

GRADING PLAN - BUILDING 4

Ohio Utilities Protection Service
Call 811 before you dig

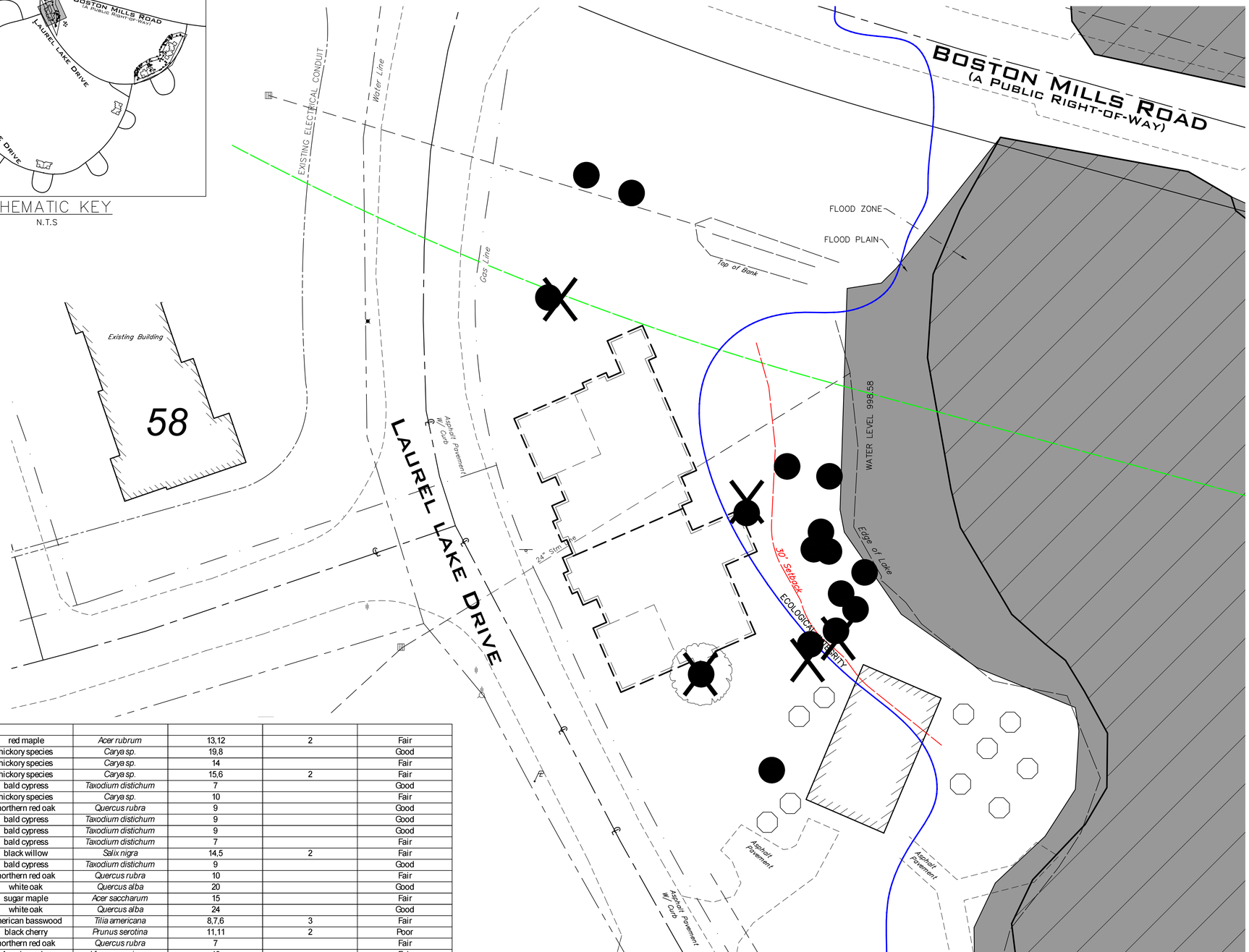
OGPUPS
Ohio Oil & Gas Producers Underground Protection Service
Call (614) 715-2984 or 811

C5.04



SCHEMATIC KEY

N.T.S



1	red maple	*Acer rubrum*	13,12	2	Fair
2	hickory species	*Carya sp.*	19,8		Good
3	hickory species	*Carya sp.*	14		Fair
4	hickory species	*Carya sp.*	15,6	2	Fair
5	bald cypress	*Taxodium distichum*	7		Good
6	hickory species	*Carya sp.*	10		Fair
7	northern red oak	*Quercus rubra*	9		Good
8	bald cypress	*Taxodium distichum*	9		Good
9	bald cypress	*Taxodium distichum*	9		Good
10	bald cypress	*Taxodium distichum*	7		Fair
11	black willow	*Salix nigra*	14,5	2	Fair
12	bald cypress	*Taxodium distichum*	9		Good
13	northern red oak	*Quercus rubra*	10		Fair
14	white oak	*Quercus alba*	20		Good
15	sugar maple	*Acer saccharum*	15		Fair
16	white oak	*Quercus alba*	24		Good
17	American basswood	*Tilia americana*	8,7,6	3	Fair
18	black cherry	*Prunus serotina*	11,11	2	Poor
19	northern red oak	*Quercus rubra*	7		Fair
20	American elm	*Ulmus americana*	10		Fair
21	northern red oak	*Quercus rubra*	15		Poor
22	American elm	*Ulmus americana*	6		Fair
23	American elm	*Ulmus americana*	15		Fair
24	red maple	*Acer rubrum*	6,9,8,7	4	Fair
25	black cherry	*Prunus serotina*	12		Poor
26	silver maple	*Acer saccharinum*	18		Fair
27	American elm	*Ulmus americana*	6		Fair
28	American basswood	*Tilia americana*	12		Fair
29	red maple	*Acer rubrum*	9		Fair
30	black cherry	*Prunus serotina*	10		Fair

GENERAL SITE DEMOLITION NOTES:

CONTRACTOR SHALL COMPLETELY CLEAR SITE WITH REGARDS TO PROJECT LIMITS. REMOVAL SHALL INCLUDE BUT NOT LIMITED TO ALL PAVEMENTS, SIDEWALKS, CURBS, POLES, SIGNS, UTILITIES, FENCES, TREES, LANDSCAPING AND ALL APPURTENANCES.

CONTRACTOR SHALL BE RESPONSIBLE TO OBTAIN ALL PERMITS NECESSARY FOR SITE DEMOLITION AND SHALL BE RESPONSIBLE FOR ALL FEES.

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CONTRACTOR IS RESPONSIBLE TO COORDINATE ALL UTILITY DEMOLITION OR RELOCATION WORK WITH THE APPROPRIATE UTILITIES PRIOR TO DEMOLITION

SITE DEMOLITION LEGEND:

X — TREE TO BE REMOVED

WOODED AREA TO BE REMOVED.

SITE DEMOLITION PLAN KEYNOTES:

1. EXISTING 24" STORM SEWER TO BE RELOCATED.

LEGEND

- M = Monument Box Found
- = Iron Pin or Pipe Found
- = 5/8" Iron Pin Set and Capped Riverstone Company Dudley PS6747
- = P.K. Nail
- = Gas Meter
- = Gas Valve
- = Utility Pole
- = Light Pole
- = Guy Anchor & Line
- = Telephone Box
- = Electric Box
- = Cable Box
- = Bollard
- = Cleanout / Test Tee
- Existing PROPOSED = Spot Elevation Tag
- = Hydrant
- = Water Service Valve
- = Water Valve
- = Water Meter
- = Reducer
- = Storm Manhole
- = Sanitary Manhole
- = Curb Inlet
- = Catch Basin
- = Property Line
- = Centerline

Ex. Parcel line
Original Sublot Line
Original Lot Line
Centerline
Property Line
Right-of-way Line — R/W
Easement Line
Railroad Tracks

	Existing	PROPOSED
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Gas Line		
Sanitary/Combination Sewer		
Storm Sewer		
Waterline		
Fence Line (Wooden)		
Fence Line (Chain-Link)		
Guardrail		

Ac.	Acres	L.C.A.	Limited Common Area
Adj.	Adjacent	L.F.	Lineal Feet
A.F.N.	Auditor's File Number	M.E.	Match Existing
Asp.	Asphalt	Meas./M.	Measured
B.F.	Basement Floor	MH	Manhole
BW	Bottom of Wall	Obs.	Observed
Calc./C.	Calculated	Pg.	Page
CB	Catch Basin	P.P.N.	Permanent Parcel Number
C.C.M.R	Cuyahoga County Map Records	Prop	Proposed
C.L.F.	Chain-link Fence	Rec./R.	Record
Clr.	Clears	R/W	Right-of-way
C.O.	Clean Out	San.	Sanitary
Comb.	Combination	S.F.	Square Feet
Conc.	Concrete	S/L	Sublot
Conn.	Connection	Stm.	Storm
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F.F.	Finished Floor	TW	Top of Wall
GUT	Gutter	Typ.	Typical
Inv	Invert	Vol.	Volume
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GRAPHIC SCALE

20 0 10 20 30

(IN FEET)
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SITE DEMOLITION PLAN - BUILDING 5

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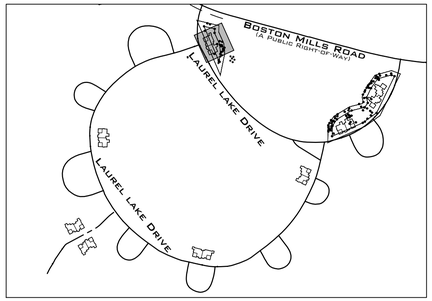
C6.01



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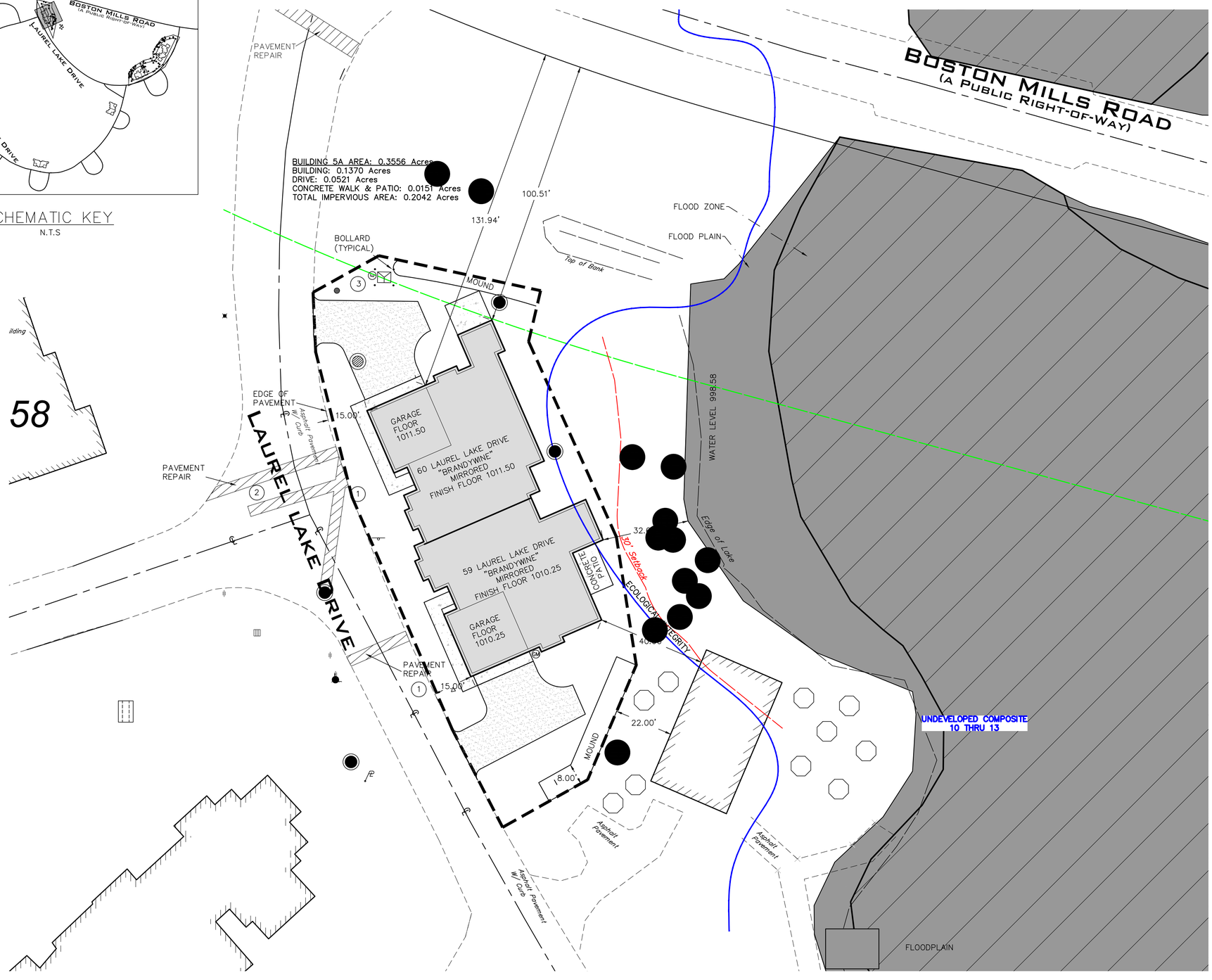

GENERAL SITE PLAN NOTES:

1. CONTRACTOR SHALL PROVIDE A CLEAN SMOOTH EDGE AND ENSURE THE INTEGRITY OF THE ASPHALT PAVEMENT TO REMAIN.
2. CONTRACTOR SHALL REPAIR PAVEMENT AFTER NEW UTILITY CONNECTIONS ARE INSTALLED. SEE DETAIL SHEET C6.01.
3. BOLLARDS TO BE PLACED AROUND TRANSFORMER

LEGEND

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FLOODWAY

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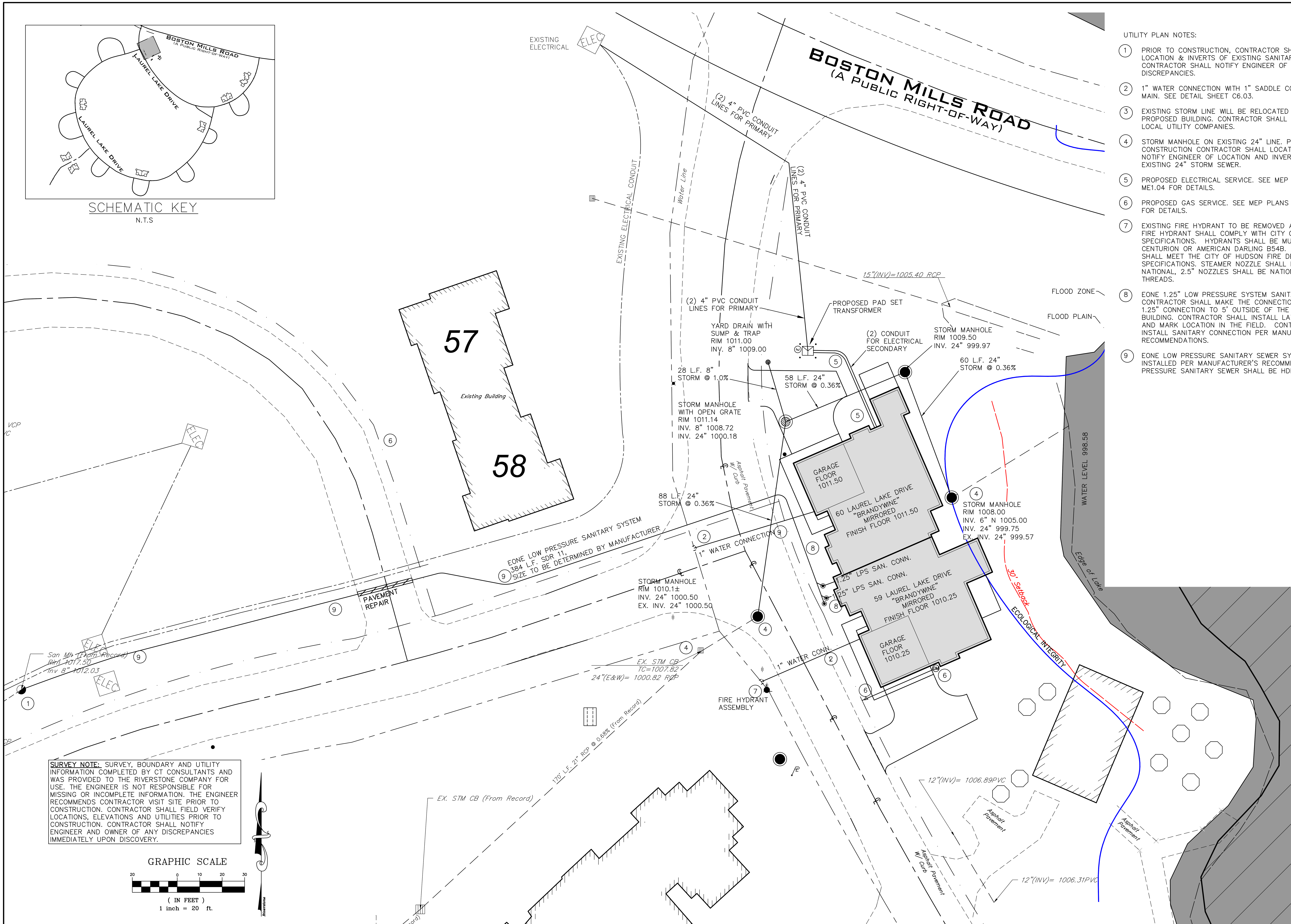
C6.02



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UTILITY PLAN NOTES:

1. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL VERIFY LOCATION & INVERTS OF EXISTING SANITARY MANHOLE. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES.
2. 1" WATER CONNECTION WITH 1" SADDLE CONNECTION TO MAIN. SEE DETAIL SHEET C6.03.
3. EXISTING STORM LINE WILL BE RELOCATED AROUND THE PROPOSED BUILDING. CONTRACTOR SHALL COORDINATE WITH LOCAL UTILITY COMPANIES.
4. STORM MANHOLE ON EXISTING 24" LINE. PRIOR TO CONSTRUCTION CONTRACTOR SHALL LOCATE, EXPOSE AND NOTIFY ENGINEER OF LOCATION AND INVERT ELEVATION OF EXISTING 24" STORM SEWER.
5. PROPOSED ELECTRICAL SERVICE. SEE MEP PLANS SHEET ME1.04 FOR DETAILS.
6. PROPOSED GAS SERVICE. SEE MEP PLANS SHEET ME1.04 FOR DETAILS.
7. EXISTING FIRE HYDRANT TO BE REMOVED AND REPLACED. FIRE HYDRANT SHALL COMPLY WITH CITY OF HUDSON SPECIFICATIONS. HYDRANTS SHALL BE MUELLER A423 CENTURION OR AMERICAN DARLING B54B. ALL THREADS SHALL MEET THE CITY OF HUDSON FIRE DEPARTMENT SPECIFICATIONS. STEAMER NOZZLE SHALL BE MACK NATIONAL, 2.5" NOZZLES SHALL BE NATIONAL STANDARD THREADS.
8. EONE 1.25" LOW PRESSURE SYSTEM SANITARY CONNECTION. CONTRACTOR SHALL MAKE THE CONNECTION AND EXTEND 1.25" CONNECTION TO 5' OUTSIDE OF THE PROPOSED BUILDING. CONTRACTOR SHALL INSTALL LATERAL ASSEMBLY AND MARK LOCATION IN THE FIELD. CONTRACTOR SHALL INSTALL SANITARY CONNECTION PER MANUFACTURER RECOMMENDATIONS.
9. EONE LOW PRESSURE SANITARY SEWER SYSTEM TO BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS. LOW PRESSURE SANITARY SEWER SHALL BE HDPE SDR 11.

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UTILITY PLAN - BUILDING 5

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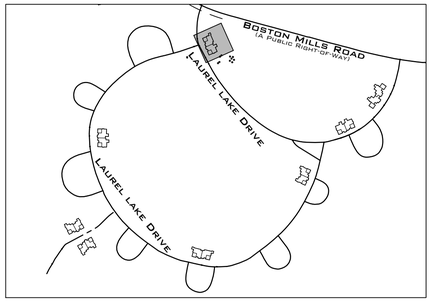
C6.03



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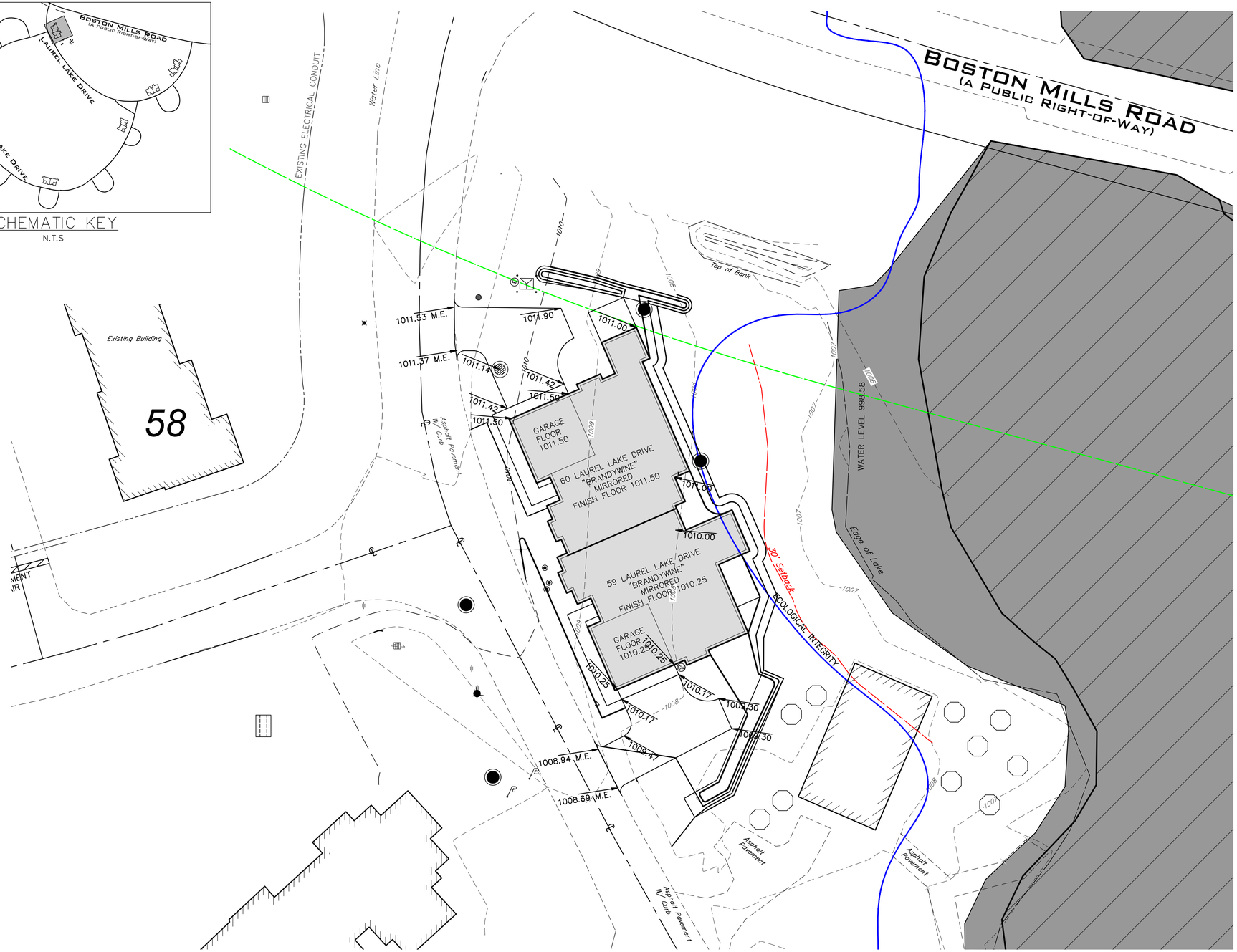

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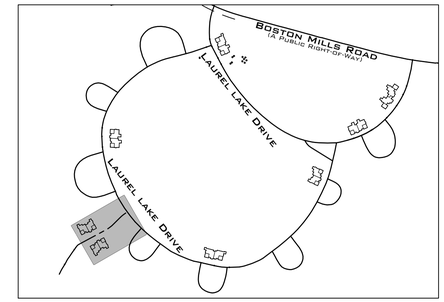

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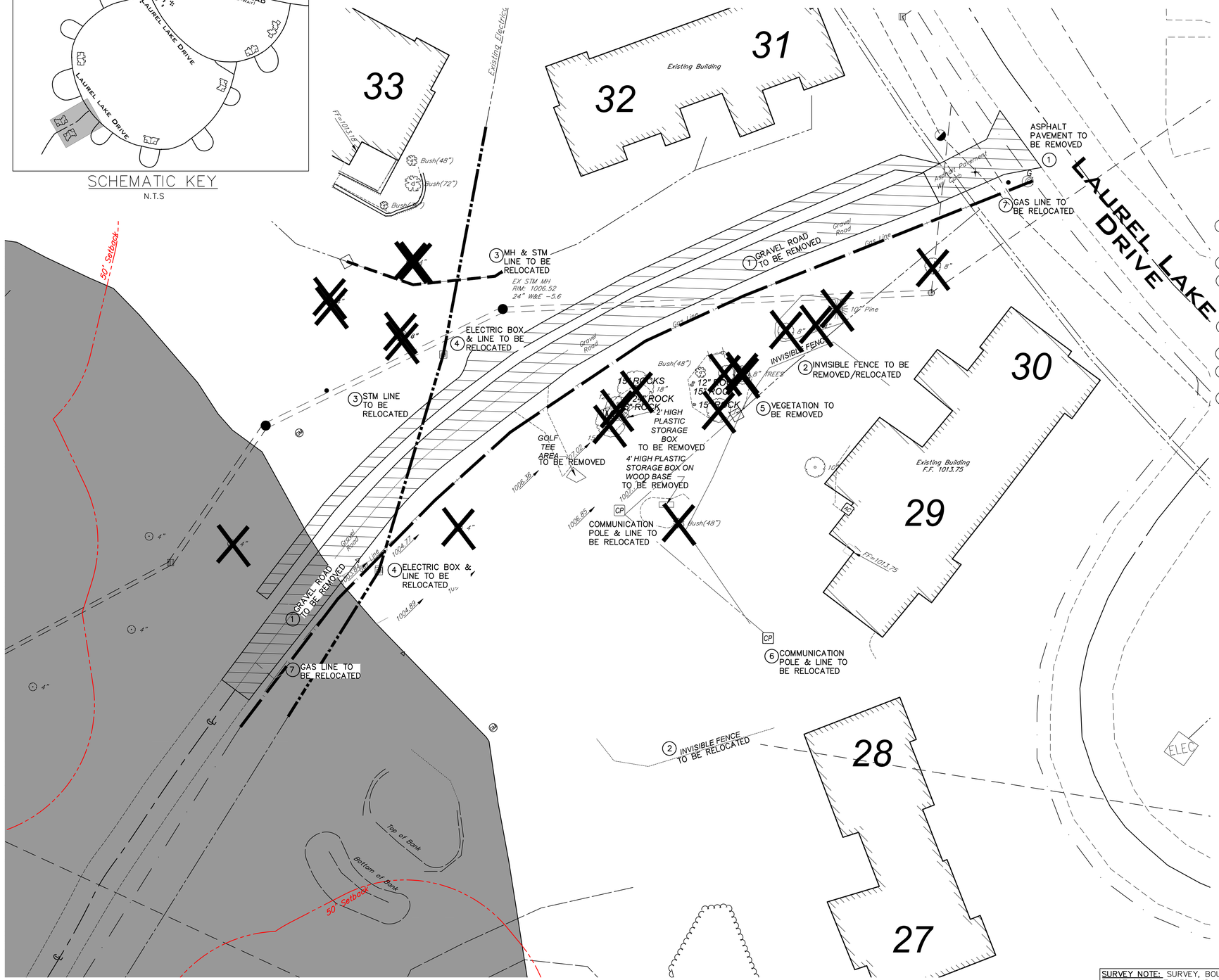

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CONTRACTOR IS RESPONSIBLE TO COORDINATE ALL UTILITY DEMOLITION WORK WITH THE APPROPRIATE UTILITIES PRIOR TO DEMOLITION. ALL UTILITY CONNECTIONS SHALL BE REMOVED ACCORDING TO UTILITY COMPANY REQUIREMENTS.

SITE DEMOLITION LEGEND:

TREE TO BE REMOVED

PAVEMENT TO BE REMOVED.

SITE DEMOLITION PLAN KEYNOTES:

1. ASPHALT PAVEMENT TO BE REMOVED. CONTRACTOR SHALL SAWCUT AND REMOVE ASPHALT PAVEMENT. CONTRACTOR SHALL PROVIDE A CLEAN SMOOTH EDGE OF PAVEMENT AND ENSURE THE INTEGRITY OF THE PAVEMENT TO REMAIN.
2. CONTRACTOR TO REMOVE INVISIBLE FENCE.
3. DURING DEMOLITION, THE CONTRACTOR SHALL LOCATE, EXPOSE, MARK, AND INSPECT EXISTING STORM LINES AND MANHOLES. CONTRACTOR WILL NOTIFY ENGINEER OF LOCATION, CONDITION, AND INVERT ELEVATIONS PRIOR TO CONSTRUCTION. CONTRACTOR TO COORDINATE RELOCATION WITH UTILITY COMPANIES PRIOR TO CONSTRUCTION.
4. EXISTING ELECTRIC BOX AND ELECTRIC LINES TO BE RELOCATED. CONTRACTOR SHALL COORDINATE WITH LOCAL UTILITY COMPANIES PRIOR TO CONSTRUCTION.
5. VEGETATION AREA TO BE CLEARED INCLUDING TREES, SHRUBS, BUSHES, AND ROCKS.
6. COMMUNICATION POLES & LINES TO BE RELOCATED. CONTRACTOR SHALL COORDINATE WITH LOCAL UTILITY COMPANIES.
7. GAS LINE TO BE RELOCATED. CONTRACTOR SHALL COORDINATE WITH LOCAL UTILITY COMPANIES.

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D.H.	Drill Hole	T.B.M.	Temporary Bench Mark
D.I.W.M.	Ductile Iron Water Main	TBR	To Be Removed
		T/C	Top of Curb
Elec	Electric	Tele	Telephone
Elev	Elevation	T.F.	Top Of Footer
Encr.	Encroaches	T.T.	Test Tee
Ex.	Existing	TW	Top of Wall
F.F.	Finished Floor	Typ.	Typical
GUT	Gutter	Vol.	Volume
Inv	Invert	Wat	Water

GRAPHIC SCALE
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(IN FEET)
1 inch = 20 ft.

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2023-186

PLAN REVISIONS:
5/12/2025
TREE INVENTORY

PAGE REVISIONS:

ISSUED FOR:
PC APPLICAITON
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LAUREL LAKE VILLA
200 LAUREL LAKE DRIVE

SITE DEMOLITION PLAN - BUILDING 8&9

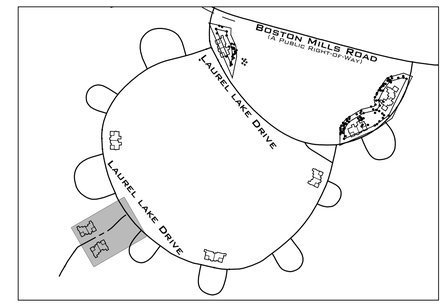
Ohio Utilities Protection Service
Call 811 before you dig

OGPUPS
Ohio Oil & Gas Producers Underground Protection Service
Call (614) 715-2984 or 811

C7.01

GENERAL SITE PLAN NOTES:

1. RETAINING WALL TO BE DESIGNED BY OTHERS. SEE GRADING PLAN SHEET C7.07 FOR ELEVATIONS
2. FIRE LANE. CURB TO BE PAINTED RED.
3. FIRE LANE SIGN. "FIRE LANE NO PARKING"
4. BOLLARDS TO BE PLACED AROUND TRANSFORMER.



SCHEMATIC KEY
N.T.S

LEGEND

- M = Monument Box Found
- = Iron Pin or Pipe Found
- = 5/8" Iron Pin Set and Capped Riverstone Company Dudley PS6747
- = P.K. Nail
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- = Reducer
- = Storm Manhole
- = Sanitary Manhole
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- = Catch Basin
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Ex. Parcel line	
Original Sublot Line	
Original Lot Line	
Centerline	
Property Line	
Right-of-way Line	R/W
Easement Line	
Railroad Tracks	
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C.C.M.R	Cuyahoga County Map Records	Prop	Proposed
C.L.F.	Chain-link Fence	Rec./R.	Record
Clr.	Clears	R/W	Right-of-way
C.O.	Clean Out	San.	Sanitary
Comb.	Combination	S.F.	Square Feet
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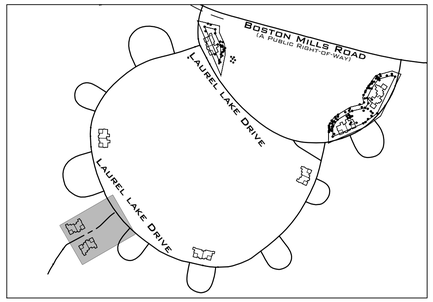
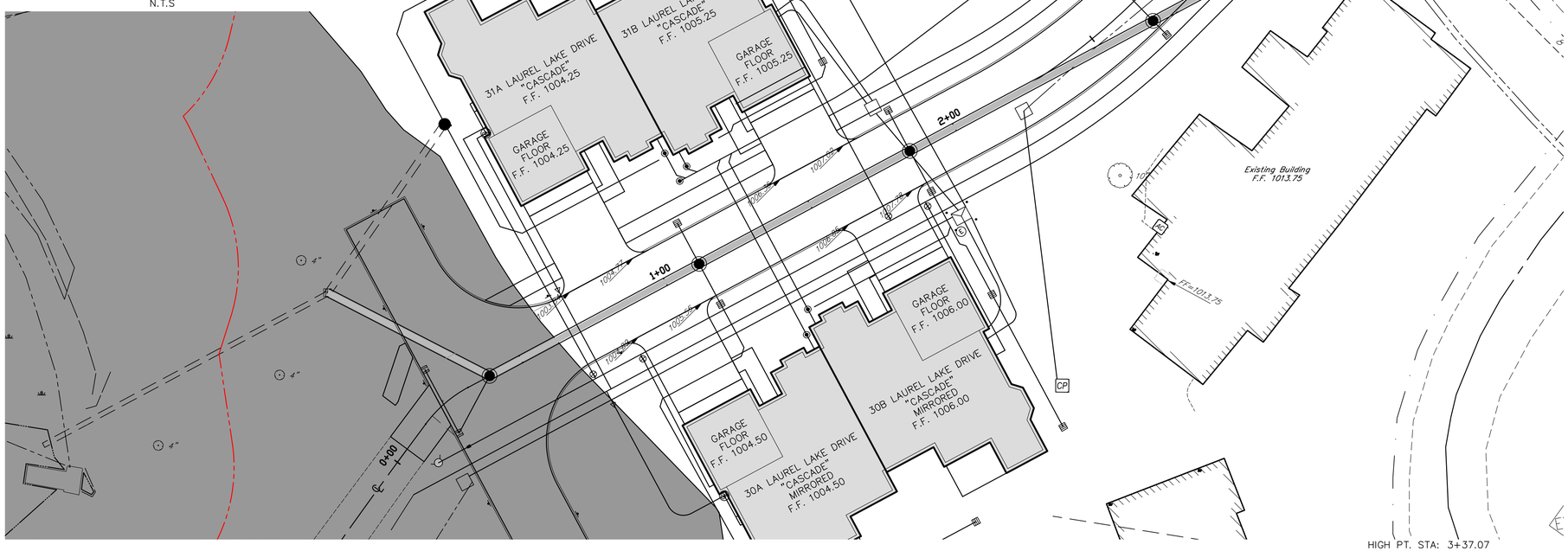
C7.02



SCHEMATIC KEY

N.T.S



STM MH 1
RIM 1002.08
INV 30" NW 997.74
INV 30" NE 997.74
INV 12" N 997.74
INV 12" S 997.74

STM CB 2
RIM 1001.40
INV 12" S 997.87

STM CB 3
RIM 1001.36
INV 12" N 997.88

STM MH 4
RIM 1004.43
INV 30" NW 998.57
INV 30" NE 998.57
INV 12" N 1000.01
INV 12" S 1000.01

STM CB 5
RIM 1004.15
INV 12" S 1000.15

STM CB 6
RIM 1004.15
INV 12" N 1000.15

STM MH 7
RIM 1005.92
INV 30" NW 999.30
INV 30" NE 999.30
INV 12" N 1000.56
INV 12" S 1000.54

STM CB 8
RIM 1004.70
INV 12" S 1000.70

STM CB 9
RIM 1004.70
INV 12" N 1000.70

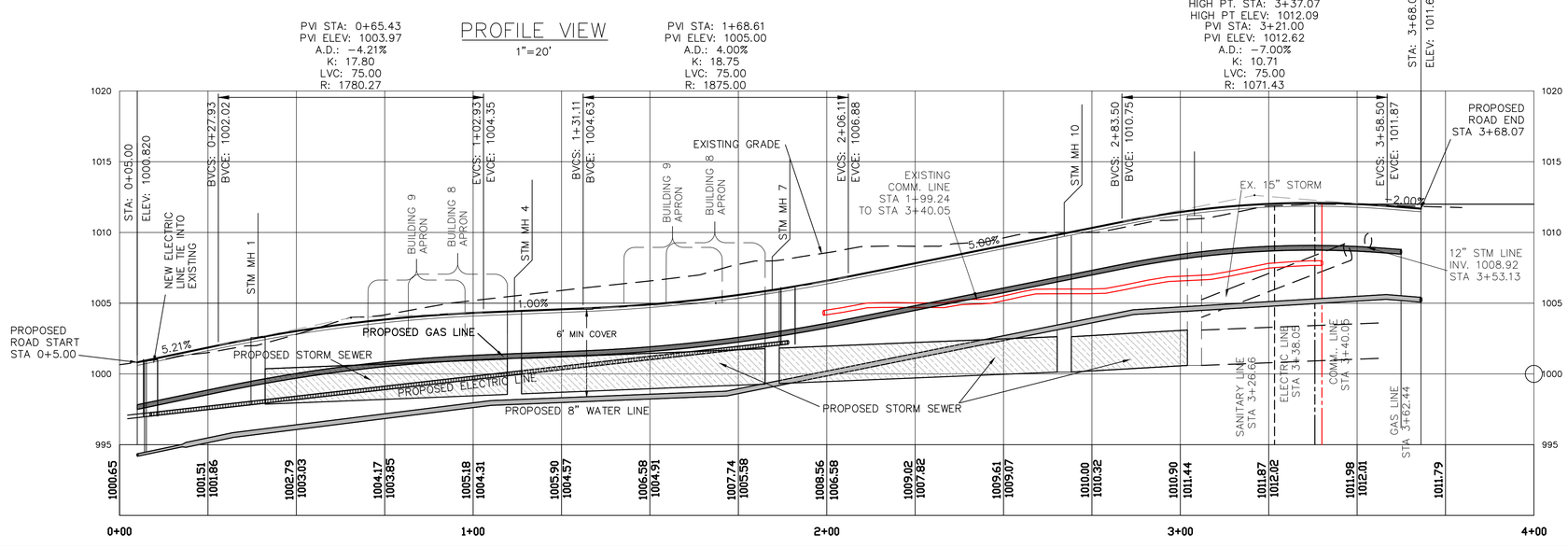
STM MH 10
RIM 1009.76
INV 30" NW 1000.15
INV 30" NE 1000.15
INV 12" N 1004.49
INV 12" S 1004.58

STM CB 11
RIM 1008.71
INV 12" S 1004.71

STM CB 12
RIM 1008.64
INV 12" N 1004.64

PROFILE VIEW

1"=20'



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Laurel Lake Villa
200 Laurel Lake Drive

Plan & Profile View - Building 8&9

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C7.03

UTILITY PLAN NOTES:

1. EONE 1.25" LOW PRESSURE SYSTEM SANITARY CONNECTION. CONTRACTOR SHALL MAKE THE CONNECTION AND EXTEND 1.25" CONNECTION TO 5' OUTSIDE OF THE PROPOSED BUILDING. CONTRACTOR SHALL INSTALL LATERAL ASSEMBLY AND MARK LOCATION IN THE FIELD. CONTRACTOR SHALL INSTALL SANITARY CONNECTION PER MANUFACTURER RECOMMENDATIONS.
2. EONE LOW PRESSURE SANITARY SEWER SYSTEM TO BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS. LOW PRESSURE SANITARY SEWER SHALL BE HDPE SDR 11.
3. 1" WATER CONNECTION TO BUILDING. 1" SADDLE CONNECTION TO MAIN.
4. CONTRACTOR SHALL DEFLECT 8" WATERLINE AS NEEDED WITHIN MANUFACTURER'S RECOMMENDATION TO OBTAIN A 216' RADIUS.
5. PROPOSED ELECTRICAL SERVICE. SEE MEP PLANS SHEET ME1.05 FOR DETAILS.
6. PROPOSED GAS SERVICE. SEE MEP PLANS SHEET ME1.05 FOR DETAILS.
7. RELOCATED ELECTRICAL CONDUIT. CONTRACTOR SHALL COORDINATE WITH HUDSON PUBLIC POWER PRIOR TO CONSTRUCTION.
8. RELOCATED TELECOMMUNICATIONS CONDUIT. CONTRACTOR SHALL COORDINATE WITH TELECOMMUNICATIONS PROVIDER PRIOR TO CONSTRUCTION.
9. PROPOSED FIRE HYDRANTS SHALL COMPLY WITH CITY OF HUDSON SPECIFICATIONS. HYDRANTS SHALL BE MUELLER A423 CENTURION OR AMERICAN DARLING B54B. ALL THREADS SHALL MEET THE CITY OF HUDSON FIRE DEPARTMENT SPECIFICATIONS. STEAMER NOZZLE SHALL BE MACK NATIONAL, 2.5" NOZZLES SHALL BE NATIONAL STANDARD THREADS.

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Calc./C.	Calculated	Pg.	Page
CB	Catch Basin	P.P.N.	Permanent Parcel Number
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UTILITY PLAN - BUILDING 8&9

Ohio Utilities Protection Service
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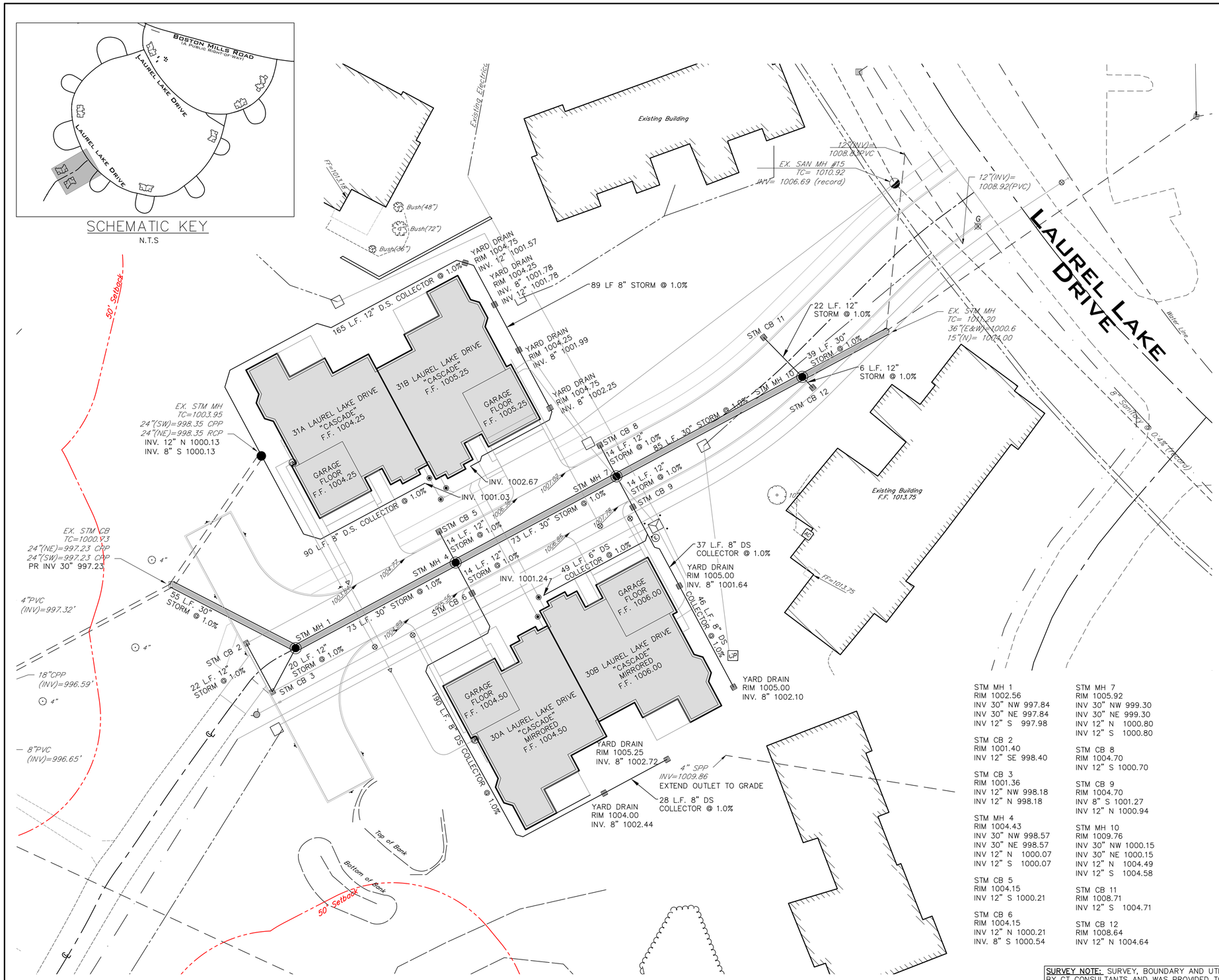
OGPUPS

C7.04



STM MH 1
RIM 1002.56
INV 30" NW 997.84
INV 30" NE 997.84
INV 12" S 997.98

STM CB 2
RIM 1001.40
INV 12" SE 998.40

STM CB 3
RIM 1001.36
INV 12" NW 998.18
INV 12" N 998.18

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RIM 1004.43
INV 30" NW 998.57
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INV 12" S 1000.21

STM CB 6
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INV 12" N 1000.21
INV. 8" S 1000.54

STM MH 7
RIM 1005.92
INV 30" NW 999.30
INV 30" NE 999.30
INV 12" N 1000.80
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Laurel Lake Villa
200 Laurel Lake Drive

Stormwater Plan - Building 8&9

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GRADING PLAN - BUILDING 8&9

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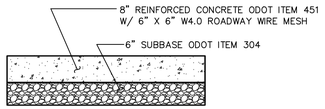
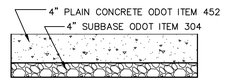
C7.06



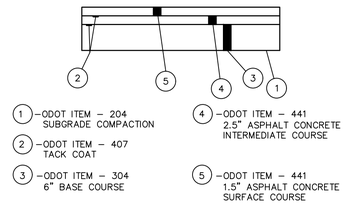
8" REINFORCED CONCRETE DRIVE AND APRON

N.T.S.



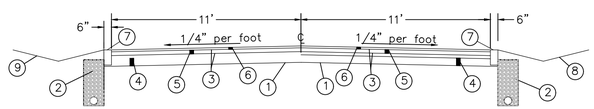
CONCRETE SIDEWALK REPLACEMENT/NEW

N.T.S.



TYPICAL ASPHALT DRIVEWAY SECTION

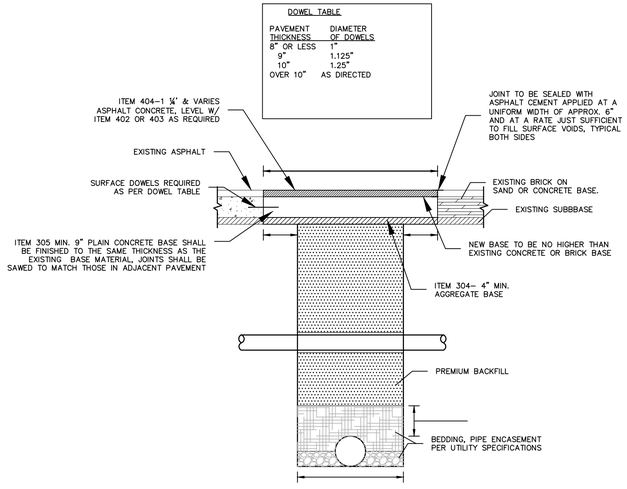
N.T.S.

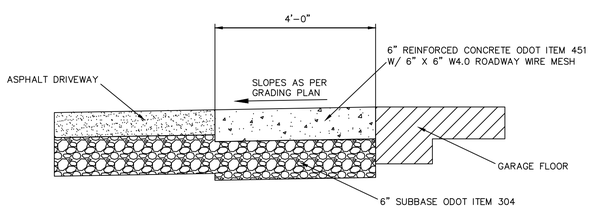


1. ODOT ITEM – 204 SUBGRADE COMPACTION
2. ODOT ITEM – 605 6" PERFERATED PVC UNDERDRAIN 707.41
3. ODOT ITEM 407 TACK COAT
4. ODOT ITEM 304 8" AGGREGATE BASE
4. ODOT ITEM 304 8" AGGREGATE BASE
5. ODOT ITEM – 402 3 1/2" ASPHALT INTERMEDIATE COURSE
6. ODOT ITEM – 404 1 1/2" ASPHALT SURFACE COURSE
7. ODOT ITEM – 609 FLUSH CONCRETE CURB
8. ODOT ITEM – 659 SEEDING AND MULCHING ITEM 653 3" TOPSOIL FURNISHED AND PLACED

TYPICAL ASPHALT SECTION WITH FLUSH CONCRETE CURB

N.T.S.





CONCRETE APRON AT GARAGE

N.T.S.

PROOF ROLL

A MINIMUM OF TWO (2) PROOF ROLLINGS WILL BE REQUIRED AS DIRECTED BY THE ENGINEER BEFORE PAVING. THE FIRST PROOF ROLLING SHALL BE PERFORMED AFTER THE INSTALLATION OF ALL UNDERGROUND IMPROVEMENTS AND ROUGH GRADING HAS BEEN COMPLETED. AFTER FINE GRADING, JUST PRIOR TO PAVING, THE SUBGRADE SHALL BE PROOF ROLLED AGAIN. A PROOF ROLLING SHALL CONSIST OF TRAVELING THE ENTIRE AREA OF THE PREPARED SUBGRADE WITH A FULLY LOADED TANDEM AXLE DUMP TRUCK PROVIDED BY THE CONTRACTOR. MOISTURE CONTENT ADJUSTMENT METHODS USED AT THE TIME OF PROOF ROLLING SHALL CONFORM TO SECTION 203.11 OF THE OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS. WHERE THIS OPERATION SHOWS THE SUBGRADE TO BE UNSTABLE OR TO HAVE NON-UNIFORM STABILITY, THE CONTRACTOR SHALL CORRECT THE UNSTABLE AREAS AS DIRECTED BY THE ENGINEER. THE MINIMUM EQUIPMENT SHALL CONSIST OF A SINGLE UNIT, TANDEM AXLE DUMP TRUCK CAPABLE OF BEING LOADED TO 30,000 POUND AXLE LOAD, 60,000 POUND GVW. TIRE PRESSURE SHALL BE MAINTAINED AT 90 PSI OR AS SPECIFIED UNDER SECTION 203.14 OF ODOT SPECIFICATIONS. ANY AREA PERMITTING TIRES TO LEAVE A GROOVE OF ONE (1) INCH OR MORE SHALL BE UNACCEPTABLE FOR PAVING. ANY AREA PERMITTING THE TEST VEHICLE TIRES TO LEAVE A GROOVE OF ZERO (0) TO ONE-HALF (1/2) INCH DEEP SHALL BE ACCEPTABLE. ANY AREA PERMITTING THE TEST VEHICLE TIRES TO LEAVE A GROOVE OF ONE-HALF (1/2) INCH TO ONE (1) INCH DEEP SHALL BE AT THE ENGINEER'S DISCRETION.

GENERAL NOTES

1.) A PRE-CONSTRUCTION CONFERENCE SCHEDULED BY THE CONTRACTOR SHALL BE HELD PRIOR TO START OF ANY WORK. IN ADDITION, THE CONTRACTOR SHALL PROVIDE 48 HOURS NOTICE TO THE CITY ENGINEER PRIOR TO BEGINNING WORK TO ARRANGE FOR INSPECTION.
2.) ANY AND ALL CHANGES IN PLAN QUANTITIES OR MATERIALS SHALL BE APPROVED IN WRITING BY THE DEVELOPER PRIOR TO INCORPORATION IN THE WORK.
3.) EARTHWORK QUANTITIES:
   A) ALL STUMPS, TREES AND OTHER CONSTRUCTION DEBRIS SHALL BE DISPOSED OF BY THE CONTRACTOR OFF-SITE.
   B) THE CONTRACTOR SHALL PLACE AND COMPACT ALL SUITABLE FILL MATERIAL EXCAVATED DURING HIS CONSTRUCTION OPERATIONS WITHIN THE FILL AREAS DESIGNATED ON THE GRADING PLAN AND/OR AS DIRECTED BY THE DEVELOPER AND/OR HAULED OFF-SITE AT THE DEVELOPER'S DISCRETION.
   C) NO DISPOSAL SITE WITHIN THE PROJECT LIMITS SHALL BE UTILIZED.
4.) SEEDING AND MULCHING: SEDIMENT CONTROL SHALL BE ACCOMPLISHED BY SEEDING AND MULCHING IMMEDIATELY UPON COMPLETION OF EXCAVATION OR FILL AND FINISHED GRADING IN ACCORDANCE WITH ITEM 659 OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS OR AS DIRECTED BY THE ENGINEER.
5.) ALL TRENCHES IN PAVED AREAS SHALL BE BACKFILLED WITH GRANULAR MATERIALS FROM THE TOP OF THE TRENCH BEDDING. BACKFILL TO BE MECHANICALLY COMPACTED. SLAG NOT ALLOWED.
6.) ROOF DRAINS, FOUNDATION DRAINS AND OTHER CLEAN WATER CONNECTIONS TO THE SANITARY SYSTEM PROHIBITED.
7.) PRIOR TO CONNECTION CONSTRUCTION, CONTRACTOR TO VERIFY LOCATIONS, SIZE AND DEPTH OF EXISTING SEWER & WATER TIE-INS.
8.) THE UTILITY OWNERSHIPS ARE AS FOLLOWS:

OHIO UTILITIES PROTECTION SERVICE
106 WEST RYEN – ROOM 427
YOUNGSTOWN, OHIO 44051
PH: (800) 362-2764

DOMINION ENERGY
320 SPRINGSIDE DRIVE, SUITE 320
AKRON, OHIO 44333
PH: (877) 542-2630

CITY OF HUDSON DEPARTMENT OF PUBLIC WORKS
1769 GEORGETOWN ROAD
HUDSON, OHIO 44236
PH: (330) 342-1750

SUMMIT COUNTY DEPARTMENT OF SANITARY SEWER SERVICES
1180 S MAIN STREET SUITE 201
AKRON, OHIO 44301
PH: (330) 926-2400

SUMMIT PETROLEUM INC.
9345 RAVENNA ROAD
TWINSBURG, OHIO 44087
PH: (330) 487-5494

CENTURYLINK
4000 CHESTER AVENUE
CLEVELAND, OHIO 44102
PH: (216) 906-6284

MCI (VERIZON)
120 RAVINE STREET
AKRON, OHIO 44303
PH: (330) 329-5495

THE LOCATION OF UNDERGROUND UTILITIES ARE PLOTTED ACCORDING TO THE INFORMATION FURNISHED BY THE UTILITIES CONCERNED AND THE ENGINEER DOES NOT GUARANTEE THE ACCURACY THEREOF.

9.) ALL WORK CONTEMPLATED UNDER THIS CONTRACT SHALL COMPLY WITH U.S. DEPARTMENT OF LABOR OCCUPATIONAL SAFETY AND HEALTH ACT, THE STANDARD SPECIFICATIONS OF THE CITY OF HUDSON AND THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS
LATEST EDITION, EXCEPT WHERE SPECIFICALLY SPECIFIED IN THESE PLANS.
10.) IT IS THE OBLIGATION AND RESPONSIBILITY OF THE CONTRACTOR TO MAKE HIS OWN INVESTIGATION OF SUBSURFACE CONDITIONS PRIOR TO SUBMITTING HIS PROPOSAL.
11.) THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COST OF ALL MATERIAL TESTING AND ALL PERMITS REQUIRED FOR THIS PROJECT.
12.) THE LOCATION OF ALL EXISTING UNDERGROUND UTILITY FACILITIES ARE SHOWN ON THE PLANS FROM DATA AVAILABLE AT THE TIME OF THE FIELD SURVEY IN ACCORDANCE WITH SECTION 153.64 OF THE OHIO REVISED CODE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFICATION OF THE EXISTING UTILITY OWNERS AND UTILITY PROTECTION SERVICE LISTED ABOVE IN ACCORDANCE WITH SECTION 153.64 OF THE OHIO REVISED CODE AND AS OUTLINED IN PROJECT SPECIFICATIONS.
13.) ALL WORK CONTEMPLATED SHALL BE GOVERNED BY THE RULES, REGULATIONS AND SPECIFICATIONS OF THE CITY OF HUDSON AND AT ALL TIMES BE SUBJECT TO THEIR DIRECT SUPERVISION AND INSPECTION.
14.) ALL SANITARY SEWER CONNECTIONS SHALL BE 6" DIAMETER V.C.P. C-700 E.S. w/PREMIUM JOINTS (OR THERMOPLASTIC AS SPECIFIED) @ 1.0% MIN. (INCLUDING TEST TEE LOCATED AT R/W – SEE DETAIL).
15.) ALL EXISTING CONNECTIONS SHALL BE TESTED WITH DYE AND CAMERA BEFORE TYING IN FOR USE WITH PROPOSED LOTS.
16.) COLOR DVD VIDEO OF THE SANITARY AND STORM SEWERS (8" AND GREATER) SHALL BE GIVEN TO THE CITY OF HUDSON DIVISION OF WATER POLLUTION CONTROL.
17.) COST OF REMOVAL, FILLING, ABANDONING AND DISPOSAL OF EXISTING SEWERS & CONNECTIONS TO BE INCLUDED IN PRICES BID UNDER OTHER ITEMS (OF SPECIFICATIONS) AND NO ADDITIONAL COMPENSATION WILL BE MADE.
18.) TWO WAY TRAFFIC SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION BY THE CONTRACTOR.
19.) ALL SANITARY AND STORM MAIN LINE SEWERS & HOUSE CONNECTIONS SHALL HAVE PREMIUM JOINTS.
20.) FLEXIBLE GASKETS SHALL BE PROVIDED AT ALL SANITARY AND STORM MANHOLES.
21.) FOR CURB INLET MANHOLE, BRICK MAY BE USED TO FIT CASTING.

ENVIRON. IMPACT NOTES

1.) IF, DURING THE COURSE OF CONSTRUCTION, EVIDENCE OF ANY DEPOSIT OF HISTORICAL AND/OR ARCHAEOLOGICAL INTEREST IS FOUND, CEASE OPERATIONS AFFECTING THE FIND AND NOTIFY THE OHIO HISTORIC PRESERVATION OFFICE AT (614) 297-3470. NO FURTHER DISTURBANCE OF THE DEPOSITS SHALL OCCUR UNTIL THE CONTRACTOR HAS BEEN NOTIFIED BY THE OWNER THAT HE OR SHE MAY PROCEED. THE OWNER WILL ISSUE THE NOTICE TO PROCEED ONLY AFTER THE STATE OHIO OFFICIAL HAS SURVEYED THE FIND AND MADE SUCH A DETERMINATION.
2.) ACCESS FOR EMERGENCY VEHICLES MUST BE PROVIDED AT ALL TIMES.
3.) THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING LOCAL ACCESS TO ALL RESIDENCES AND BUSINESSES, AND TO PROVIDE WHATEVER TEMPORARY MATERIALS ARE NECESSARY TO PROVIDE A SAFE, ADEQUATE DRIVE SURFACE.
4.) NO MANHOLE OR SEWER EXCAVATION WILL BE LEFT OPEN AWAITING CONNECTION OR REMOVAL AT A LATER DATE BY THE CONTRACTOR'S FORCES, OR OTHERS, BUT SHALL BE TEMPORARILY BACKFILLED AND RESURFACED, IF APPLICABLE, WITH A TEMPORARY PAVEMENT PASSABLE TO TRAFFIC.
5.) NO MORE THAN 200 TO 300 FEET OF SEWER TRENCH SHALL REMAIN OPEN AT ONE TIME. MATERIALS EXCAVATED DURING TRENCHING SHALL BE PILED ON THE UPHILL SIDE OF THE TRENCH.
6.) STOCKPILED TOPSOIL AND FILL MATERIALS SHALL BE PROTECTED WITH EROSION CONTROL BARRIERS OR TEMPORARY SEEDING. EXCESS SOIL THAT IS STOCKPILED MUST BE EITHER REMOVED OR REGRADED WITHIN 15 DAYS OF THE COMPLETION OF CONSTRUCTION.
7.) IF TREE REMOVAL IS NECESSARY, TREES SHALL BE FELLED IN A MANNER THAT AVOIDS DAMAGE TO ADJACENT REMAINING TREES. WHERE ROOT DAMAGE CANNOT BE AVOIDED, PRUNING AND PAINTING AS APPROPRIATE TO COMPENSATE FOR DAMAGE WILL BE DONE BY AN AUTHORIZED ARBORIST.

STATE OF OHIO
PROFESSIONAL ENGINEER
For Planning Commission Not for Construction

RIVERSTONE
LAND SURVEYING - ENGINEERING - DESIGN
3800 LAKESIDE AVENUE SUITE 100
CLEVELAND - OHIO - 44114
PHONE: (216) 491-2000 FAX: (216) 491-9640
WWW.RIVERSTONESURVEY.COM

2023-186

Plan Revisions:
5/12/2025 Tree Inventory

Page Revisions:

Issued For:
PC Applicaiton
3/17/25
NOT FOR CONSTRUCTION

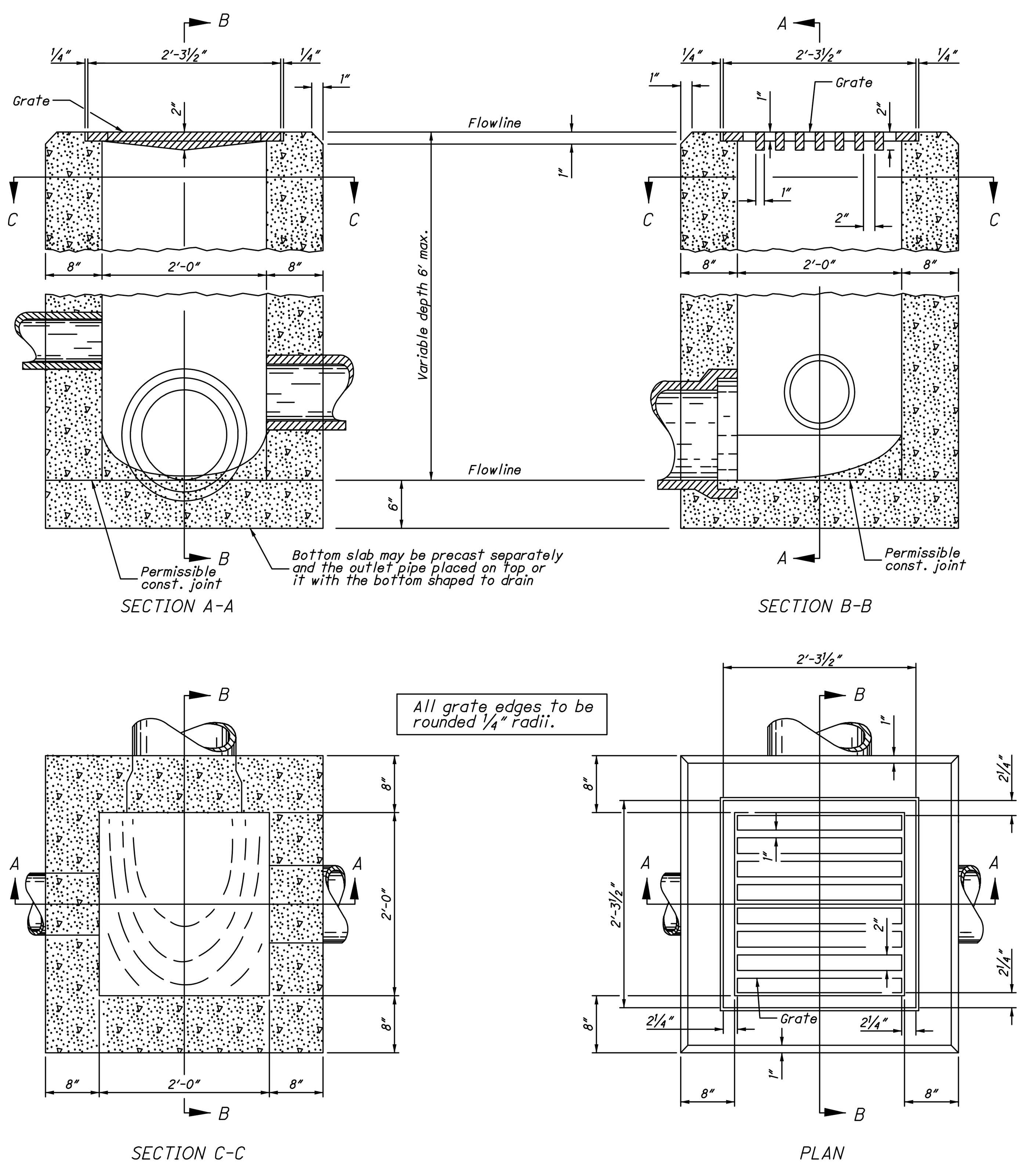
Laurel Lake Villa
200 Laurel Lake Drive

Notes & Details

Ohio Utilities Protection Service Call 811 before you dig

OGPUPS
Ohio Oil & Gas Producers Underground Protection Service
Call (614) 715-2984 or 811

C8.01



CATCH BASIN No. 2-2B

NOTES

CB-2-2B GRATE: Furnish a design essentially the same and equally as strong as the one shown (see Construction Information table), or meet the requirements of CMS 711.14. Provide grate openings and dimensions as shown here unless otherwise shown in the plans.

If necessary, bicycle safe grates will be specified in the plans. Furnish Neenah No. R-4859-S or EJ No. 5110M3 (00511043) grates or approved equals.

Place grate elevation 4" to 6" below normal ditch and return to normal 10' to 15' each side of inlet.

CB-2-2C FRAME & GRATE: Where the catch basin is specified for use in a parking lot, Furnish Neenah No. R-1878-A5G or EJ No. V-5622 (45622010) frame and V-5622 (45622030) grate or approved equals. If necessary, bicycle safe grates will be specified in the plans. Furnish Neenah No. R-3405 grate or EJ No. 5250M (00525031) grate or approved equals.

On cast-in-place and precast units, provide a level surface on the catch basin 4" below the plan grate elevation for setting the frame and grate assembly. Provide a concrete apron to encase and secure the frame of a width not less than the thickness of the catch basin walls that the frame was placed on or as shown in the plans. Slope apron to provide local depression.

GRATE TEXT: Cast the following text into the top of the grate:

"DRAINS TO WATERWAY" and "DUMP NO WASTE"

Print text in bold, capital letters at least 1/2" high. "WATERWAY" may be substituted with "STREAM", "RIVER", "LAKE", etc. Actual placement and logo may vary per manufacturer.

WALLS: Construct brick or cast-in-place walls with a nominal 8" thickness. Provide precast walls of at least 6" thick with sufficient reinforcing to permit shipping and handling without damage.

CONCRETE: Use 4000 psi compressive strength for cast-in-place concrete. Meet the requirements of CMS 706.13 for all precast concrete and mark with the catch basin number.

PRECAST BASE: If a precast base is used, set it deep enough so that the top can be placed on the base to provide the grate elevation specified in the plans. Do not use brick layers to adjust the top elevation.

LOCATION AND ELEVATION: When given on the plans, location and elevation are at the top center of the grate.

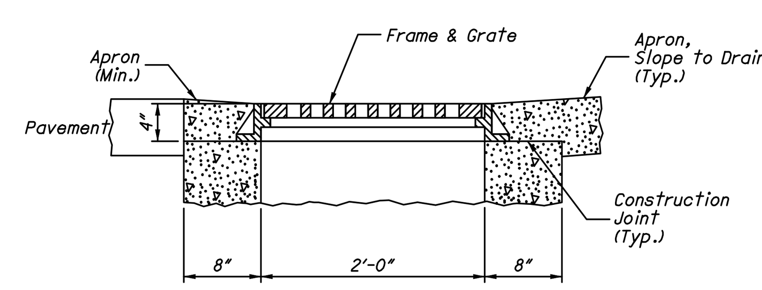
MINIMUM DEPTH: The minimum depth of CB No. 2-2B is the outside diameter (O.D.) of the outlet pipe plus 4". The minimum depth of CB No. 2-2C is the outside diameter (O.D.) of the outlet pipe plus 8".

OPENINGS: Ensure pipe openings are the O.D. of the pipe being supplied plus 2" when fabricated or field cut. Fill any voids per C&MS 611.

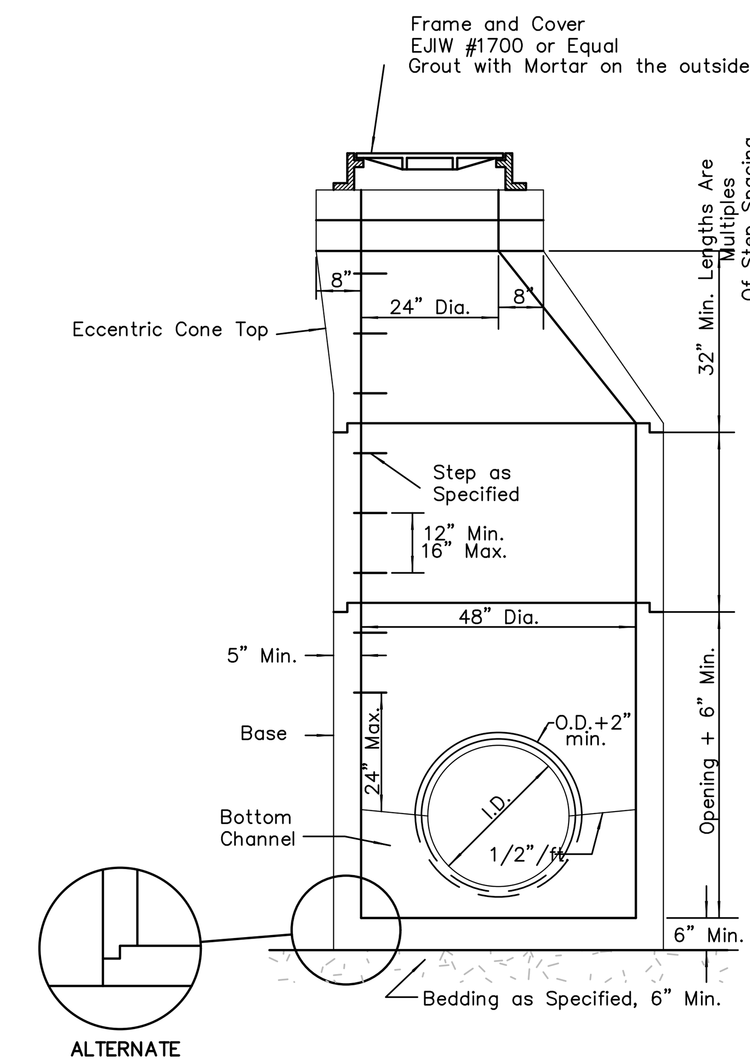
PAYMENT: All materials and labor, including excavation and backfilling, are paid for under Item 611 - Catch Basin, No. 2-(2B or 2C).

CONSTRUCTION INFORMATION
Minimum weight of grate, 120 lbs.

CATCH BASIN	OUTLET PIPE SIZE
2-2B, 2-2C	12" to 21"

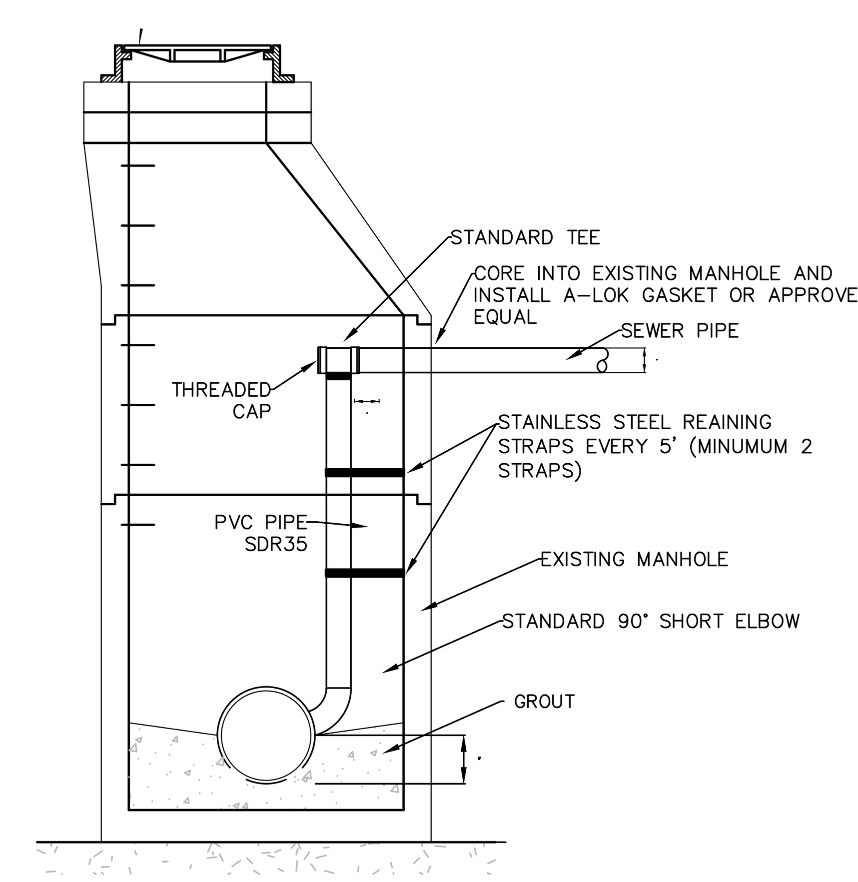


CATCH BASIN No. 2-2C



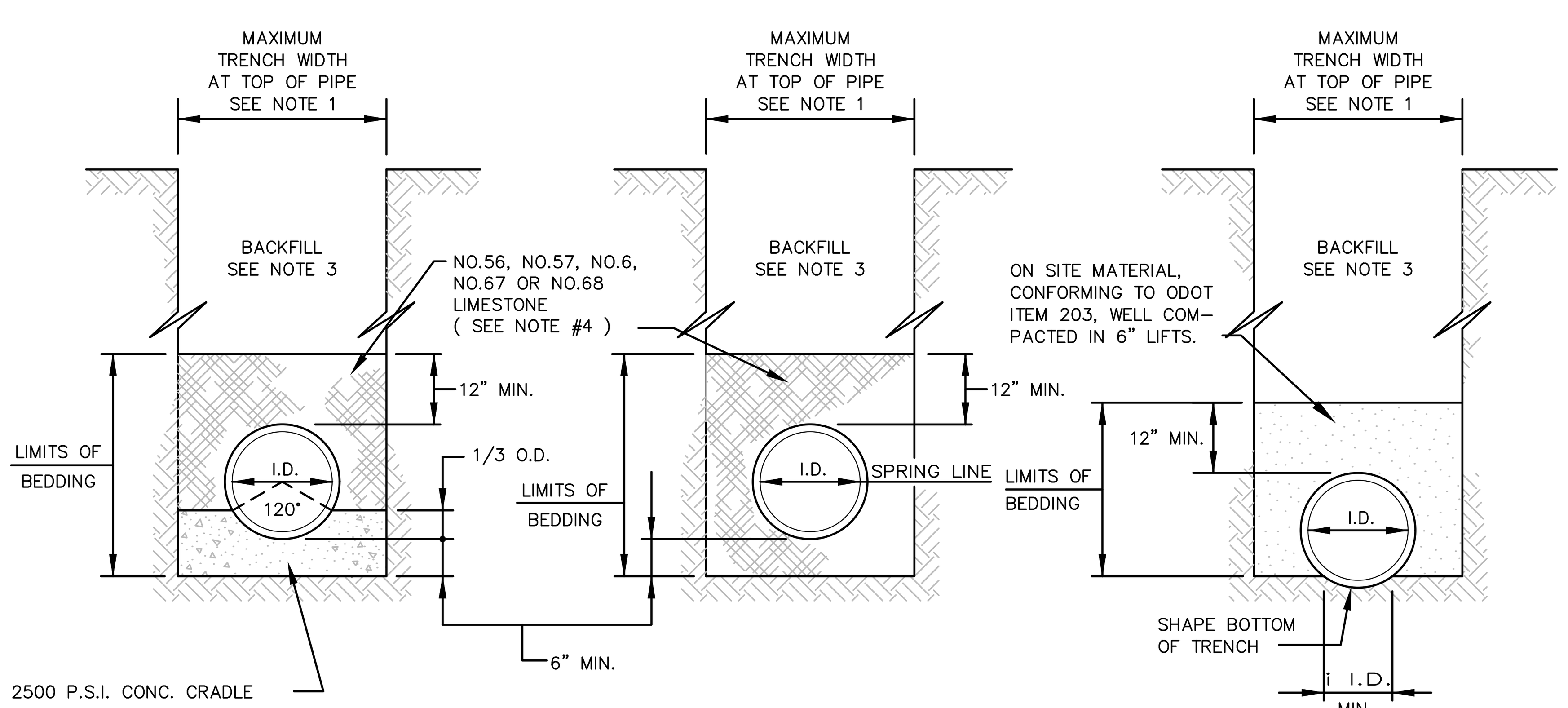
48" PRECAST CONCRETE MANHOLE

NTS



INTERNAL DROP IN EXISTING MANHOLE

NTS

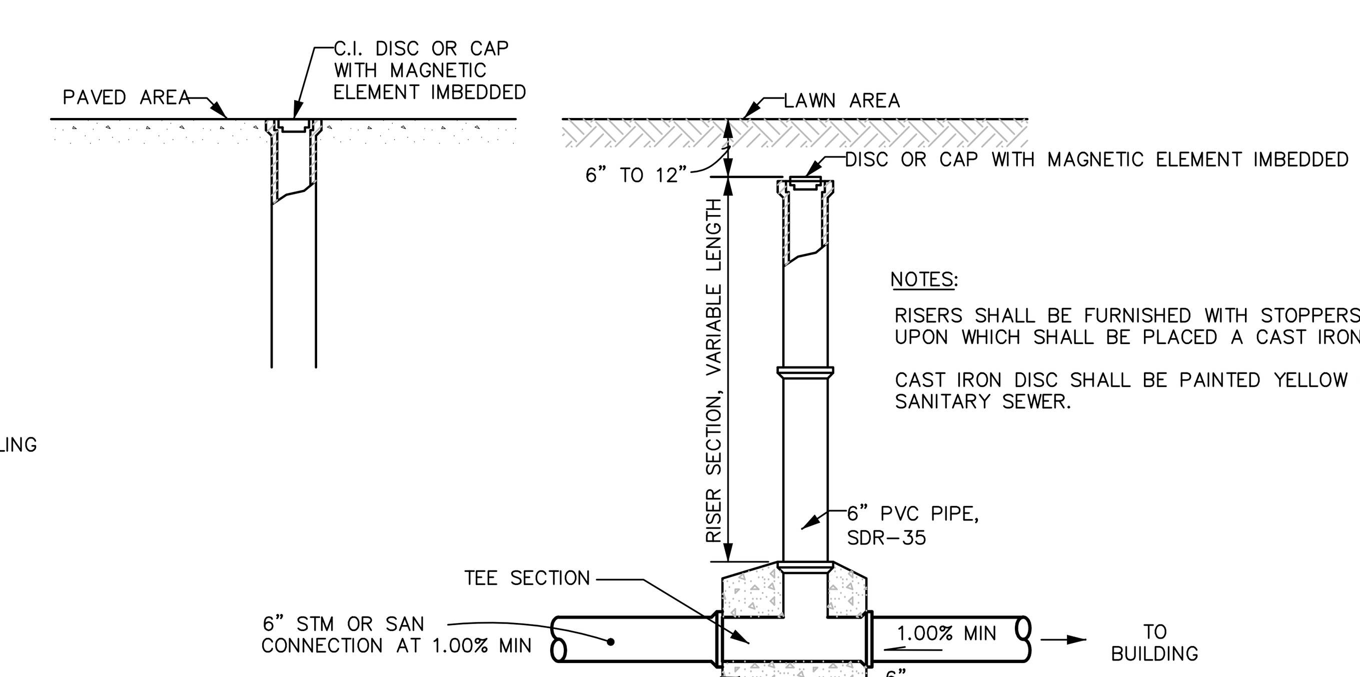


NOTES:

1. MAXIMUM TRENCH AT TOP OF PIPE SHALL BE O.D.+24" FOR ALL PIPES UP TO AND INCLUDING 24" I.D.; O.D.+30" FOR PIPE LARGER THAN 24" I.D. TO 54" I.D.; AND O.D.+48" FOR PIPE SIZES 60" AND OVER.
2. ALL TRENCH EXCAVATION SHALL CONFORM TO THE RULES AND REGULATIONS OF THE OHIO STATE INDUSTRIAL COMMISSION (OSIC) AND THE FEDERAL OCCUPATIONAL SAFETY AND HEALTH ACT (OSHA).
3. ALL BACKFILL MATERIAL USED UNDER ANY PAVEMENTS SHALL BE PREMIUM BACKFILL PLACED FROM THE INITIAL ONE FOOT OVER THE TOP OF UTILITIES, TO PREVENT FLOTATION AND ENTRY OF FLOWABLE FILL INTO ANY OTHER AREAS, TO THE SUBGRADE. ALL OTHER AREAS SHALL BE BACKFILLED WITH SUITABLE MATERIAL AND SHALL BE TAMPED WITH MACHINE MOUNTED TAMPING EQUIPMENT. NO FLOODING, JETTING OR PUDDLING OF BACKFILL WILL BE PERMITTED. BACKFILL SHALL BE COMPACTED TO 100% OF MAXIMUM LABORATORY DRY DENSITY PER ASTM D 698.
4. ALL BEDDING SHALL BE CLASS 'B' EXCEPT AS STATED IN NOTE 6 OR OTHERWISE NOTED ON THE PLANS. BEDDING LIMITS FOR R.C.P.AND D.I.P. SHALL BE TO THE PIPE SPRINGLINE.
5. SLAG BEDDING SHALL NOT BE USED.
6. BEDDING FOR DUCTILE IRON PIPE USED FOR WATERLINE OR FORCE MAIN SHALL BE CLASS 'C' EXCEPT WHEN INSTALLED IN ROCK AND UNDER PAVEMENT OR STRUCTURES, IN WHICH CASE, BEDDING SHALL BE CLASS 'B' OR AS NOTED ON THE PLANS.
7. INSTALL A MAGNETIC DETECTOR TAPE 12" ABOVE THE CENTERLINE OF NON-METALLIC WATERLINES OR SANITARY FORCE MAINS.

TRENCH & BEDDING DETAILS

NTS



NOTES:

RISERS SHALL BE FURNISHED WITH STOPPERS UPON UPON WHICH SHALL BE PLACED A CAST IRON DISC

CAST IRON DISC SHALL BE PAINTED YELLOW ON SANITARY SEWER.

CLEANOUT – TEST TEE

NTS

NOTES FOR STORM SEWERS

1.) THE FOLLOWING PIPES ARE APPROVED FOR THIS PROJECT:
 A) 15" & UNDER – PVC SDR 35 PER ASTM D3034 (GASKETED)
 B) 15" & UNDER – POLYPROPYLENE MEETING ASTM F2764 (ONLY OUTSIDE ROADWAY AND ABOVE ROADWAY'S ANGLE OF REPOSE)
 C) 16" & GREATER – CONCRETE MEETING ASTM C76 CLASS IV
2.) ALL DOWNSPOUT COLLECTORS SHALL USE PUSH ON JOINTS.
3.) ALL DRIVE CULVERT WITH LESS THAN 2' OF COVER ABOVE THE TOP OF THE CULVERT SHALL BE EITHER CONCRETE PIPE MEETING ASTM C76, OR CONCRETE ENCASED PVC SDR 35 OR POLYPROPYLENE PIPE. DRIVE CULVERTS WITH GREATER THAN 2' OF COVER SHALL BE PIPE MATERIAL AS SPECIFIED FOR SEWERS AND PIPES.
3.) PIPE REQUIRES #57 LIMESTONE BACKFILL 12" OVER TOP OF PIPE
4.) CONTRACTOR SHALL INCLUDE COST OF GRANULAR BACKFILL MATERIAL UNDER ALL EXISTING AND PROPOSED PAVEMENTS IN BIDS.
5.) PRIOR TO THE ACCEPTANCE OF THE COMPLETED SEWER LINE, A MANDREL OF NOT LESS THAN NINETY-FIVE PERCENT (95% OF THE AVERAGE CALCULATED REFERENCE INTERNAL DIAMETER OF THE PIPE SHALL BE PULLED BY HAND FREELY THROUGH EACH SECTION OF SEWER PIPE NOT LESS THAN THIRTY (30) DAYS AFTER INSTALLATION AND FINAL BACKFILL.

NOTES FOR SANITARY SEWERS

1.) THE FOLLOWING PIPES ARE APPROVED FOR THIS PROJECT:
 A) V.C.P., C-700 ES w/PREM. JTS. (ASTM C425) (GASKETED)
 B) PVC SDR 35 (SEWER DEPTH LESS THAN 13') w/ASTM D3212 JOINTS (GASKETED)
 C) PVC SDR 26 (SEWER DEPTH 13' OR MORE) w/ ASTM D3212 JOINTS (GASKETED)
 D) PVC SCHEDULE 40 (WITH APPROVAL BY ENGINEER)
2.) ALL PIPES USED FOR THIS PROJECT MUST BE FROM MANUFACTURERS APPROVED BY THE SUMMIT COUNTY DEPARTMENT OF SANITARY SEWER SERVICES (DOSSS).
3.) ALL 6" SANITARY LATERAL CONNECTIONS SHALL BE AT A MINIMUM SLOPE OF 1.0%
4.) PIPE REQUIRES #57 LIMESTONE BACKFILL 12" OVER TOP OF PIPE.
4.) CONTRACTOR SHALL INCLUDE COST OF GRANULAR BACKFILL MATERIAL UNDER ALL EXISTING AND PROPOSED PAVEMENTS IN BIDS.
6.) ALL SANITARY SEWER TO BE C.P. AIR TESTED PER ASTM C-828-80
7.) ALL SANITARY SEWER SYSTEMS MUST PASS AN EXFILTRATION AND AN INFILTRATION TEST AFTER CONSTRUCTION HAS BEEN COMPLETED. THE MAXIMUM RATE OF INFILTRATION SHALL BE 100 GALLONS PER INCH DIAMETER OF SEWER PER MILE, PER DAY, FOR V.C.P. AND 50 GALLONS FOR PVC.
8.) PRIOR TO THE ACCEPTANCE OF THE COMPLETED SEWER LINE, A MANDREL OF NOT LESS THAN NINETY-FIVE PERCENT (95%) OF THE AVERAGE CALCULATED REFERENCE INTERNAL DIAMETER OF THE PIPE SHALL BE PULLED BY HAND FREELY THROUGH EACH SECTION OF SEWER PIPE NOT LESS THAN THIRTY (30) DAYS AFTER INSTALLATION AND FINAL BACKFILL.

STATE OF OHIO DAVID A. PIERANTONI E-61736 REGISTERED PROFESSIONAL ENGINEER

For Planning Commision Not for Construction

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PHONE: (216) 491-2000 FAX: (216) 491-9640
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2023-186

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Laurel Lake Villa
200 Laurel Lake Drive

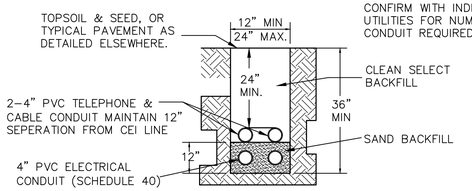
Notes & Details

Ohio Utilities Protection Service Call 811 before you dig

OGPUPS
Ohio Oil & Gas Producers Underground Protection Service Call (614) 715-2984 or 811

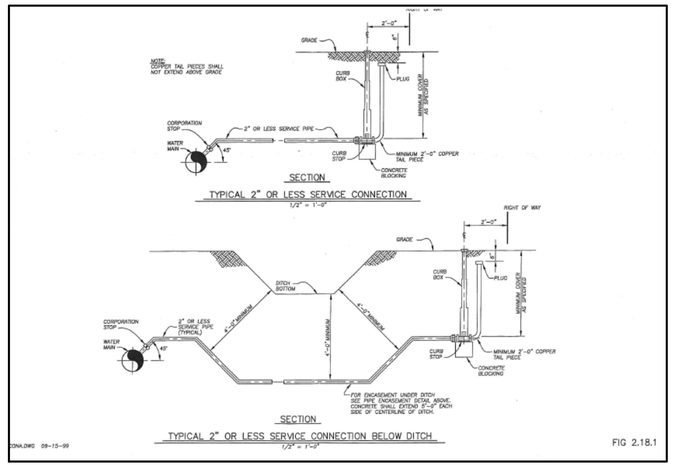
C8.02

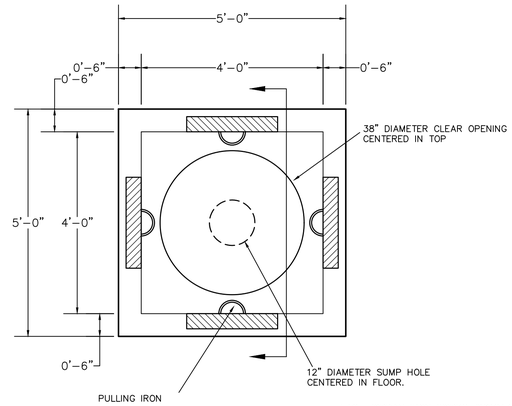
NOTE:
EXCAVATE WIDTH OF TRENCH AS NEEDED. CONTRACTOR TO CONFIRM WITH INDIVIDUAL UTILITIES FOR NUMBER OF CONDUIT REQUIRED.



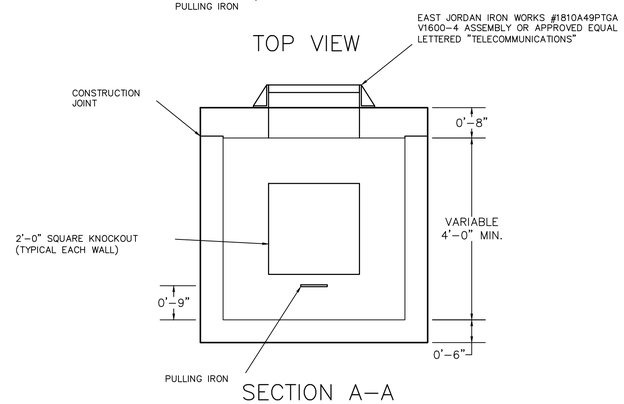
ELECTRIC & TELECOMMUNICATION TRENCH DETAIL

NTS





TOP VIEW

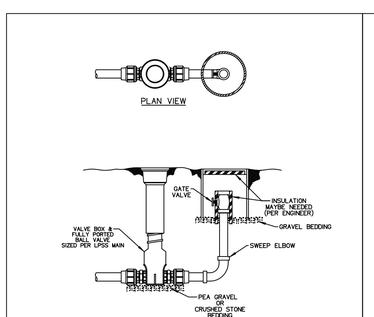


SECTION A-A

MACK INDUSTRIES, INC.
4'X4' ELECTRICAL VAULT
4'x4' ID
OR APPROVED EQUAL

NOTES
1. REINFORCED PRECAST CONCERETE SHALL HAVE A COMPRESSIVE STRCGTH OF 5,000 PSI AT 28 DAYS.
2. REINFORCING TO MET H-20 LOADING.
3. CONSTRUCTION JOINT TO BE SEALED WITH CONSEAL CS-101 MASTIC SEALANT.

4' X 4' TELECOMMUNICATION VAULT



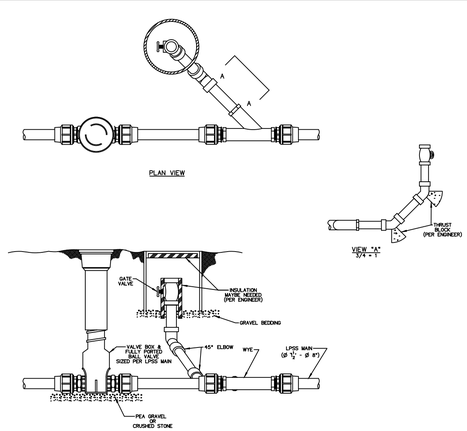
TYPICAL TERMINAL FLUSHING CONNECTION

SGS		05-13-10	1	1/32
DR BY	CHK'D	DATE	ISSUE	SCALE

e|one SEWER SYSTEMS

TYPICAL TERMINAL FLUSHING CONNECTION

ESD 10-0094

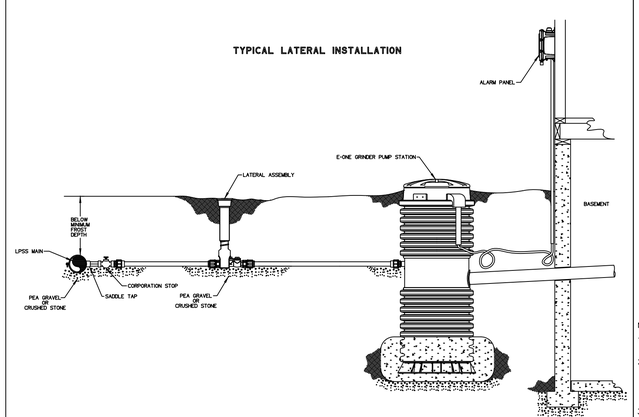


environment|one CORPORATION

TYPICAL FLUSHING CONNECTION ON LPSS MAIN

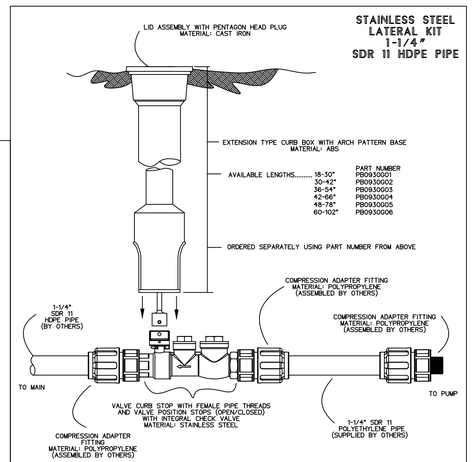
LM000113 REV. A

TYPICAL LATERAL INSTALLATION



environment|one CORPORATION

LM000114 REV. A



NOTES:
1. SS CURB STOP/CHECK VALVE AND FITTINGS ARE PROVIDED SEPARATELY, TO BE ASSEMBLED BY OTHERS
2. TO ASSEMBLE, APPLY A DOUBLE LAYER OF TEFLON TAPE, AND A LAYER OF PIPE DOPE (SUPPLIED BY OTHERS) TO THE THREADS ON THE PLASTIC FITTINGS AND INSTALL PER THE MANUFACTURER'S INSTRUCTIONS
   *FOR SS FITTING INTO SS THREAD, USE PIPE DOPE OR TEFLON TAPE, NOT BOTH
3. ASSEMBLY IS TO BE PRESSURE TESTED (BY OTHERS)
4. ASSEMBLY IS TO BE USED WITH SDR11 HDPE PIPE
5. TO ORDER SS LATERAL KIT, USE PART NUMBER NC0193G01
6. CURB BOX IS TO BE ORDERED SEPARATELY, SEE ABOVE

KIT PARTS ARE NOT ASSEMBLED

SGS	DN	11/02/11	B	3/16
DR BY	CHK'D	DATE	ISSUE	SCALE

e|one SEWER SYSTEMS

STAINLESS STEEL LATERAL KIT
1-1/4" SDR 11 HDPE PIPE

NA0330P02

STATE OF OHIO
PROFESSIONAL ENGINEER
For Planning Commission Not for Construction

RIVERSTONE
LAND SURVEYING - ENGINEERING - DESIGN
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CLEVELAND - OHIO - 44114
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WWW.RIVERSTONESURVEY.COM

2023-186

Plan Revisions:
5/12/2025 Tree Inventory

Page Revisions:

Issued For:
PC Applicaiton
3/17/25
NOT FOR CONSTRUCTION

Laurel Lake Villa
200 Laurel Lake Drive

Notes & Details

Ohio Utilities Protection Service Call 811 before you dig

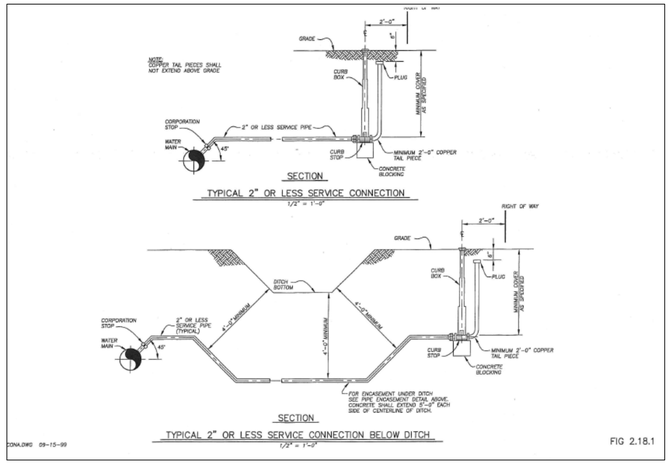
OGPUPS Ohio Oil & Gas Producers Underground Protection Service Call (614) 715-2984 or 811

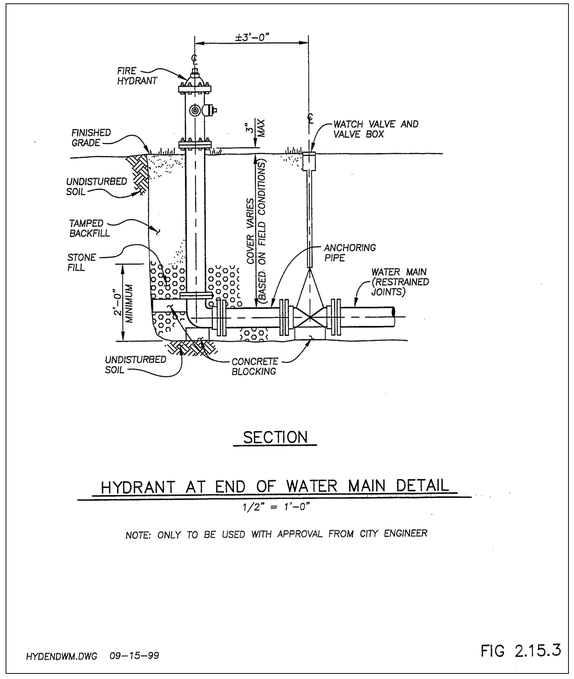
C8.03

CITY OF HUDSON WATER SERVICE AREA

NOTE: THESE WATER WORK NOTES APPLY TO AREAS OF HUDSON THAT ARE TO BE SERVED WITH CITY OF HUDSON WATER.

1. ALL WATER MAINS AND APPURTENANCES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF HUDSON "ENGINEERING STANDARDS FOR INFRASTRUCTURE CONSTRUCTION", LATEST EDITION.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING ANY AND ALL AREAS ALONG THE ROUTE OF THE WATER MAIN. THIS WILL INCLUDE LAWNS, DRIVES, DITCHES, CULVERTS, LANDSCAPING, ETC, AND ANY OTHER AREAS DISTURBED DURING THE CONSTRUCTION PROCESS.
3. ALL TESTING SHALL BE IN ACCORDANCE WITH THE CITY OF HUDSON "ENGINEERING STANDARDS FOR INFRASTRUCTURE CONSTRUCTION" AND BE COORDINATED WITH THE CITY OF HUDSON. AWWA C-600 PRESSURE TESTING AND C-651 DISINFECTION BY CHLORINATION OF THE WATER MAIN WILL BE REQUIRED.
4. ALL PROPOSED TRENCHES LOCATED UNDER EXISTING OR PROPOSED PAVEMENT SHALL BE FILLED WITH LOW STRENGTH MORTAR. THE METHOD OF BACKFILLING AS DIRECTED BY THE ENGINEER, SHALL CONFORM TO ODOT 613 TYPE 1. SLAG OR FLY ASH IS NOT PERMITTED IN MIX. PAVEMENT INCLUDES, BUT IS NOT LIMITED TO, ROADWAY SURFACES, SIDEWALKS, BIKE WAYS, DRIVEWAYS, SHOULDERS, ETC. THE LIMITS OF THE LOW STRENGTH MORTAR SHALL INCLUDE 45° ANGLE OF REPOSE FROM ALL EDGES OF PAVEMENT.
5. FIELD STAKING AND RECORD DRAWINGS SHALL BE PROVIDED TO THE CITY BY THE CONTRACTOR, AS SUPERVISED AND STAMPED BY A LICENSED PROFESSIONAL SURVEYOR. RECORD DRAWINGS (AS-BUILTS) IN BOTH REPRODUCIBLE AND DIGITAL FORMAT COMPATIBLE WITH THE CITY OF HUDSON STANDARDS TO BE SUBMITTED TO AND APPROVED BY THE CITY OF HUDSON PRIOR TO UTILITY SERVICE CONNECTIONS BEING MADE.
6. A 4' MINIMUM HORIZONTAL CLEARANCE AND A 12" MINIMUM VERTICAL CLEARANCE SHALL BE MAINTAINED FROM THE EDGE OF THE WATER MAIN PIPE TO THE EDGE OF THE STORM SEWER PIPE.
7. A 10' MINIMUM HORIZONTAL CLEARANCE AND AN 18" MINIMUM VERTICAL CLEARANCE SHALL BE MAINTAINED FROM THE EDGE OF THE WATER MAIN PIPE TO THE EDGE OF ALL SANITARY SEWERS AND/OR FORCE MAIN PIPE.
8. ALL VALVES, FITTINGS, BENDS, TEES, ETC. SHALL HAVE MEGALUG JOINT RESTRAINTS BY EBBA IRON, INC.
9. ALL WATER MAINS WITHIN LOW STRENGTH MORTAR BACKFILL SHALL BE WRAPPED IN POLYETHYLENE AS PER AWWA C-105. OTHER AREAS TO BE WRAPPED IN POLYETHYLENE SHALL BE AS SHOWN ON THE DRAWINGS, AS DETERMINED FROM DIPRA REPORT OR AS REQUIRED BY THE CITY.
10. WHERE WATER MAINS CROSS SEWER TRENCHES, THE TRENCH IS TO BE BACKFILLED WITH ODOT 304 CRUSHED LIMESTONE.
11. TAPPING SLEEVES SHALL BE ROMAC TYPE, WRAP AROUND STAINLESS STEEL WITH # 316 STAINLESS STEEL BOLTS AND NUTS.
12. MANUFACTURER'S AFFIDAVIT: THE MANUFACTURER SHALL FURNISH AN AFFIDAVIT INDICATING THAT ALL PIPE, FITTINGS, VALVES, FIRE HYDRANTS, AND APPURTENANCES HAVE BEEN MANUFACTURED AND TESTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE APPLICABLE REFERENCED STANDARDS. A COPY OF EACH AFFIDAVIT, INDICATING THE PROJECT ON WHICH THE MATERIAL IS TO BE USED SHALL BE FORWARDED TO THE CITY OF HUDSON PRIOR TO THE PRECONSTRUCTION MEETING BEING SCHEDULED.
13. BOOSTER PUMPS ARE NOT PERMITTED ON SERVICE CONNECTIONS. THE CITY MAY GRANT SPECIAL PERMISSION FOR BUILDINGS FOUR STORIES AND HIGHER WITH A FIRE SUPPRESSION SYSTEM.
14. PROPOSED FACILITIES SHALL BE DESIGNED TO MAINTAIN A MINIMUM OF 35 PSI PRESSURE DELIVERED TO THE CURB STOP DURING NORMAL OPERATING CONDITIONS.
15. ALL WATER MAINS GREATER THAN 12 INCH DIAMETER SHALL BE LAID TO GRADE WITH HIGH POINTS AND LOW POINTS HAVING ADEQUATE BLOW-OFFS VIA USE OF HYDRANTS.
16. FOR ALL NON-RESIDENTIAL WATER SERVICE, A BACKFLOW PREVENTION DEVICE SHALL BE INSTALLED PER CITY OF HUDSON AND OEPA STANDARDS AND REQUIREMENTS. FOR RESIDENTIAL WATER SERVICE A BACKFLOW PREVENTION DEVICE MAY BE REQUIRED FOR SWIMMING POOLS, IRRIGATION SYSTEMS, ETC. CONTACT THE CITY SERVICE/WATER DISTRIBUTION DEPARTMENT FOR THE REQUIREMENTS AND STANDARDS FOR BACKFLOW PREVENTION, THERMAL EXPANSION CONTROL, ETC.
17. ALL WATER METER SETTINGS MUST BE APPROVED BY THE CITY OF HUDSON. METERS SHALL BE MAGNETIC DRIVE, WITH A SCANCODE REMOTE READ, MUST READ IN CUBIC FEET, SET WITH VALVES BEFORE AND AFTER THE METER. IT IS THE RESPONSIBILITY OF THE OWNER/CONTRACTOR TO PROVIDE AND RUN A REMOTE WATER METER WIRE FROM THE PROPOSED WATER METER LOCATION TO THE VICINITY OF THE PROPOSED ELECTRIC METER LOCATION. CONTACT THE CITY SERVICE/WATER DISTRIBUTION DEPARTMENT FOR THE COMPLETE STANDARDS AND REQUIREMENTS FOR WATER METERS, PRESSURE REGULATORS, ETC.
18. FOR NEW WATER MAIN CONSTRUCTION THE DRAWINGS SHALL HAVE BEEN REVIEWED BY THE OHIO EPA AND WRITTEN APPROVAL RECEIVED PRIOR TO THE START OF CONSTRUCTION.
19. ALL WATER SHUT DOWNS SHALL BE PLANNED FOR MONDAY THROUGH WEDNESDAY ONLY.





STATE OF OHIO
PROFESSIONAL ENGINEER
For Planning Commission Not for Construction

RIVERSTONE
LAND SURVEYING - ENGINEERING - DESIGN
3800 LAKESIDE AVENUE, SUITE 100
CLEVELAND - OHIO - 44114
PHONE: (216) 491-2000 FAX: (216) 491-9640
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10/11/2024 Fire Comments

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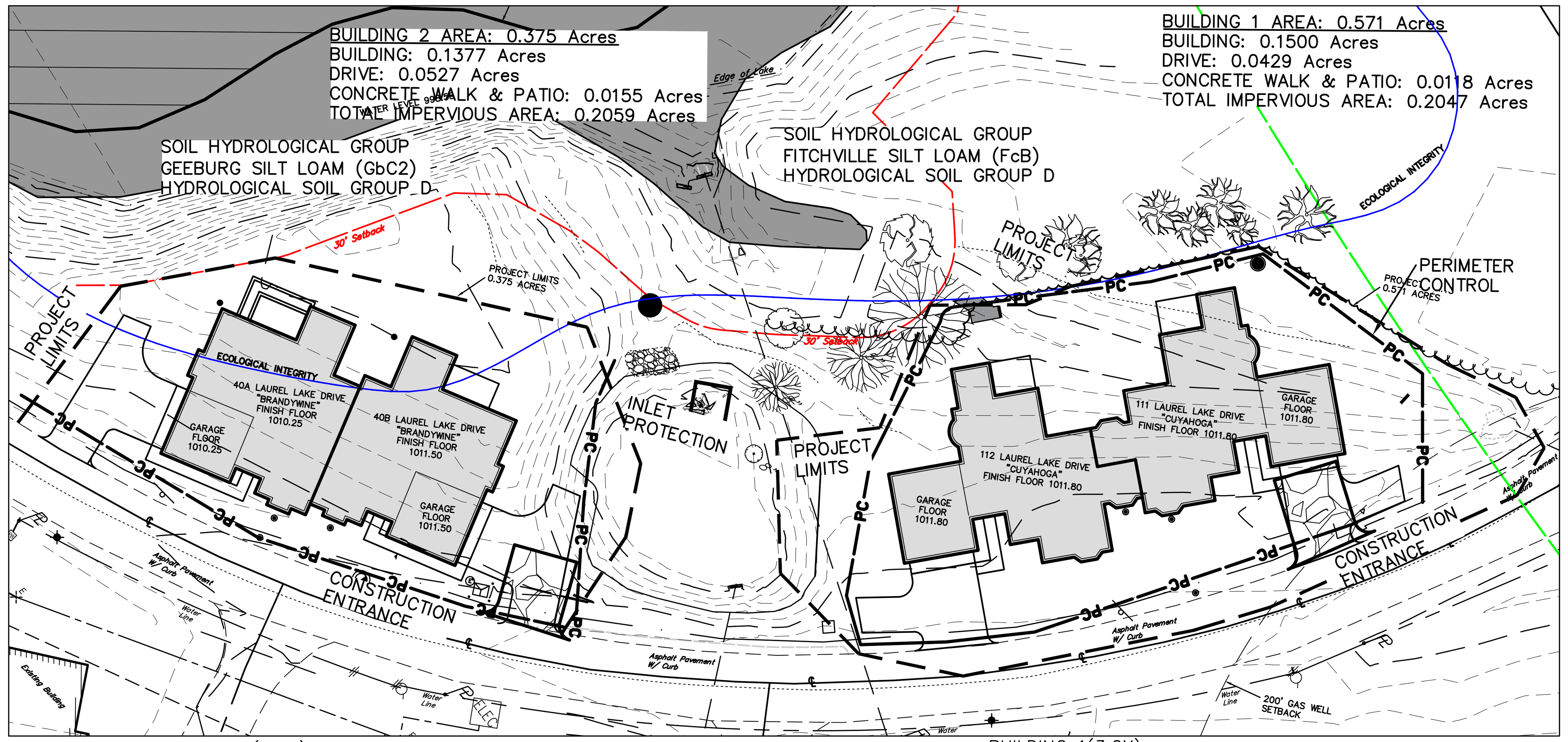
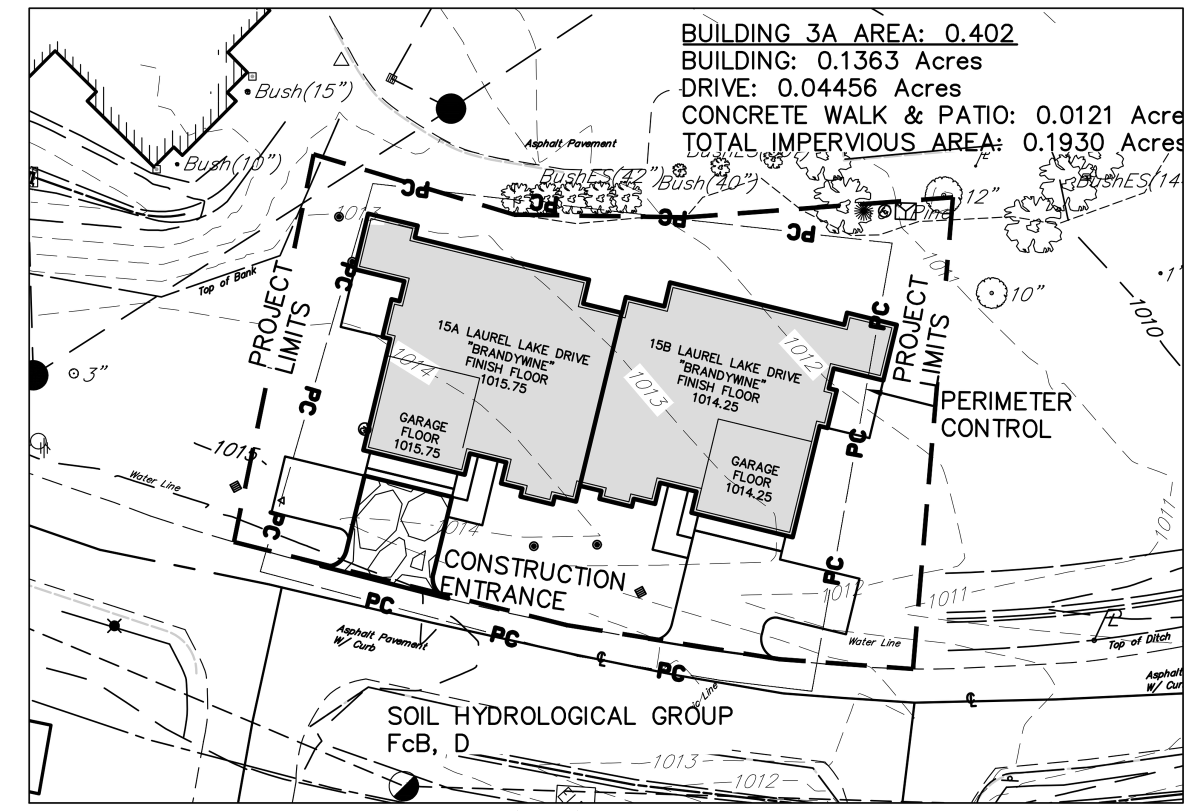


BUILDING 2(3.0X)
PROJECT LIMITS: 0.375 ACRES
IMPERVIOUS AREA: 0.206 ACRES
OPEN AREA: 0.169 ACRES

BUILDING 1(3.0X)
PROJECT LIMITS: 0.571 ACRES
IMPERVIOUS AREA: 0.205 ACRES
OPEN AREA: 0.366 ACRES



BUILDING 3A (4.0X)
PROJECT LIMITS: 0.402 ACRES
IMPERVIOUS AREA: 0.193 ACRES
OPEN AREA: 0.209 ACRES

GENERAL SWPPP NOTES:

TOTAL LOT AREA = 141.9 ACRES
DISTURBED AREA = 4.37 ACRES

LOCATION OF WASTE STORAGE AND DISPOSAL SHOWN ON THE PLANS SHALL BE VERIFIED BY CONTRACTOR. LOCATION MAY BE CHANGED AND THE SWPPP AMENDED.

A COPY OF THE SWPPP AND ALL ADDENDUM TO THE SWPPP SHALL BE KEPT ON SITE AT ALL TIMES.

ALL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE INSTALLED AS PER PLAN. ALL PRACTICES MUST BE MAINTAINED AND FUNCTIONAL DURING CONSTRUCTION ACTIVITIES.

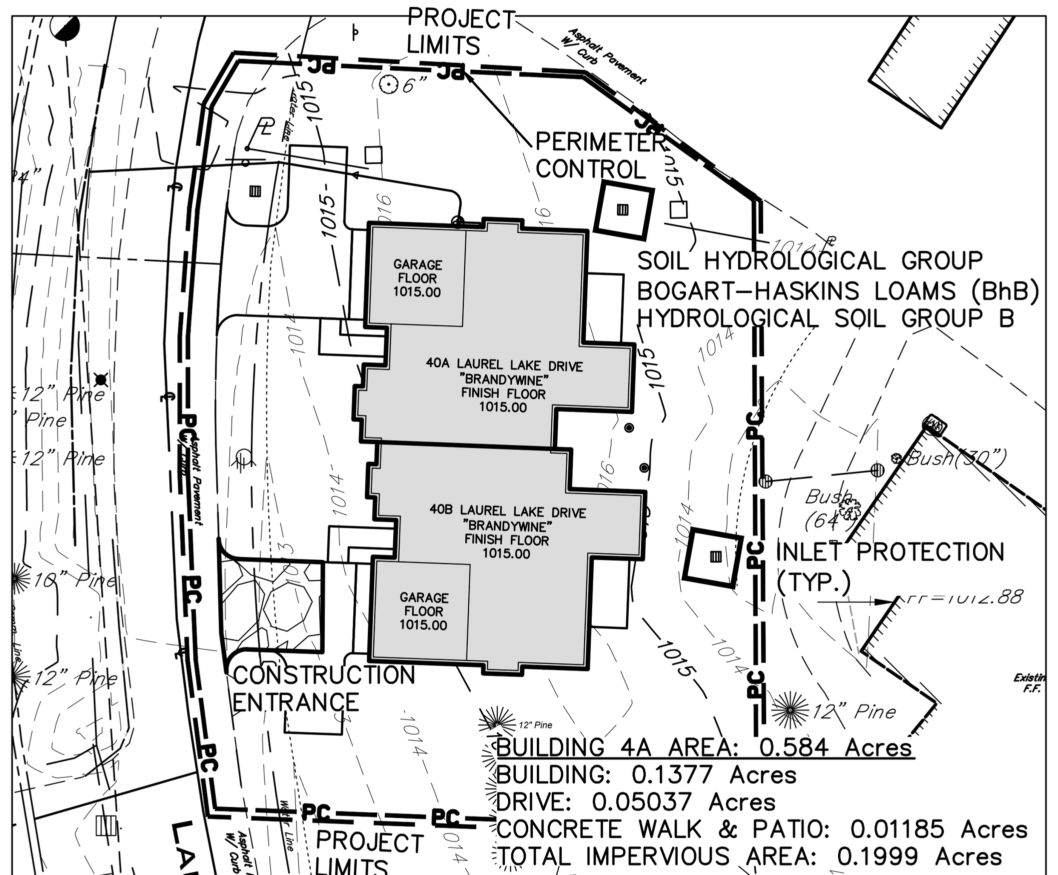
EROSION CONTROL BLANKETS WITH MATTING SHALL BE USED ON SLOPES GREATER THAN 6%.

EXCESS SEDIMENT SHALL BE REMOVED FROM THE TEMPORARY SEDIMENT BASIN WHEN THE SEDIMENT OCCUPIES 40% OF THE SEDIMENT STORAGE ZONE.

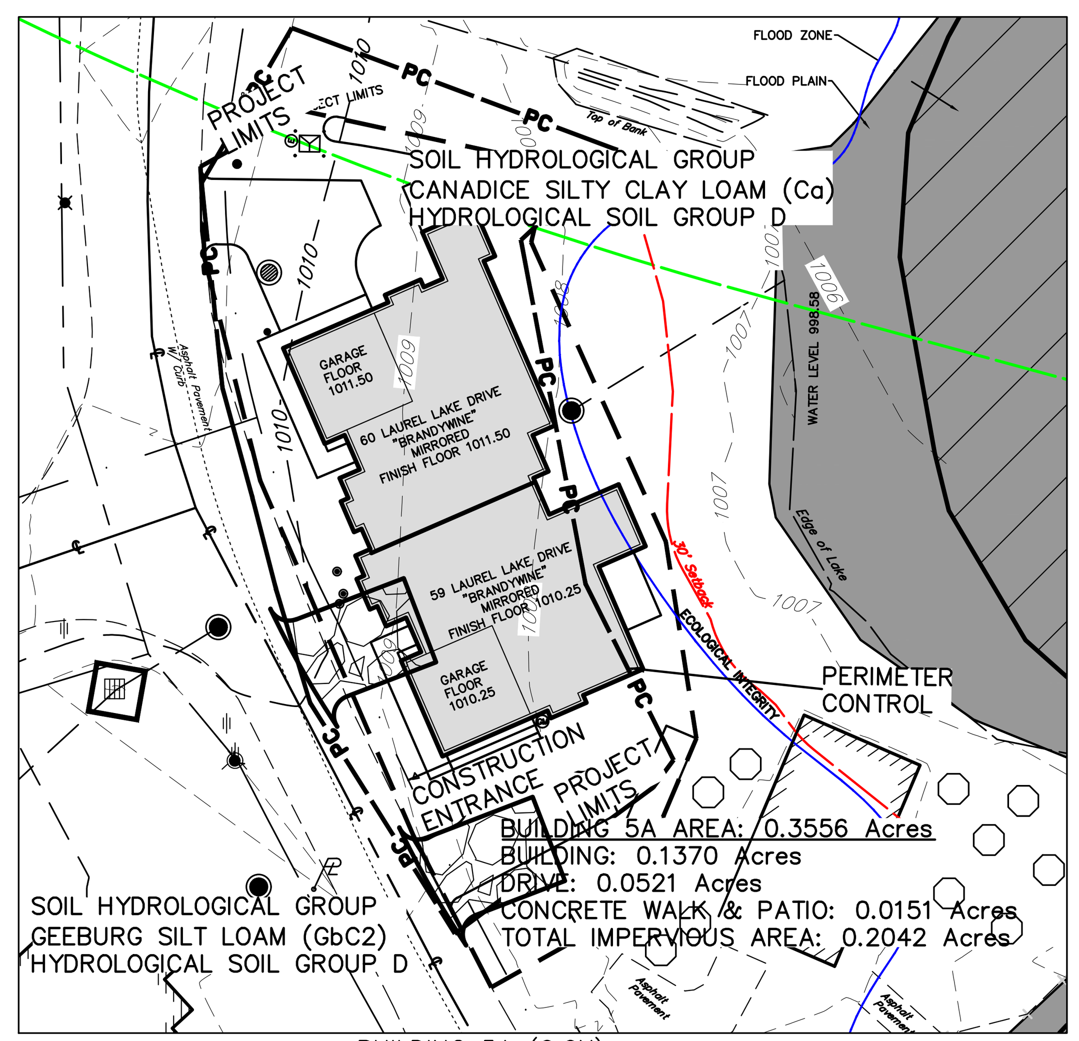
ONCE THE SITE HAS BEEN STABILIZED AND PROPER AUTHORIZATION HAS BEEN OBTAINED, CONSTRUCTION BMPS MAY BE REMOVED.

CONSTRUCTION SCHEDULE

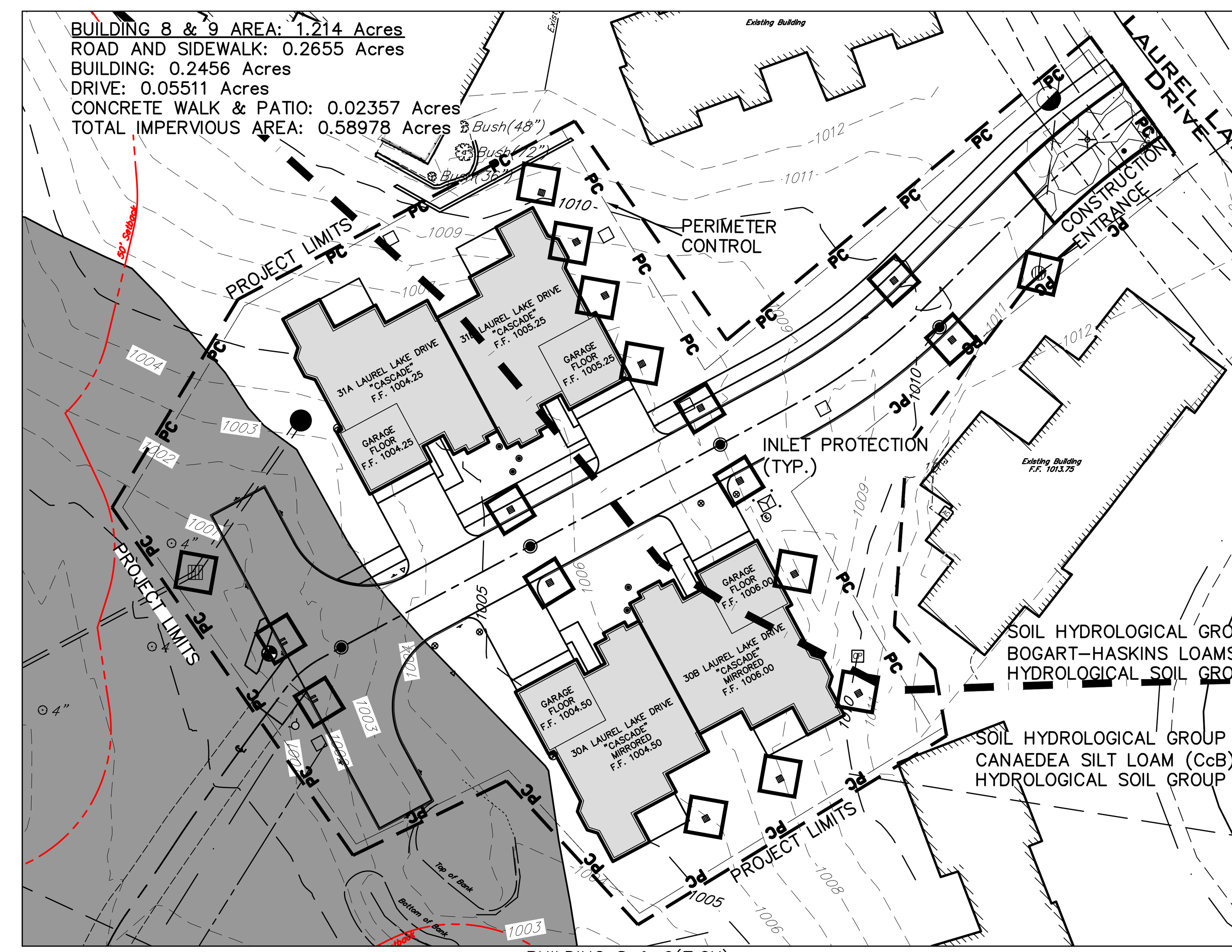
1. INSTALL TEMPORARY STONE CONSTRUCTION ENTRANCE.
2. INSTALL PERIMETER CONTROL.
3. CLEAR AND GRUB WITHIN CONSTRUCTION LIMITS.
4. STRIP TOPSOIL.
5. MASS GRADE AND APPLY SOIL STABILIZATION AS REQUIRED.
6. INSTALL UTILITIES.
7. INSTALL INLET PROTECTION ON NEW CATCH BASINS.
8. INSTALL BUILDING FOUNDATION.
9. PAVE
10. AFTER PROPER AUTHORIZATION HAS BEEN OBTAINED BY THE GOVERNING AGENCY, REMOVE EROSION AND/OR SEDIMENT BMP'S.



BUILDING 4A (5.0X)
PROJECT LIMITS: 0.584 ACRES
IMPERVIOUS AREA: 0.200 ACRES
OPEN AREA: 0.384 ACRES



BUILDING 5A (6.0X)
PROJECT LIMITS: 0.3556 ACRES
IMPERVIOUS AREA: 0.2042 ACRES
OPEN AREA: 0.1514 ACRES



BUILDING 8 & 9(7.0X)
PROJECT LIMITS: 1.214 ACRES
IMPERVIOUS AREA: 0.59 ACRES
OPEN AREA: 0.624 ACRES

SITE DATA: THE PROJECT IS LOCATED ON LAUREL LAKE DRIVE IN THE CITY OF HUDSON. THE ENTIRE AREA OF THE SITE IS APPROXIMATELY 141.9 ACRES. THE PROJECT LIMITS IS APPROXIMATELY 4.37 ACRES. EXISTING STORM WATER ON SITE IS COLLECTED INTO DRAINAGE SYSTEM BEFORE BEING DEPOSITED INTO A DETENTION BASIN OR DIRECTLY INTO ONE OF TWO LAKES ON SITE. DETENTION BASINS ON SITE DEPOSIT INTO LAKES. THE LARGER OF THE TWO LAKES– LAUREL LAKE FLOWS INTO PINE LAKE OFF SITE.

PRE CONSTRUCTION WEIGHTED C VALUE (PROJECT LIMITS)

Surface	c	Area	CxArea
Woods (Fair)	0.41	0.18	0.0738
Impervious	0.96	0.36	0.1344
Open (Fair)	0.57	3.57	2.0349
Total		4.11	2.2431

Weighted C = 2.2431 / 4.11 = 0.546

PRE CONSTRUCTION % IMPERVIOUSNESS (PROJECT LIMITS)
0.36 / 4.11 = 8.8%

PRE CONSTRUCTION % IMPERVIOUSNESS (TOTAL SITE)
23.18 / 141.9 = 16.3%

SOILS: THE NATIONAL RESOURCE CONSERVATION SERVICE WEB SOIL SURVEY OF SUMMIT COUNTY IDENTIFIES THE SOILS ON SITE AS SUCH:

BUILDING 1 – GEEBURG SILT LOAM (GbC2), HSG D
BUILDING 2 – FITCHVILLE SILT LOAM (FcB), HSG D
BUILDING 3A – FITCHVILLE SILT LOAM (FcB), HSG D
BUILDING 4A – BOGART-HASKINS LOAMS (BhB), HSG B
BUILDING 5 – CANADICE SILTY CLAY LOAM (Ca), HSG D
BUILDING 8 – CANAEDEA SILT LOAM (CcB), HSG D
BOGART-HASKINS LOAMS (BhB), HSG B
BUILDING 9 – CANAEDEA SILT LOAM (CcB), HSG D
BOGART-HASKINS LOAMS (BhB), HSG B

CONSTRUCTION ACTIVITY: CONSTRUCTION ACTIVITY WILL INCLUDE THE CLEARING AND GRUBBING OF THE PROJECT LIMITS SITE AND THE CONSTRUCTION OF PROPOSED BUILDINGS. CONSTRUCTION WILL ALSO INCLUDE THE INSTALLATION OF NEW UTILITY CONNECTIONS AND STORM SEWER SYSTEM THAT DEPOSITS STORM SEWER WATER INTO LAUREL LAKE. EACH BUILDING WILL EITHER DEPOSIT DIRECTLY INTO THE LAKE, DEPOSIT INTO THE LOCAL STORM SEWER SYSTEM WHICH EVENTUALLY DEPOSITS INTO THE LAKE, OR DEPOSIT INTO A LOCAL DETENTION SYSTEM WHICH WILL DEPOSIT INTO THE LAKE.

POST CONSTRUCTION WEIGHTED C VALUE

Surface	C	Area	CxArea
Bldg Site	0.90	1.2983	1.1685
Road	0.90	0.2655	0.2390
Open (Fair)	0.57	2.5462	1.4513
Total		4.11	2.8588

Weighted C = 2.8588 / 4.11 = 0.70

POST CONSTRUCTION % IMPERVIOUSNESS
1.5638 / 4.11 = 0.380 = 38.0%

POST CONSTRUCTION % IMPERVIOUSNESS (TOTAL SITE)
24.38 / 141.9 = 17.2%

FUTURE STORM WATER:
FUTURE STORM WATER WILL BE COLLECTED IN STORM SEWERS ON SITE. BUILDINGS 1,2 AND 5A WILL BE DISCHARGED DIRECTELY TO LAKE FOREST. LAKE FOREST HAS A DRAINAGE AREA OF APPROXIMATELY 3,200 ACRES. THE TOTAL IMPERVIOUS AREA DRAINING TO THE LAKE IS LESS THAN 5% OF THE TOTAL DRAINAGE AREA, THEREFORE WATER QUALITY DOES NOT NEED TO BE INCLUDED. BUILDING 4A DRAINS TO A SMALL DETENTION BASIN TO REDUCE THE PEAK FLOW FROM THE UNIT BEFORE BEING DISCHARGED INTO A STORM SEWER ON SITE. THIS ALSO DRAINS TO LAKE FOREST. BUILDING 3A, 8 AND 9 DRAIN TO THE LAUREL LAKE BEHIND THE DEVELOPMENT. LAUREL LAKE HAS A DRAINAGE AREA OF APPROXIMATELY 46 ACRES. THE INCREASE IN IMPERVIOUS AREA DRAINING TO THE LAKE IS LESS THAN 5% OF THE TOTAL DRAINAGE AREA AND THEREFORE WATER QUALITY IS NOT REQUIRED.

NOTICE OF INTENT (NOI) & NOTICE OF TERMINATION (NOT):
PRIOR TO THE START OF CONSTRUCTION ACTIVITIES, A NOTICE OF INTENT (NOI) SHALL BE FILED BY THE OWNER WITH THE OHIO EPA. CONSTRUCTION ACTIVITIES WILL COMPLY IN WITH CITY OF HUDSON CODIFIED ORDINANCE AND OEPA CONSTRUCTION GENERAL PERMIT #OHC000005. ONCE CONSTRUCTION IS COMPLETE AND THE SITE HAS BEEN STABILIZED THE DEVELOPER SHALL SUBMIT A NOTICE OF TERMINATION (NOT) WITH THE OHIO EPA.

NOI PERMIT # ____________

CONSTRUCTION:
START: WINTER 2023 – COMPLETION: SPRING 2024

SWPPP CHANGES & AMENDMENTS: ALL CHANGES AND AMENDMENTS TO THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) SHALL BE APPROVED BY DAVID A. PIETRANTONE P.E., THE RIVERSTONE COMPANY.

THE RIVERSTONE COMPANY
3800 LAKESIDE AVENUE, SUITE 100
CLEVELAND, OHIO 44114
PHONE: (216) 491-2000

PREPARED FOR & OWNER:
LAUREL LAKE RETIREMENT COMMUNITY
ANDREW LOVANO
PH: 330-655-1402

CONTRACTOR:

____
____
____
____

SWPPP LEGEND

- PERIMETER CONTROL; SILT FENCE OR COMPOST FILLED FILTER SOCK
- CONSTRUCTION LIMITS
- SOIL TYPE
- CONSTRUCTION ENTRANCE
- CONCRETE WASHOUT
- INLET PROTECTION

GRAPHIC SCALE
40 0 20 40 60
(IN FEET)
1 inch = 40 ft.

STATE OF OHIO
DAVID A. PIETRANTONE
E-61756
REGISTERED
PROFESSIONAL ENGINEER
For Planning Commission
Not for Construction

RIVERSTONE
LAND SURVEYING - ENGINEERING - DESIGN
3800 LAKESIDE AVENUE - SUITE 100
CLEVELAND - OHIO - 44114
PHONE: (216) 491-2000 FAX: (216) 491-9640
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2023-186

PLAN REVISIONS:
5/12/2025 TREE INVENTORY

PAGE REVISIONS:
9/7/2023 PRE APPLICATION MEETING

ISSUED FOR:
PC APPLICAITON
3/17/25
NOT FOR CONSTRUCTION

LAUREL LAKE VILLA
200 LAUREL LAKE DRIVE

SWPPP

Ohio Utilities Protection Service
Call 811 before you dig

OGPUPS
Ohio Oil & Gas Producers Underground Protection Service

C9.01

SILT FENCE

DESCRIPTION:

SILT FENCE IS A SEDIMENT–TRAPPING PRACTICE UTILIZING A GEOTEXTILE FENCE, TOPOGRAPHY AND VEGETATION TO CAUSE SEDIMENT DEPOSITION. SILT FENCE REDUCES RUNOFF'S ABILITY TO TRANSPORT SEDIMENT BY PONDING RUNOFF AND DISSIPATING SMALL RILLS OF CONCENTRATED FLOW INTO UNIFORM SHEET FLOW.

CONDITIONS WHERE PRACTICE APPLIES:

SILT FENCE IS USED WHERE RUNOFF OCCURS AS SHEET FLOW OR WHERE FLOW THROUGH SMALL RILLS CAN BE CONVERTED TO SHEET FLOW. SILT FENCE CANNOT EFFECTIVELY TREAT FLOWS IN GULLIES, DITCHES OR CHANNELS. FOR MORE SEVERE CONDITIONS SEE SPECIFICATIONS FOR TEMPORARY DIVERSIONS, SEDIMENT TRAPS AND SEDIMENT BASINS.

PLANNING CONSIDERATIONS:

SILT FENCE VS TEMPORARY DIVERSIONS AND SETTLING PONDS – TO TREAT SHEET FLOW RUNOFF, SILT FENCE IS USED OR DIVERSIONS ARE CONSTRUCTED TO DIRECT RUNOFF TO A SEDIMENT POND. SILT FENCE IS MOST APPLICABLE FOR RELATIVELY SMALL AREAS WITH FLAT TOPOGRAPHY. SILT FENCE ALSO REQUIRES LESS SPACE AND CAUSES LESS DISTURBANCE. A SYSTEM OF DIVERSIONS AND SETTLING PONDS, ON THE OTHER HAND, HAS GREATER INTEGRITY. COMPARED TO SILT FENCE, THEY CAN HANDLE MUCH GREATER FLOWS AND ARE MORE DURABLE AND EASIER TO CONSTRUCT CORRECTLY. AS A RESULT, EARTH DIVERSIONS AND SETTLING PONDS GENERALLY ARE RECOMMENDED OVER SILT FENCE.

DESIGN CRITERIA:

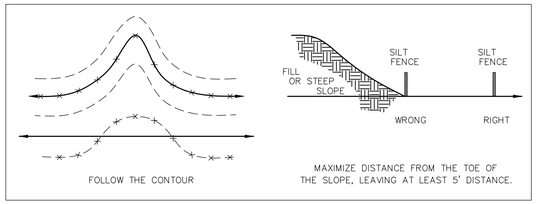
SILT FENCE AS A SEDIMENT CONTROL PRACTICE CONSISTS NOT ONLY OF THE FENCE ITSELF BUT, JUST AS IMPORTANTLY, IT ENTAILS TOPOGRAPHY. THIS IS A CRITICAL CONSIDERATION BECAUSE THE SEDIMENT REMOVAL PROCESS RELIES ON DEPOSITION NOT FILTERING, AS OFTEN ASSUMED. SILT FENCE WORKS BY DISPERSING FLOW, PONDING RUNOFF AND RELEASING DIFFUSE FLOW. HOWEVER, IF SILT FENCE IS USED WITHOUT REGARD TO A SITE'S TOPOGRAPHY, IT WILL TYPICALLY CONCENTRATE RUNOFF, INCREASING ITS ABILITY TO TRANSPORT SEDIMENT RATHER THAN CAUSING DEPOSITION.

LEVEL CONTOUR – FOR SILT FENCE TO ENHANCE DEPOSITION, IT MUST BE PLACED ON THE LEVEL CONTOUR OF THE LAND SO THAT FLOWS ARE DISSIPATED INTO UNIFORM SHEET FLOW, WHICH HAS LITTLE ENERGY FOR TRANSPORTING SEDIMENT. SILT FENCE SHOULD NEVER CONCENTRATE RUNOFF, WHICH WILL RESULT IF IT IS PLACED UP AND DOWN SLOPES RATHER THAN ON THE LEVEL CONTOUR.

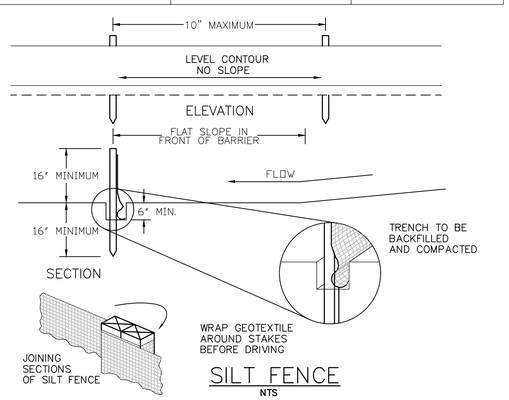
FLAT SLOPES – SILT FENCE MUST ALSO BE USE ON THE FLATTEST AREAS AVAILABLE. BECAUSE OF THE GREAT IMPORTANCE SLOPE HAS ON WATER'S ABILITY TO TRANSPORT SEDIMENT, SILT FENCE SHOULD NEVER BE PLACED DIRECTLY AT THE TOE OF A SLOPE IF IT IS AT ALL POSSIBLE TO PLACE IT SEVERAL FEET AWAY. SILT FENCE GENERALLY SHOULD BE PLACED ON THE FLATTEST AREA AVAILABLE TO INCREASE THE SHALLOW PONDING OF RUNOFF AND MAXIMIZE SPACE AVAILABLE FOR DEPOSITED SEDIMENT.

FLOW AROUND ENDS – TO PREVENT WATER PONDED BY THE SILT FENCE FROM FLOWING AROUND THE ENDS, EACH END MUST BE CONSTRUCTED UP–SLOPE SO THAT THE ENDS ARE AT A HIGHER ELEVATION.

VEGETATION – DENSE VEGETATION ALSO HAS THE EFFECT OF DISSIPATING FLOW ENERGIES AND CAUSING SEDIMENT DEPOSITION. SEDIMENT–TRAPPING EFFICIENCY WILL BE ENHANCED WHERE A DENSE STAND OF VEGETATION OCCURS FOR SEVERAL FEET BOTH BEHIND AND IN FRONT OF A SILT FENCE.

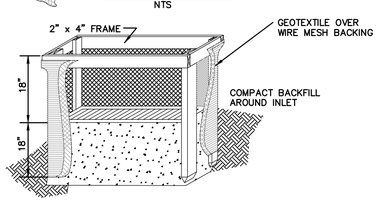


FABRIC PROPERTIES	VALUES	TEST METHOD
GRAB TENSILE STRENGTH	90 LB. MINIMUM	AStm D 1682
MULLEN BURST STRENGTH	190 PSI MINIMUM	AStm D 3786
SLURRY FLOW RATE	0.3 GAL./MIN./SQ. FT. MAXIMUM	
EQUIVALENT OPENING SIZE	40–80	US STD. SLEVE CW–02215
ULTRAVIOLET RADIATION STABILITY	90% MINIMUM	AStm–G–26



SILT FENCE

NTS



INLET PROTECTION IN SWALES, DITCH LINES OR YARD INLETS

NTS

SPECIFICATIONS FOR SILT FENCE:

1. SILT FENCE SHALL BE CONSTRUCTED BEFORE UP–SLOPE LAND DISTURBANCE BEGINS.
2. ALL SILT FENCE SHALL BE PLACED AS CLOSE TO THE CONTOUR AS POSSIBLE SO THAT WATER WILL NOT CONCENTRATE AT LOW POINTS IN THE FENCE AND SO THAT SMALL SWALES OR DEPRESSIONS WHICH MAY CARRY SMALL CONCENTRATED FLOWS TO THE SILT FENCE ARE DISSIPATED ALONG ITS LENGTH.
3. TO PREVENT WATER PONDED BY THE SILT FENCE FROM FLOWING AROUND THE ENDS, EACH END SHALL BE CONSTRUCTED UP–SLOPE SO THAT THE ENDS ARE AT A HIGHER ELEVATION.
4. WHERE POSSIBLE, SILT FENCE SHALL BE PLACE ON THE FLATTEST AREA AVAILABLE.
5. WHERE POSSIBLE, VEGETATION SHALL BE PRESERVED FOR 5 FT. (OR AS MUCH AS POSSIBLE) UP–SLOPE FROM THE SILT FENCE. IF VEGETATION IS REMOVED, IT SHALL BE REESTABLISHED WITHIN 7 DAYS FROM THE INSTALLATION OF THE SILT FENCE.
6. THE HEIGHT OF THE SILT FENCE SHALL BE A MINIMUM OF 16 IN. ABOVE THE ORIGINAL GROUND SURFACE.
7. THE SILT FENCE SHALL BE PLACED IN A TRENCH CUT A MINIMUM OF 6 IN. DEEP . THE TRENCH SHALL BE CUT WITH A TRENCHER, CABLE LAYING MACHINE OR OTHER SUITABLE DEVICE WHICH WILL ENSURE AN ADEQUATELY UNIFORM TRENCH DEPTH.
8. THE SILT FENCE SHALL BE PLACED WITH THE STAKES ON THE DOWNSLOPE SIDE OF THE GEOTEXTILE AND SO THAT 8 IN. OF CLOTH ARE BELOW THE GROUND SURFACE. EXCESS MATERIAL SHALL LAY ON THE BOTTOM OF THE 6 IN. DEEP TRENCH. THE TRENCH SHALL BE BACKFILLED AND COMPACTED.
9. SEAMS BETWEEN SECTION OF SILT FENCE SHALL BE OVERLAPPED WITH THE END STAKES OF EACH SECTION WRAPPED TOGETHER BEFORE DRIVING INTO THE GROUND.
10. MAINTENANCE – SILT FENCE SHALL ALLOW RUNOFF TO PASS ONLY AS DIFFUSE FLOW THROUGH THE GEOTEXTILE. IF RUNOFF OVERTOPS THE SILT FENCE, FLOWS UNDER OR AROUND THE ENDS, OR IN ANY OTHER WAY BECOMES A CONCENTRATED FLOW, ONE OF THE FOLLOWING SHALL BE PERFORMED, AS APPROPRIATE: 1) THE LAYOUT OF THE SILT FENCE SHALL BE CHANGED, 2) ACCUMULATED SEDIMENT SHALL BE REMOVED, OR 3) OTHER PRACTICES SHALL BE INSTALLED.

CRITERIA FOR SILT FENCE MATERIALS:

1. FENCE POSTS – THE LENGTH SHALL BE A MINIMUM OF 32 IN. LONG. WOOD POSTS WILL BE 2–BY–2 IN. HARDWOOD OF SOUND QUALITY. THE MAXIMUM SPACING BETWEEN POSTS SHALL BE 10 FT.
2. SILT FENCE FABRIC (SEE CHART BELOW):
   1. INLET PROTECTION SHALL BE CONSTRUCTED EITHER BEFORE UP–SLOPE LAND DISTURBANCE BEGINS OR BEFORE THE STORM DRAIN BECOMES OPERATIONAL.
   2. THE EARTH AROUND THE INLET SHALL BE EXCAVATED COMPLETELY TO A DEPTH AT LEAST 18 IN.
   3. THE WOODED FRAME SHALL BE CONSTRUCTED OF 2–BY–4 IN. CONSTRUCTION–GRADE LUMBER. THE 2–BY–4 IN. POSTS SHALL BE DRIVEN 1 FT. INTO THE GROUND AT FOUR CORNERS OF THE INLET AND THE TOP PORTION OF 2–BY–4 IN. FRAME ASSEMBLED USING THE OVERLAP JOINT SHOWN. THE TOP OF THE FRAME SHALL BE AT LEAST 6 IN. BELOW ADJACENT ROADS IF PONDED WATER WOULD POSE A SAFETY HAZARD TO TRAFFIC.
   4. WIRE MESH SHALL BE OF SUFFICIENT STRENGTH TO SUPPORT FABRIC WITH WATER FULLY IMPOUNDED AGAINST IT. IT SHALL BE STRETCHED TIGHTLY AROUND THE FRAME AND FASTENED SECURELY TO THE FRAME.
   5. GEOTEXTILE SHALL HAVE AN EQUIVALENT OPENING SIZE OF 20–40 SIEVE AND BE RESISTANT TO SUNLIGHT. IT SHALL BE STRETCHED TIGHTLY AROUND THE FRAME AND FASTENED SECURELY. IT SHALL EXTEND FROM THE TOP OF THE FRAME TO 18 IN. BELOW THE INLET NOTCH ELEVATION. THE GEOTEXTILE SHALL OVERLAP ACROSS ONE SIDE OF THE INLET SO THE ENDS OF THE CLOTH ARE NOT FASTENED TO THE SAME POST.
   6. BACKFILL SHALL BE PLACED AROUND THE INLET IN COMPACTED 6 IN. LAYERS UNTIL THE EARTH IS EVEN WITH NOTCH ELEVATION ON ENDS AND TOP ELEVATION ON SIDES.
   7. A COMPACTED EARTH DIKE OR A CHECK DAM SHALL BE CONSTRUCTED IN THE DITCH LINE BELOW THE INLET IF THE INLET IS NOT IN A DEPRESSION AND IF RUNOFF BYPASSING THE INLET WILL NOT FLOW TO A SETTLING POND. THE TOP OF EARTH DIKES SHALL BE AT LEAST 6 IN. HIGHER THAN THE TOP OF THE FRAME.

DRAINAGE AREA:

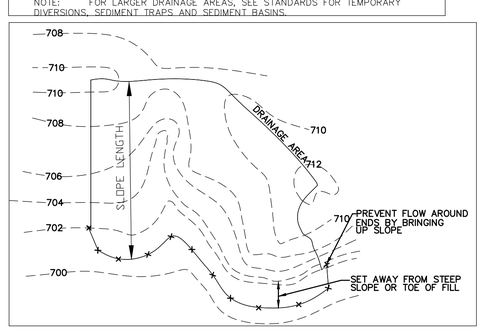
1. INLET PROTECTION SHALL BE CONSTRUCTED EITHER BEFORE UP–SLOPE LAND DISTURBANCE BEGINS OR BEFORE THE STORM DRAIN BECOME OPERATIONAL.
2. THE WOODED FRAME IS TO BE CONSTRUCTED OF 2–BY–4 IN. CONSTRUCTION–GRADE LUMBER. THE END SPACERS SHALL BE A MINIMUM OF 1 FT. BEYOND BOTH ENDS OF THE THROAT OPENING. THE ANCHORS SHALL BE NAILED TO 2–BY–4 IN. STAKES DRIVEN ON THE OPPOSITE SIDE OF THE CURB.
3. THE WIRE MESH SHALL BE OF SUFFICIENT STRENGTH TO SUPPORT FABRIC AND STONE. IT SHALL BE A CONTINUOUS PIECE WITH A MINIMUM WIDTH OF 30 IN. AND 4 FT. LONGER THAN THE THROAT LENGTH OF THE INLET, 2 FT. ON EACH SIDE.
4. GEOTEXTILE CLOTH SHALL HAVE AN EQUIVALENT OPENING SIZE (EOS) OF 20–40 SIEVE AND BE RESISTANT TO SUNLIGHT. IT SHALL BE AT LEAST THE SAME SIZE AS THE WIRE MESH.
5. THE WIRE MESH AND GEOTEXTILE CLOTH SHALL BE FORMED TO THE CONCRETE GUTTER AND AGAINST THE FACE OF THE CURB ON BOTH SIDE OF THE INLET AND SECURELY FASTENED TO THE 2–BY–4 IN. FRAME.
6. TWO–INCH STONE SHALL BE PLACED OVER THE WIRE MESH AND GEOTEXTILE IN SUCH A MANNER AS TO PREVENT WATER FROM ENTERING THE INLET UNDER OR AROUND THE GEOTEXTILE CLOTH.

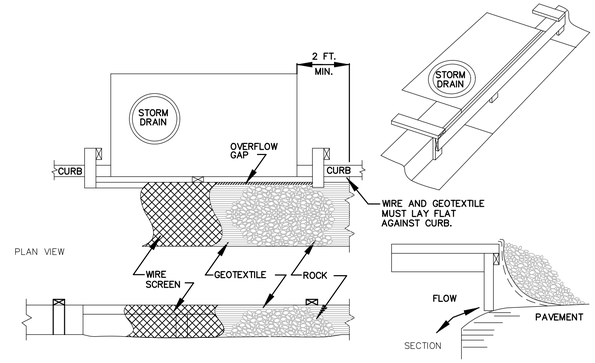
DISPERSING FLOW – PROPER APPLICATIONS OF SILT FENCE WILL ALLOW ALL THE INTERCEPTED RUNOFF TO PASS AS DIFFUSED FLOW THROUGH THE GEOTEXTILE. RUNOFF SHOULD NEVER OVERTOP SILT FENCE, FLOW AROUND THE ENDS, OR IN ANY OTHER WAY FLOW AS CONCENTRATED FLOW FROM THE PRACTICE. IF THIS DOES OCCUR, MAINTENANCE ALTERNATIVE SILT FENCE LAYOUT, OR OTHER PRACTICES ARE NEEDED.

SILT FENCE MAXIMUM DRAINAGE AREA BASED ON SLOPE AND SLOPE LENGTH

SLOPE		SLOPE LENGTH (FT.)
0% – 2%	FLATTER THAN 50:1	250
2% – 10%	50:1 – 10:1	125
10% – 20%	10:1 – 5:1	100
20% – 33%	5:1 – 3:1	75
33% – 50%	3:1 – 2:1	50
> 50%	> 2:1	25

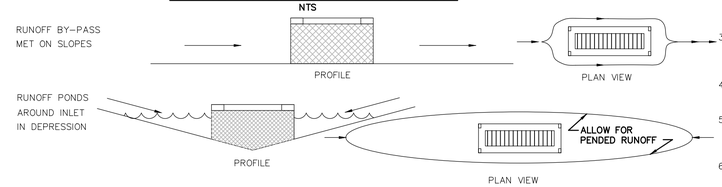
NOTE: FOR LARGER DRAINAGE AREAS, SEE STANDARDS FOR TEMPORARY DIVERSIONS, SEDIMENT TRAPS AND SEDIMENT BASINS.





CURB INLET PROTECTION

NTS



STORM DRAIN INLET PROTECTION

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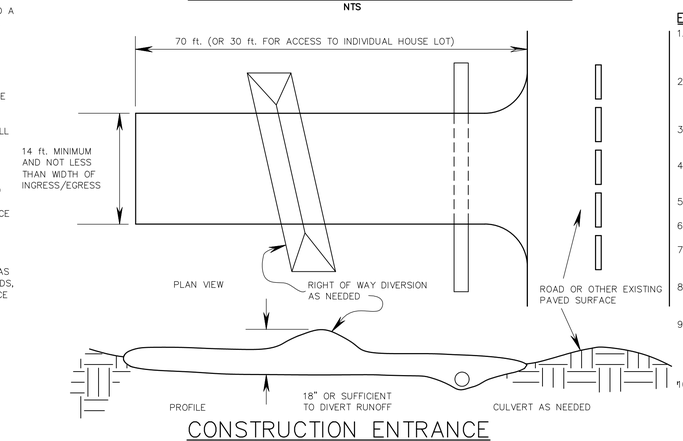


CONSTRUCTION ENTRANCE

NTS

CONSTRUCTION ENTRANCE

DESCRIPTION: A CONSTRUCTION ENTRANCE IS A STABILIZED PAD OF AGGREGATE OVER A GEOTEXTILE BASE AND IS USED TO REDUCE THE AMOUNT OF MUD TRACKED OFF–SITE WITH CONSTRUCTION TRAFFIC.

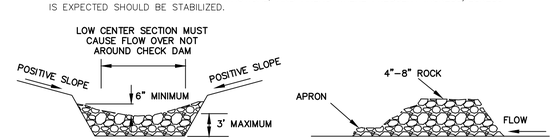
CONDITIONS WHERE PRACTICE APPLIES:

A CONSTRUCTION ENTRANCE SHOULD BE USED:

* WHERE CONSTRUCTION VEHICLES LEAVE ACTIVE CONSTRUCTION AREAS ONTO SURFACES WHERE RUNOFF IS NOT CHECKED BY SEDIMENT CONTROLS;
* AT ALL POINTS OF EGRESS TO PUBLIC ROADS;
* WHERE FREQUENT VEHICLES AND EQUIPMENT INGRESS/EGRESS IS EXPECTED SUCH AS AT THE AT THE ENTRANCE OF INDIVIDUAL BUILDING LOTS;

PLANNING CONSIDERATIONS:

THIS PRACTICE SHOULD NOT BE RELIED ON TO REMOVE MUD FROM CONSTRUCTION TRAFFIC. MOST MUD IS FLUNG FROM TIRES AS VEHICLES REACH SPEEDS HIGHER THAN IS REACHED ON SITE. THE BEST APPROACH TO PREVENTING OFF–SITE TRACKING IS TO KEEP VEHICLES THAT FREQUENTLY ENTER AND LEAVE A SITE, AWAY FROM MUDDY AREAS IN THE FIRST PLACE. VEHICLES SHOULD BE RESTRICTED TO STABILIZED AREAS TO THE EXTENT PRACTICAL, AND AREAS WHERE FREQUENT INGRESS/EGRESS IS EXPECTED SHOULD BE STABILIZED.



1. THE CHECK DAM SHALL BE CONSTRUCTED OF 4–8 INCH DIAMETER STONE, PLACED SO THAT IT COMPLETELY COVERS THE WIDTH OF THE CHANNEL.

2. THE TOP OF THE CHECK DAM SHALL BE CONSTRUCTED SO THAT THE CENTER IS APPROXIMATELY 6 INCHES LOWER THAN THE OUTER EDGES, SO WATER WILL FLOW ACROSS THE CENTER AND NOT AROUND THE ENDS.

3. THE MAXIMUM HEIGHT OF THE CHECK DAM AT THE CENTER OF THE WEIR SHALL NOT EXCEED 3 FOOT.

4. SPACING BETWEEN DAMS SHALL BE AS SHOWN IN THE PLANS.

CHECK DAM

NTS

STORM DRAIN INLET PROTECTION

DESCRIPTION:

STORM DRAIN INLET PROTECTION CONSISTS OF A GEOTEXTILE BARRIER SUPPORTED AROUND OR ACROSS A STORM DRAIN INLET. IT IS USED TO PREVENT SEDIMENT–LADED WATER FROM ENTERING A STORM DRAIN SYSTEM. IT REDUCES THE RATE AT WHICH SEDIMENT–LADEN WATER MAY ENTER AN INLET THEREBY CAUSING PONDING AND SETTLING OF SEDIMENT.

CONDITIONS WHERE PRACTICE APPLIES AND PLANNING CONSIDERATIONS:

THIS PRACTICE IS NOT GENERALLY RECOMMENDED AS A PRIMARY MEANS OF SEDIMENT CONTROL. IT SHOULD ONLY BE USED IF IT IS NOT POSSIBLE TO TEMPORARILY DIVERT THE STORM DRAIN OUTFALL INTO A SEDIMENT TRAP OR SEDIMENT BASIN OR IF IT IS TO BE USED ONLY FOR A SHORT PERIOD OF TIME DURING THE CONSTRUCTION PROCESS.

INLET PROTECTION IN EFFECT BLOCKS STORM DRAIN INLETS. THE RESULT FROM BLOCKING STORM DRAIN INLETS WILL HAVE ON THE SITE'S DRAINAGE MUST BE CONSIDERED. LONG SLOPING STREETS OR DITCHES DESIGNED WITH SEVERAL INLETS ALONG THEIR LENGTH MAY HAVE A SIGNIFICANT AMOUNT OF SURFACE FLOW ACCUMULATE IF INLET PROTECTION IS USED. IN LOW AREAS, A POND WILL FORM AROUND INLETS. PONDING IS NECESSARY FOR REMOVING SEDIMENT FROM RUNOFF AND SHOULD BE ENCOURAGED IN CONJUNCTION WITH INLET PROTECTION.

SPECIFICATIONS FOR CURB INLET PROTECTION:

1. INLET PROTECTION SHALL BE CONSTRUCTED EITHER BEFORE UPSLOPE LAND DISTURBANCE BEGINS OR BEFORE THE STORM DRAIN BECOMES OPERATIONAL.
2. THE WOODEN FRAME IS TO BE CONSTRUCTED OF 2–BY–4–IN. CONSTRUCTION–GRADE LUMBER. THE END SPACERS SHALL BE A MINIMUM OF 1 FT. BEYOND BOTH ENDS OF THE THROAT OPENING. THE ANCHORS SHALL BE NAILED TO 2–BY–4–IN. STAKES DRIVEN ON THE OPPOSITE SIDE OF THE CURB.
3. THE WIRE MESH SHALL BE OF SUFFICIENT STRENGTH TO SUPPORT FABRIC AND STONE. IT SHALL BE A CONTINUOUS PIECE WITH A MINIMUM WIDTH OF 30 IN. AND 4 FT. LONGER THAT THE THROAT LENGTH OF THE INLET, 2 FT. ON EACH SIDE.
4. GEOTEXTILE CLOTH SHALL HAVE AN EQUIVALENT OPENING SIZE (EOS) OF 20–40 SLEVE AND BE RESISTANT TO SUNLIGHT. IT SHALL BE AT LEAST THE SAME SIZE AS THE WIRE MESH.
5. THE WIRE MESH SHALL BE FORMED TO THE CONCRETE GUTTER AND AGAINST THE FACE OF THE CURB ON BOTH SIDES OF THE INLET AND SECURELY FASTENED TO THE 2–BY–4–IN. FRAME.
6. TWO–INCH STONE SHALL BE PLACED OVER THE WIRE MESH AND GEOTEXTILE IN SUCH A MANNER AS TO PREVENT WATER FROM ENTERING THE INLET UNDER OR AROUND THE GEOTEXTILE CLOTH.

EROSION NOTES

1. SEDIMENT PONDS/TRAPS AND PERIMETER CONTROLS SHALL BE IMPLEMENTED AS A FIRST STEP OF GRADING AND WITHIN 7 DAYS FROM THE START OF GRUBBING AND SHALL CONTINUE TO FUNCTION UNTIL UPLAND AREAS ARE STABILIZED.
2. DISTURBED AREAS WITHIN 50 FEET OF A STREAM, WHICH WILL REMAIN UNWORKED FOR A PERIOD OF 14 DAYS OR MORE, SHALL BE STABILIZED WITH SEEDING AND MULCHING OR OTHER APPROPRIATE MEANS WITHIN 2 DAYS.
3. DISTURBED AREAS WHICH WILL REMAIN UNWORKED FOR A PERIOD OF 14 DAYS OR MORE, SHALL BE STABILIZED WITH SEEDING AND MULCHING OR OTHER APPROPRIATE MEANS WITHIN 7 DAYS.
4. EROSION CONTROL BLANKETS WITH MATTING WILL BE USED ON DITCHES GREATER THAN 1.5% AND ALL OTHER SLOPES GREATER THAN 6% GRADE.
5. DISTURBED AREAS THAT WILL BE IDLE OVER WINTER SHALL BE STABILIZED PRIOR TO NOVEMBER 1.
6. NO SOLID OR LIQUID WASTE SHALL BE DISCHARGED INTO STORM WATER RUNOFF.
7. OFF–SITE VEHICLE TRACKING SEDIMENT SHALL BE MINIMIZED. CONSTRUCTION VEHICLES ARE LIMITED TO THE CONSTRUCTION ACCESS ROAD(S) NOTED ON THE PLAN.
8. ALL EROSION AND SEDIMENT CONTROL PRACTICES MUST MEET THE STANDARDS AND SPECIFICATIONS OF THE OHIO RAINWATER AND LAND DEVELOPMENT HANDBOOK (2006 or NEWEST EDITION).
9. OTHER EROSION AND SEDIMENT CONTROL ITEMS MAY BE NECESSARY DUE TO ENVIRONMENTAL CONDITIONS. A TEMPORARY COVERING OF STRAW MULCH OVER BARE GROUND THROUGHOUT THE DURATION OF THE PROJECT IS EFFECTIVE MEANS OF MINIMIZING EROSION. A STOCKPILE OF STRAW BALES SHOULD BE ON HAND.
10. REGULAR INSPECTION AND MAINTENANCE WILL BE PROVIDED FOR ALL EROSION AND SEDIMENT CONTROL PRACTICES. PERMANENT RECORDS OF MAINTENANCE AND INSPECTIONS MUST BE KEPT THROUGHOUT THE CONSTRUCTION PERIOD. INSPECTIONS MUST BE MADE A MINIMUM OF ONCE EVERY 7 DAYS AND IMMEDIATELY AFTER STORM EVENTS GREATER THAN 0.5 INCHES OF RAIN IN A 24–HOUR PERIOD. PROVIDE NAME OF INSPECTOR, MAJOR OBSERVATIONS, DATE OF INSPECTION AND CORRECTIVE MEASURES TAKEN.

SPECIFICATIONS FOR CONSTRUCTION ENTRANCE:

1. STONE SIZE––TWO–INCH STONE SHALL BE USED, OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH––THE CONSTRUCTION ENTRANCE SHALL BE AS LONG AS REQUIRED TO STABILIZE HIGH TRAFFIC AREAS BUT NOT LESS THAN 50 FT. (EXCEPT ON SINGLE RESIDENCE LOT WHERE A 30–FT. MINIMUM LENGTH APPLIES).
3. THICKNESS––THE STONE LAYER SHALL BE AT LEAST 6 IN. THICK.
4. WIDTH––THE ENTRANCE SHALL BE AT LEAST 10 FT. WIDE, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS AND EGRESS OCCURS.
5. BEDDING––A GEOTEXTILE SHALL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING STONE. IT SHALL HAVE A GRAB TENSILE STRENGTH OF AT LEAST 200 LB. AND A MULLEN BURST STRENGTH OF AT LEAST 190 LB.
6. CULVERT––A PIPE OR CULVERT SHALL BE CONSTRUCTED UNDER THE ENTRANCE IF NEEDED TO PREVENT SURFACE WATER FLOWING ACROSS THE ENTRANCE FROM BEING DIRECTED OUT ONTO PAVED SURFACES.
7. WATER BAR––A WATER BAR SHALL BE CONSTRUCTED AS PART OF THE CONSTRUCTION ENTRANCE IF NEEDED TO PREVENT SURFACE RUNOFF FROM FLOWING THE LENGTH OF THE CONSTRUCTION ENTRANCE AND OUT ONTO PAVED SURFACES.
8. MAINTENANCE––TOP DRESSING OF ADDITIONAL STONE SHALL BE APPLIED AS CONDITIONS DEMAND. MUD SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC ROADS, OR ANY SURFACE WHERE RUNOFF IS NOT CHECKED BY SEDIMENT CONTROLS, SHALL BE REMOVED IMMEDIATELY. REMOVAL SHALL BE ACCOMPLISHED BY SCRAPING OR SWEEPING.
9. CONSTRUCTION ENTRANCES SHALL NOT BE RELIED UPON TO REMOVE MUD FROM VEHICLES AND PREVENT OFF–SITE TRACKING. VEHICLES THAT ENTER AND LEAVE THE CONSTRUCTION–SITE SHALL BE RESTRICTED FROM MUDDY AREAS.

STATE OF OHIO
PROFESSIONAL ENGINEER
For Planning Commission Not for Construction

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LAND SURVEYING - ENGINEERING - DESIGN
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PHONE: (216) 491-2000 FAX: (216) 491-9640
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2023-186

PLAN REVISIONS:
5/12/2025
TREE INVENTORY

PAGE REVISIONS:

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LAUREL LAKE VILLA
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SWPPP

Ohio Utilities Protection Service
Call 811 before you dig

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C9.02

AREA REQUIRING TEMPORARY STABILIZATION	TIME FRAME FOR SEEDING
ANY DISTURBED AREA WITHIN 50' OF A STREAM AND NOT AT FINAL GRADE	WITHIN 2 DAYS OF THE MOST RECENT DISTURBANCE IF THE AREA WILL REMAIN IDLE FOR 14 DAYS OR MORE
DISTURBED AREAS THAT WILL BE DORMANT FOR MORE THAN 14 DAYS BUT LESS THAN 1 YEAR AND NOT WITHIN 50' OF A STREAM	WITHIN 7 DAYS OF THE MOST RECENT DISTURBANCE WITHIN THE AREA
DISTURBED AREAS THAT WILL BE IDLE OVER WINTER	PRIOR TO THE ONSET OF WINTER

TEMPORARY SEEDING MIXTURE

SEEDING DATES	SPECIES	LB./1,000 sq.ft.	per Acre
MARCH 1 TO AUGUST 15	OATS TALL FESCUE ANNUAL RYEGRASS	3 1 1	4 BUSHEL 40 LB 40 LB
	PERENNAIL RYEGRASS TALL FESCUE ANNUAL RYEGRASS	1 1 1	40 LB 40 LB 40 LB
AUGUST 15 TO NOVEMBER 1	RYE TALL FESCUE ANNUAL RYEGRASS	3 1 1	2 BUSHEL 40 LB 40 LB
	WHEAT TALL FESCUE ANNUAL RYEGRASS	1 1 1	2 BUSHEL 40 LB 40 LB
	PERENNIAL RYEGRASS TALL FESCUE ANNUAL RYEGRASS	1 1 1	40 LB 40 LB 40 LB
NOVEMBER 1 TO SPRING SEEDING USE MULCH ONLY, SODDING PRACTICES OR DORMANT SEEDING			

AREA REQUIRING PERMANENT STABILIZATION	TIME FRAME FOR SEEDING
ANY AREAS THAT WILL LIE DORMANT FOR 1 YEAR OR MORE	WITHIN SEVEN DAYS OF THE MOST RECENT DISTURBANCE
ANY AREAS WITHIN 50' OF A STREAM AND AT FINAL GRADE	WITHIN TWO DAYS OF REACHING FINAL GRADE
ANY OTHER AREAS AT FINAL GRADE	WITHIN SEVEN DAYS OF REACHING FINAL GRADE WITHIN THAT AREA

PERMANENT SEEDING MIXTURE

SEEDING DATES	SPECIES	LB./1,000 sq.ft.	per Acre
MARCH 15 TO OCTOBER 1	TALL FESCUE TURF-TYPE (DWARF FESCUE ANNUAL RYEGRASS	1 1	40-50 LBS 40 LB
	PERENNAIL RYEGRASS TALL FESCUE ANNUAL RYEGRASS	1 1 1	40 LB 40 LB 40 LB
AUGUST 15 TO NOVEMBER 1	RYE TALL FESCUE ANNUAL RYEGRASS	3 1 1	2 BUSHEL 40 LB 40 LB
	WHEAT TALL FESCUE ANNUAL RYEGRASS	1 1 1	2 BUSHEL 40 LB 40 LB
	PERENNIAL RYEGRASS TALL FESCUE ANNUAL RYEGRASS	1 1 1	40 LB 40 LB 40 LB
NOVEMBER 1 TO SPRING SEEDING USE MULCH ONLY, SODDING PRACTICES OR DORMANT SEEDING			

SWPPP AMENDMENT LOG

PROJECT NAME: _____ PAGE_____OF_____

SWPPP CONTACT: _____

AMENDMENT NO.	DESCRIPTION OF AMENDMENT	DATE OF AMENDMENT	AMENDMENT PREPARED BY (NAME & TITLE)

COPY AS NECESSARY

GRADING & STABILIZATION LOG

PROJECT NAME: _____

SWPPP CONTACT: _____

DATE GRADING ACTIVITY STARTED	DESCRIPTION OF GRADING ACTIVITY	DATE GRADING ACTIVITY CEASED	DATE STABILIZATION MEASURES	DESCRIPTION OF STABILIZATION MEASURES AND LOCATION

COPY AS NECESSARY

DUST CONTROL:

DESCRIPTION: DUST CONTROL INVOLVES PREVENTING OR REDUCING DUST FROM EXPOSED SOILS OR OTHER SOURCES DURING LAND DISTURBING, DEMOLITION, AND CONSTRUCTION ACTIVITIES TO REDUCE THE PRESENCE OF AIRBORNE SUBSTANCES WHICH MAY PRESENT HEALTH HAZARDS, TRAFFIC SAFETY PROBLEMS OR HARM ANIMAL OR PLANT LIFE.

CONDITIONS WHERE PRACTICE APPLIES AND PLANNING CONSIDERATIONS: IN AREAS SUBJECT TO SURFACE AND AIR MOVEMENT OF DUST WHERE ON-SITE AND OFF-SITE DAMAGE IS LIKELY TO OCCUR IF PREVENTATIVE MEASURES ARE NOT TAKEN.

DESIGN CRITERIA: A NUMBER OF MEASURES CAN BE UTILIZED TO LIMIT DUST EITHER DURING OR BETWEEN CONSTRUCTION STAGES OR ONCE CONSTRUCTION IS COMPLETE. GENERALLY THE SAME METHODS THAT ARE USED TO LIMIT EROSION BY LIMITING EXPOSURE OF SOILS TO RAINFALL CAN BE USED TO LIMIT DUST INCLUDING: STABILIZING EXPOSED SOILS WITH MULCH, VEGETATION OR PERMANENT COVER. ADDITIONAL METHODS PARTICULAR TO DUST CONTROL INCLUDING MANAGING VEHICLES AND CONSTRUCTION TRAFFIC, ROAD TREATMENT AND TREATMENT OF EXPOSED SOIL WITH CHEMICAL STABILIZERS.

USED OIL SHALL NOT BE USED AS A DUST SUPPRESSANT. DUST CONTROLS MAY INCLUDE THE USE OF WATER TRUCKS TO WET DISTURBED AREAS, TAPPING STOCKPILES, TEMPORARY STABILIZATION OF DISTURBED AREAS, AND REGULATION OF THE SPEED OF VEHICLES ON THE SITE.

SPECIFICATIONS FOR DUST CONTROL:

1. VEGETATIVE COVER AND/MULCH – APPLY TEMPORARY OR PERMANENT SEEDING AND MULCH TO AREAS THAT WILL REMAIN IDLE FOR OVER 14 DAYS. SAVING EXISTING TREES AND LARGE SHRUBS WILL ALSO REDUCE SOIL AND AIR MOVEMENT ACROSS DISTURBED AREAS.

2. WATERING – SPRAY SITE WITH WATER UNTIL THE SURFACE IS WET BEFORE AND DURING GRADING AND REPEAT AS NEEDED, ESPECIALLY ON HAUL ROADS AND OTHER HEAVY TRAFFIC ROUTES. WATERING SHALL BE DONE AT A RATE THAT PREVENTS DUST BUT DOES NOT CAUSE SOIL EROSION.

3. SPRAY-ON ADHESIVES – APPLY ADHESIVE ACCORDING TO THE FOLLOWING TABLE OR MANUFACTURERS' INSTRUCTIONS.

4. STONE – GRADED ROADWAYS AND OTHER SUITABLE AREAS WILL BE STABILIZED USING CRUSHED STONE OR COARSE GRAVEL AS SOON AS PRACTICABLE AFTER REACHING AN INTERIM OR FINAL GRADE. CRUSHED STONE OR COARSE GRAVEL CAN BE USED AS A PERMANENT COVER TO PROVIDE CONTROL OF SOIL EMISSIONS.

5. BARRIERS – EXISTING WINDBREAK VEGETATION SHALL BE MARKED AND PRESERVED. SNOW FENCING OR OTHER SUITABLE BARRIER MAY BE PLACED PERPENDICULAR TO PREVAILING AIR CURRENTS AT INTERVALS OF ABOUT 15 TIMES THE BARRIER HEIGHT TO CONTROL AIR CURRENTS AND BLOWING SOIL.

6. OPERATION AND MAINTENANCE – WHEN TEMPORARY DUST CONTROL MEASURES ARE USED; REPETITIVE TREATMENT SHOULD BE APPLIED AS NEEDED TO ACCOMPLISH CONTROL.

7. STREET CLEANING – PAVED AREAS THAT HAVE ACCUMULATED SEDIMENT FROM CONSTRUCTION SHOULD BE CLEANED DAILY, OR AS NEEDED, UTILIZING A STREET SWEEPER OR BUCKET-TYPE END LOADER OR SCRAPER.

ADDITIONAL CONSTRUCTION SITE POLLUTION CONTROLS
OHIO RAINWATER AND LAND DEVELOPMENT MANUAL (2006)

1. CONSTRUCTION PERSONNEL, INCLUDING SUBCONTRACTORS WHO MAY USE OR HANDLE HAZARDOUS OR TOXIC MATERIALS, SHALL BE MADE AWARE OF THE FOLLOWING GENERAL GUIDELINES REGARDING DISPOSAL AND HANDLING OF HAZARDOUS AND CONSTRUCTION WASTES:
   - PREVENT SPILLS
   - USE PRODUCTS UP
   - FOLLOW LABEL DIRECTIONS FOR DISPOSAL
   - REMOVE LIDS FROM EMPTY BOTTLES AND CAN WHEN DISPOSING IN TRASH
   - RECYCLE WASTES WHENEVER POSSIBLE
   - DON'T POUR INTO WATERWAYS, STORM DRAINS OR ONTO THE GROUND
   - DON'T POUR DOWN THE SINK, FLOOR DRAIN OR SEPTIC TANKS
   - DON'T BURY CHEMICALS OR CONTAINERS
   - DON'T BURN CHEMICALS OR CONTAINERS
   - DON'T MIX CHEMICALS TOGETHER
2. CONTAINERS SHALL BE PROVIDED FOR THE PROPER COLLECTION OF ALL WASTE MATERIAL INCLUDING CONSTRUCTION DEBRIS, TRASH, PETROLEUM PRODUCTS AND ANY HAZARDOUS MATERIALS USED ON SITE. CONTAINERS SHALL BE COVERED AND NOT LEAKING. ALL WASTE MATERIAL SHALL BE DISPOSED OF AT FACILITIES APPROVED FOR THAT MATERIAL. CONSTRUCTION DEMOLITION AND DEBRIS (CD&D) WASTE MUST BE DISPOSED OF AT AN OHIO EPA APPROVED CD&D LANDFILL AS REQUIRED BY OHIO REVISED CODE (OHC) 3714.
3. NO CONSTRUCTION RELATED WASTE MATERIAL ARE TO BE BURIED ON-SITE. BY EXCEPTION, CLEAN FILL (BRICKS, HARDENED CONCRETE SOIL) MAY BE UTILIZED IN A WAY WHICH DOES NOT ENCROACH UPON NATURAL WETLANDS, STREAMS OR FLOOD PLAINS OR RESULT IN THE CONTAMINATION OF WATER OF THE STATE.
4. HANDLING CONSTRUCTION CHEMICALS. MIXING, PUMPING, TRANSFERRING OR OTHER HANDLING OF CONSTRUCTION CHEMICALS SUCH AS FERTILIZER, LIME, ASPHALT, CONCRETE DYING COMPOUNDS, AND ALL OTHER POTENTIALLY HAZARDOUS MATERIALS SHALL BE PERFORMED IN AN AREA AWAY FROM ANY WATERCOURSE, DITCH OR STORM DRAIN.
5. EQUIPMENT FUELING AND MAINTENANCE. OIL CHANGING, ETC., SHALL BE PERFORMED AWAY FROM WATERCOURSES, DITCHES OR STORM DRAINS, IN AN AREA DESIGNATED FOR THAT PURPOSE. THE DESIGNATED AREA SHALL BE EQUIPPED FOR RECYCLING OIL AND CATCHING SPILLS. SECONDARY CONTAINMENT SHALL BE PROVIDED FOR ALL FUEL OIL STORAGE TANKS. THESE AREA MUST BE INSPECTED EVERY SEVEN DAYS AND WITHIN 24 HOURS OF A 0.5 INCH OR GREATER RAINFALL EVENT TO ENSURE THERE ARE NO EXPOSED MATERIAL WHICH WOULD CONTAMINATE STORM WATER. SITE OPERATORS MUST BE AWARE THAT SPILL PREVENTION CONTROL AND COUNTERMEASURES (SPCC) REQUIREMENTS MAY APPLY. AN SPCC PLAN IS REQUIRED FOR SITES WITH ONE SINGLE ABOVE GROUND TANK OF 600 GALLONS OR MORE, ACCUMULATIVE ABOVE GROUND STORAGE OF 1,330 GALLONS OR MORE OR 42,000 GALLONS OF UNDERGROUND STORAGE. CONTAMINATED SOILS MUST BE DISPOSED OF IN ACCORDANCE WITH ITEM 8.
6. CONCRETE WASH WATER SHALL NOT BE ALLOWED TO FLOW TO STREAM, DITCHES, STORM DRAINS OR ANY OTHER WATER CONVEYANCE. A SUMP OR PIT WITH NO POTENTIAL FOR DISCHARGE SHALL BE CONSTRUCTED IF NEEDED TO CONTAIN CONCRETE WASH WATER. FIELD TILE OR OTHER SUBSURFACE DRAINAGE STRUCTURES WITHIN 10 FT. OF THE SUMP SHALL BE CUT AND PLUGGED.
7. SPILL REPORTING REQUIREMENTS. SPILLS ON PAVEMENT SHALL BE ABSORBED WITH SAWDUST OR KITTY LITTER AND DISPOSED OF WITH THE TRASH AT A LICENSED SANITARY LANDFILL. HAZARDOUS OR INDUSTRIAL WASTES SUCH AS MOST SOLVENTS, GASOLINE, OIL-BASED PAINTS AND CEMENT CURING COMPOUNDS REQUIRE SPECIAL HANDLING. SPILL SHALL BE REPORTED TO OHIO EPA (1-800-282-9378). SPILL OF 25 GALLONS OR MORE OF PETROLEUM PRODUCTS SHALL BE REPORTED TO OHIO EPA, THE LOCAL FIRE DEPARTMENT AND THE LOCAL EMERGENCY PLANNING COMMITTEE WITHIN 30 MIN. OF THE DISCOVERY OF THE RELEASE. ALL SPILLS WHICH CONTACT WATERS OF THE STATE MUST BE REPORTED TO OHIO EPA.
8. CONTAMINATED SOILS. IF SUBSTANCES SUCH AS OIL, DIESEL FUEL, HYDRAULIC FLUID, ANTIFREEZE, ETC. ARE SPILLED, LEADED OR RELEASED ONTO THE SOIL, THE SOIL SHALL BE DUG UP AND DISPOSED OF A T A LICENSED SANITARY LANDFILL OR OTHER APPROVED PETROLEUM CONTAMINATED SOIL REMEDIATION FACILITY. (NOT A CONSTRUCTION/DEMOLITION DEBRIS LANDFILL). NOTE THAT STORM WATER RUN OFF ASSOCIATED WITH CONTAMINATED SOILS ARE NOT AUTHORIZED UNDER OHIO EPA'S GENERAL STORM WATER PERMIT ASSOCIATED WITH CONSTRUCTION ACTIVITIES.
9. OPEN BURNING. NO MATERIALS CONTAINING RUBBER, GREASE, ASPHALT OR PETROLEUM PRODUCTS; SUCH AS TIRES, AUTO PARTS, PLASTICS OR PLASTIC COATED WIRE MAY BE BURNED (OAC 3745-19). OPEN BURNING IS NOT ALLOWED IN RESTRICTED AREAS, WHICH ARE DEFINED AS:
   1) WITHIN CORPORATION LIMITS;
   2) WITHIN 1,000 FEET OUTSIDE A MUNICIPAL CORPORATION HAVE A POPULATION OF 1,000 TO 10,000;
   3) A ONE MILE ZONE OUTSIDE OF A CORPORATION OF 10,000 OR MORE.
   OUTSIDE RESTRICTED AREAS, NO OPEN BURNING IS ALLOWED WITHIN A 1,000 FEET OF AN INHABITED BUILDING ON ANOTHER PROPERTY. OPEN BURNING IS PERMISSIBLE IN A RESTRICTED AREA FOR: HEATING TAR, WELDING, SMUDGE POTS AND SIMILAR OCCUPATIONAL NEEDS, AND HEATING FOR WARMTH OR OUTDOOR BARBECUES. OUTSIDE OF RESTRICTED AREAS, OPEN BURNING IS PERMISSIBLE FOR LANDSCAPE OR LAND-CLEARING WASTES (PLANT MATERIAL, WITH PRIOR WRITTEN PERMISSION FROM OHIO EPA), AND AGRICULTURAL WASTES, EXCLUDING BUILDINGS.
10. DUST CONTROL OR DUST SUPPRESSANTS SHALL BE USED TO PREVENT NUISANCE CONDITIONS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND IN A MANNER, WHICH PREVENT A DISCHARGE TO WATERS OF THE STATE. SUFFICIENT DISTANCE MUST BE PROVIDED BETWEEN APPLICATIONS AND NEARBY BRIDGES, CATCH BASINS, AND OTHER WATERWAYS. APPLICATION (EXCLUDING WATER) MAY NOT OCCUR WHEN RAIN IS IMMINENT AS NOTED IN THE SHORT TERM FORECAST. USED OIL MAY NOT BE APPLIED FOR DUST CONTROL.
11. OTHER AIR PERMITTING REQUIREMENTS: CERTAIN ACTIVITIES ASSOCIATED WITH CONSTRUCTION WILL REQUIRE AIR PERMITS INCLUDING BUT NOT LIMITED TO : MOBILE CONCRETE BATCH PLANTS, MOBILE ASPHALT PLANTS, CONCRETE CRUSHERS, LARGE GENERATORS, ETC. THESE ACTIVITIES WILL REQUIRE SPECIFIC OHIO EPA AIR PERMITS FOR INSTALLATION AND OPERATION. OPERATORS MUST SEEK AUTHORIZATION FROM THE CORRESPONDING DISTRICT OF OHIO EPA. FOR DEMOLITION OF ALL COMMERCIAL SITES, A NOTIFICATION FOR RESTORATION AND DEMOLITION MUST BE SUBMITTED TO OHIO EPA TO DETERMINE IF ASBESTOS CORRECTIVE ACTIONS ARE REQUIRED.
12. PROCESS WASTE WATER/LEACHATE MANAGEMENT. OHIO EPA'S CONSTRUCTION GENERAL PERMIT ONLY ALLOWS THE DISCHARGE OF STORM WATER AND DOES NOT INCLUDE OTHER WASTE STREAMS/DISCHARGES SUCH AS VEHICLE AND/OR EQUIPMENT WASHING, ON-SITE SEPTIC LEACHATE, CONCRETE WASH-OUTS, WHICH ARE CONSIDERED PROCESS WASTEWATERS. ALL PROCESS WASTEWATERS MUST BE COLLECTED AND PROPERLY DISPOSED AT AN APPROVED DISPOSAL FACILITY. IN THE EVENT, LEACHATE OR SEPTAGE IS DISCHARGED; IT MUST BE ISOLATED FOR COLLECTION AND PROPER DISPOSAL AND CORRECTIVE ACTIONS TAKEN TO ELIMINATE THE SOURCE OF WASTE WATER.
13. A PERMIT TO INSTALL (PTI) IS REQUIRED PRIOR TO THE CONSTRUCTION OF ALL CENTRALIZED SANITARY SYSTEMS, INCLUDING SEWER EXTENSIONS, AND SEWERAGE SYSTEMS (EXCEPT THOSE SERVICE ONE, TWO AND THREE FAMILY DWELLINGS) AND POTABLE WATER LINES. PLANS MUST BE SUBMITTED AND APPROVED BY OHIO EPA. ISSUANCE OF AN OHIO EPA CONSTRUCTION GENERAL STORM WATER PERMIT DOES NOT AUTHORIZE THE INSTALLATION OF ANY SEWERAGE SYSTEM WHERE OHIO EPA HAS NOT APPROVED A PTI.
14. POTENTIALLY TURBID WATER MUST PASS THROUGH A FILTER BAG, SUMP PIT, OR OTHER SEDIMENT REMOVAL DEVICE PRIOR TO BEING DISCHARGED OFF-SITE.

PRE-CONSTRUCTION SWPPP MEETING

PRIOR TO CONSTRUCTION THE PERMITTEE SHALL INFORM ALL CONTRACTORS AND SUBCONTRACTORS INVOLVED WITH THE IMPLEMENTATION OF THE SWPPP AND OF THE TERMS AND CONDITIONS OF THE OHIO EPA CONSTRUCTION GENERAL PERMIT. THE PERMITTEE SHALL MAINTAIN A WRITTEN DOCUMENT CONTAINING SIGNATURES AS PROOF OF ACKNOWLEDGMENT OF THE CONDITIONS AND RESPONSIBILITIES OF THE SWPPP.

INSPECTION DURING CONSTRUCTION

REGULAR INSPECTION AND MAINTENANCE IS TO BE PROVIDED FOR ALL EROSION AND SEDIMENT CONTROL PRACTICES DURING CONSTRUCTION. PERMANENT RECORDS OF MAINTENANCE AND INSPECTIONS MUST BE KEPT THROUGHOUT THE CONSTRUCTION PERIOD AND FOR 3 YEARS AFTER TERMINATION OF CONSTRUCTION ACTIVITIES. INSPECTIONS BY QUALIFIED INSPECTION PERSONNEL MUST BE MADE A MINIMUM OF ONCE EVERY 7 DAYS AND IMMEDIATELY AFTER STORM EVENTS GREATER THEN 0.5 INCHES OF RAIN IN A 24-HOUR PERIOD. IF THE INSPECTION REVEALS THAT A CONTROL PRACTICE IS IN NEED OF REPAIR OR MAINTENANCE IS REQUIRED, IT MUST BE REPAIRED WITHIN 3 DAYS OF THE INSPECTION. SEDIMENT SETTLING PONDS MUST BE REPAIRED WITHIN 10 DAYS OF INSPECTION. INSPECTION REPORT SHALL PROVIDE NAME OF INSPECTOR, MAJOR OBSERVATIONS, DATE OF INSPECTION, CORRECTIVE MEASURES TAKEN TO COMPLY WITH THE REQUIREMENTS IN "RAINWATER & LAND DEVELOPMENT" (2006) AND SIGNED BY THE QUALIFIED INSPECTOR. MISSING BMPS REQUIRED BY THE SWPPP ARE REQUIRED TO BE INSTALLED WITHIN 10 DAYS OF THE INSPECTION. IF DURING INSPECTIONS IT IS DETERMINED THAT A BMP IS NOT EFFECTIVE AND THAT ANOTHER BMP IS NEEDED TO PROVIDE ADEQUATE CONTROL ON SITE, THE SWPPP SHALL BE AMENDED AND THE BMP SHALL BE INSTALLED WITHIN 10 DAYS FROM THE DATE OF INSPECTION.

IF SITE IS DORMANT FOR A LONG PERIOD AND IS STABILIZED A WAIVER REQUEST MAY BE SUBMITTED TO THE OHIO EPA TO REDUCE SITE INSPECTIONS TO A MONTHLY BASIS.

POST CONSTRUCTION

UPON COMPLETION OF SITE STABILIZATION, A NOTICE OF TERMINATION SHALL BE FILED WITH THE OHIO EPA. THE RESPONSIBLE PARTY SHALL COMPILE ALL INSPECTIONS, SIGN CERTIFICATION ON THE TITLE SHEET AND KEEP RECORDS FOR A MINIMUM OF 3 YEARS AFTER THE NOTICE OF TERMINATION WAS FILED.

POST CONSTRUCTION INSPECTION AND MAINTENANCE OF POST CONSTRUCTION BMPS SHALL BE THE RESPONSIBILITY OF THE DEVELOPMENT OWNER. INSPECTION SHALL BE DONE BY A CONTRACTOR SUITED FOR SUCH INSPECTIONS AND FUNDED BY THE DEVELOPMENT OWNER. CONTRACTOR SHALL REPORT FINDINGS DIRECTLY TO THE DEVELOPMENT OWNER.

STATE OF OHIO
PROFESSIONAL ENGINEER
For Planning Commission
Not for Construction

RIVERSTONE
LAND SURVEYING - ENGINEERING - DESIGN
3500 LAKESIDE AVENUE, SUITE 100
CLEVELAND - OHIO - 44114
PHONE: (216) 491-2000 FAX: (216) 491-9640
WWW.RIVERSTONESURVEY.COM

2023-186

PLAN REVISIONS:
5/12/2025
TREE INVENTORY

PAGE REVISIONS:

ISSUED FOR:
PC APPLICAITON
3/17/25
NOT FOR CONSTRUCTION

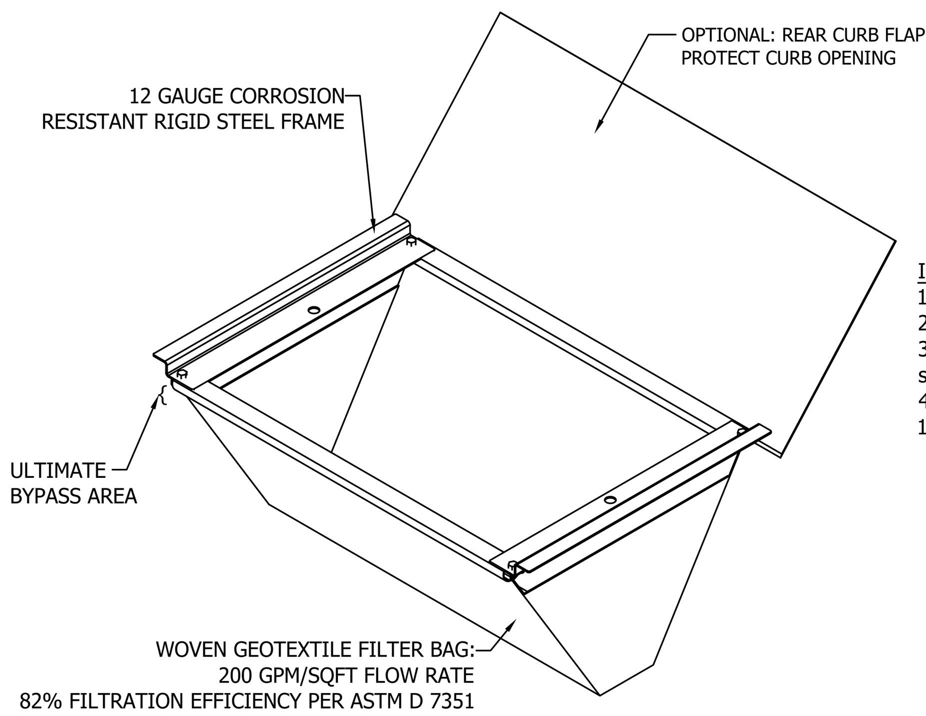
LAUREL LAKE VILLA
200 LAUREL LAKE DRIVE

SWPPP

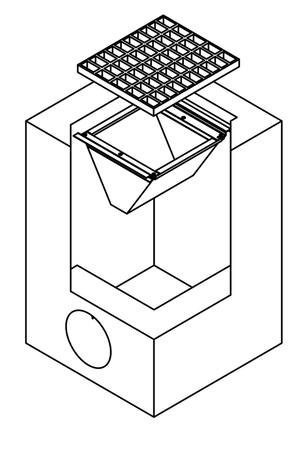
Ohio Utilities Protection Service
Call 811 before you dig

OGPUPS
Ohio Oil & Gas Producers Underground Protection Service
Call (614) 715-2984 or 811

C9.03



Installation Instructions:
1. Remove grate from the drainage structure
2. Clean stone and dirt from ledge (lip) of drainage structure
3. Drop the FLEXSTORM inlet filter through the clear opening such that the hangers rest firmly on the lip of the structure.
4. Replace the grate and confirm it is not elevated more than 1/8", the thickness of the steel hangers.



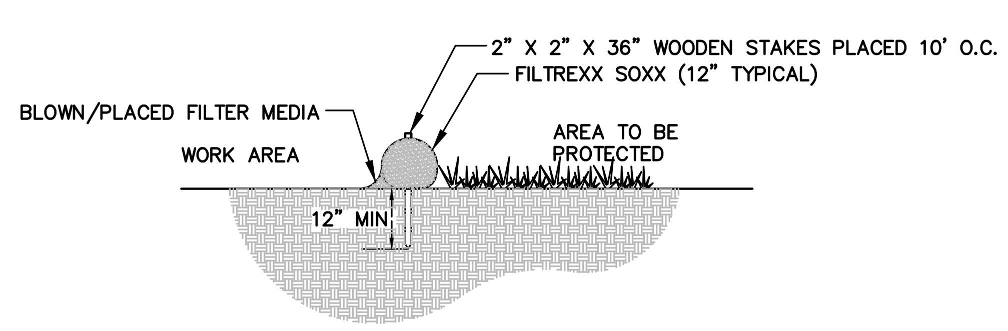
Meets ASTM D8057 standards

FLEXSTORM FX FABRIC SPECS

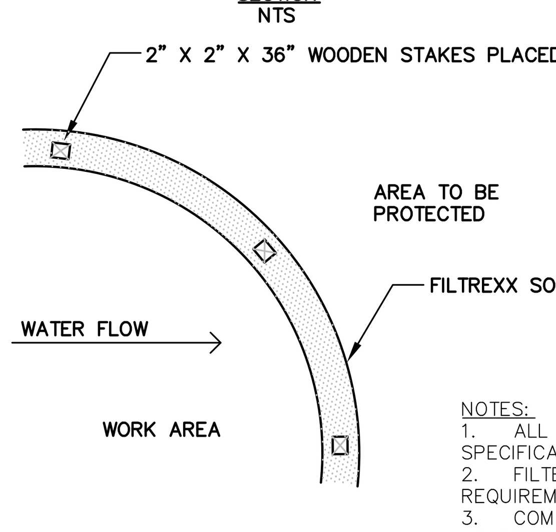
WOVEN GEOTEXTILE FILTER BAG PROPERTIES (MINIMUM AVERAGE ROLL VALUES)			
PROPERY	TESTMETHOD	ENGLISH	METRIC
MECHANICAL			
TENSILE STRENGHTH	ASTM D4632	350 X 225 LBS	1557 X 1001 N
ELONGATION	ASTM D4632	20% X 15%	20% X 15%
CBR PUNCTURE	ASTM D6241	1000 LBS	4448 N
TRAPEZOIDAL TEAR	ASTM D4533	110 X 75 LBS	483 X 334 N
ENDURANCE			
UV RESISTANCE	ASTM D4355	90%	90%
% RETAINED AT 500 HRS			
HYDROLIC			
APPARRENT OPENING SIZE (AOS)	ASTM D4751	20 US STD SIEVE	.850 MM
PERCENT OPEN AREA (POA)	CW–02215 MOD[1]	17%	17%
PERMITTIVITY	ASTM D4491	$1.5\ SEC^{-1}$	$1.5\ SEC^{-1}$
WATER FLOW RATE	ASTM D4491	$200GAL/MIN/FT^2$	$8145\ L/MIN/M^2$

Product Features
-Rigid frame and removable geosynthetic bag
-Sized to meet treatment flow rate.
-Bag maintains shape to be extracted when completely filled with sediement
-Rigid frame capable of supporting full load of sediment without deforming.
-Does not interfere or elevate grate by more than 1/8"
-Bypass flow exceeds design flow of drainage location
-Filter bag achieves +80% gross removal efficiency per ASTM D7351.

ADS FLEXSTORM CATCH-IT LITE ASTM D8057



SECTION
NTS



PLAN
NTS

NOTES:
1. ALL MATERIALS TO MEET FILTREXX SPECIFICATIONS.
2. FILTER MEDIA. FILL TO MEET APPLICATION REQUIREMENTS.
3. COMPOST MATERIAL TO BE DISPERSED ON SITE, AS DETERMINED BY ENGINEER.

FILTREXX SEDIMENT CONTROL
NTS

Concrete Washout Areas

Installation:
1. Concrete wash water shall not be allowed to flow to streams, ditches, storm drains, or any other water conveyance and washout pits shall be situated a minimum of fifty (50) feet from them.
2. Field tile or other subsurface drainage structures within 10 ft. of the sump shall be cut and plugged.
3. Ensure a stable path is provided for concrete trucks to reach the washout area.
4. A highly visible sign that reads "Concrete Washout Area" shall be erected adjacent to the washout pit.
5. Surface runoff generated from upslope areas shall be diverted away from below–grade washout pits so as not to flow into them.
6. A single centralized washout area may be utilized for multiple sublots.

Maintenance:
7. The washout pit must be inspected frequently to ensure the liner is intact.
8. Once 75% of the original volume of the washout pit is filled or is the liner is torn, the material must be removed and properly disposed of once it is completely hardened. Once the hardened concrete is removed, the liner must be replaced (if torn). A new pit must be constructed if the original structure is no longer suitable.

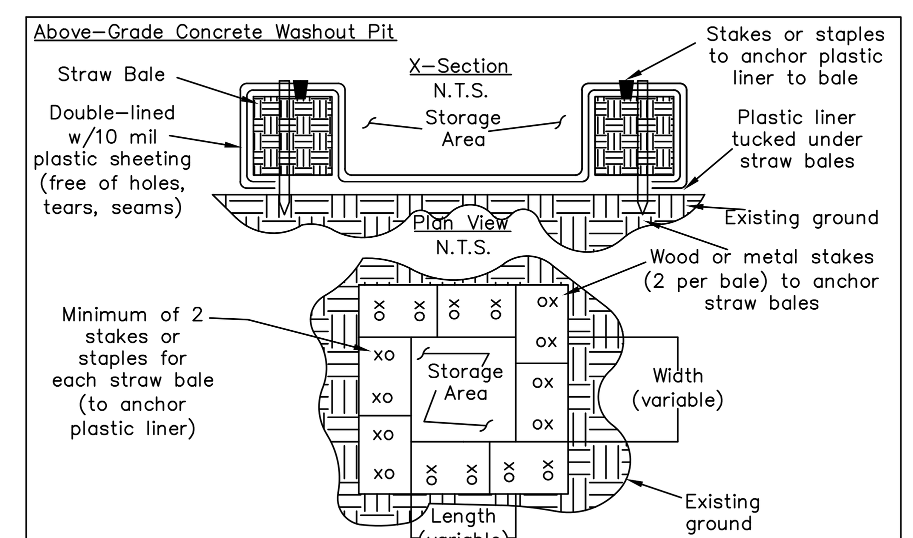
Removal:
9. Once the washout pit is no longer needed, ensure all washout material has been completely hardened, then remove and properly dispose of all materials. If straw bales were used, they can be spread as mulch.
10. Prefabricated containers specifically designed for concrete washout collection may be used subject to prior approval by the Community Engineer. Follow the manufacturer's suggestions for installation, maintenance and removal procedures.

Sizing of Concrete Washout Pits

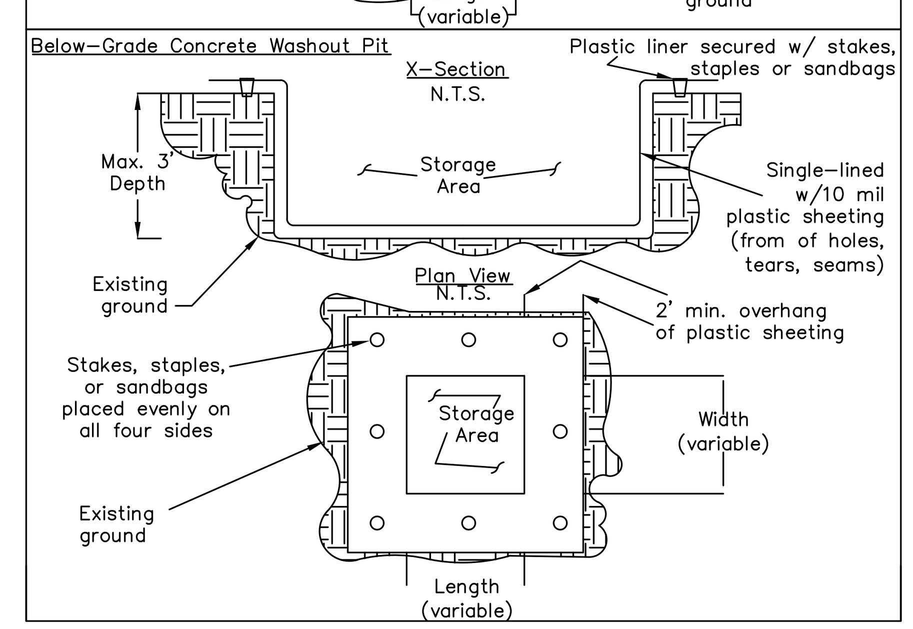
Below–grade (3–ft depth)			Above–grade (2–ft depth)		
# of concrete trucks expected to be washed out on site*	Width (ft)	Length (ft)	# of concrete trucks expected to be washed out on site*	Width (ft)	Length (ft)
2–3	3	3	2	3	3
			3–4	4	4
4–5	4	4	5–6	5	5
6–7	5	5	7–8	6	6
8–10	6	6	9–11	7	7
11–14	7	7	12–15	8	8

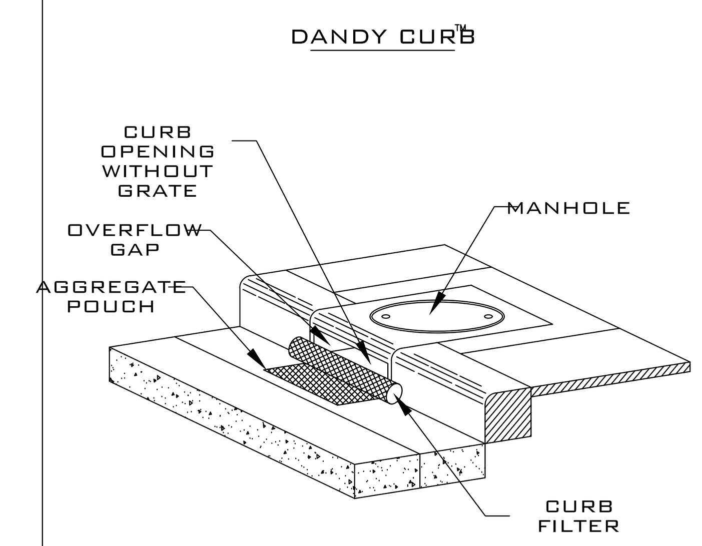
*For small projects using a maximum of only one truckload of concrete or utilizing on–site mixing, rinsing of equipment may take place on the lot without a pit, provided it can be done on a maximum of fifty (50) feet away from any water conveyances

Above–Grade Concrete Washout Pit



Below–Grade Concrete Washout Pit





DETAIL OF CURB INLET SEDIMENT CONTROL DEVICE WITH CURB FILTER

PROJECT:		DR. BY:
CITY/STATE:	DATE:	DR. NO:

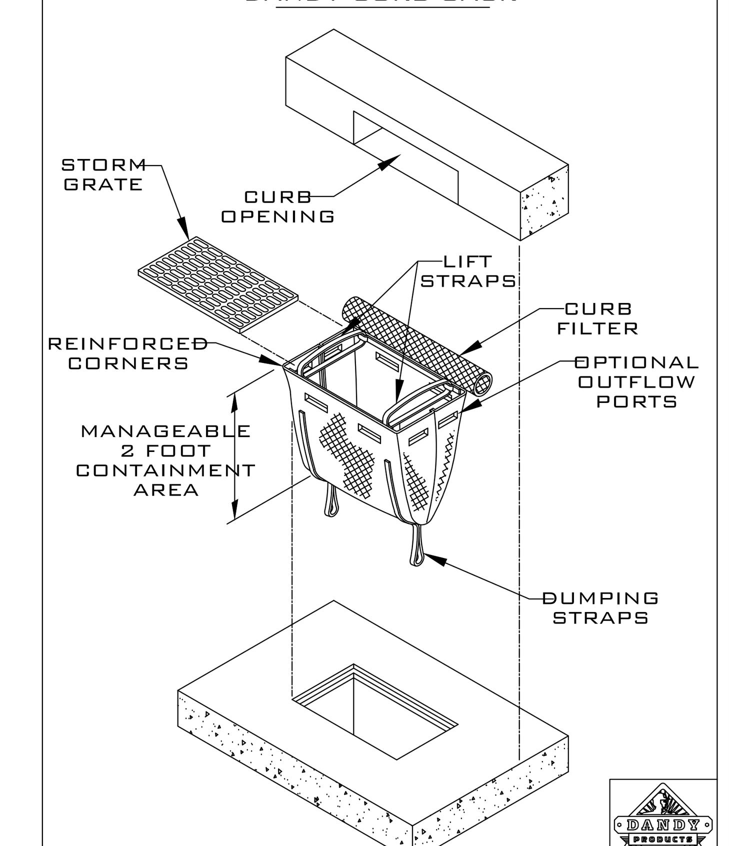
DANDY CURB™
SPECIFICATIONS

NOTE: THE DANDY CURB™ WILL BE **MANUFACTURED IN THE U.S.A.** FROM A WOVEN MONOFILAMENT FABRIC THAT MEETS OR EXCEEDS THE FOLLOWING SPECIFICATIONS:

DANDY CURB™ (SAFETY ORANGE)

Mechanical Properties	Test Method	Units	MARV
Grab Tensile Strength	ASTM D 4632	kN (lbs)	1.62 (365) X 0.89 (200)
Grab Tensile Elongation	ASTM D 4632	%	24 X 10
Puncture Strength	ASTM D 4833	kN (lbs)	0.40 (90)
Mullen Burst Strength	ASTM D 3786	kPa (psi)	3097 (450)
Trapezoid Tear Strength	ASTM D 4533	kN (lbs)	0.51 (115) X 0.33 (75)
UV Resistence	ASTM D 4355	%	90
Apparent Opening Size	ASTM D 4751	Mm (US Std Sieve)	0.425 (40)
Flow Rate	ASTM D 4491	$1/min/m^2$ $(gal/min/ft^2)$	5907 (145)
Permittivity	ASTM D 4491	Sec^{-1}	2.1

*Note: All Dandy Curbs™ can be ordered with our optional oil absorbents



DETAIL OF INLET SEDIMENT CONTROL DEVICE WITH CURB FILTER

PROJECT:		DR. BY:
CITY/STATE:	DATE:	DR. NO:

DANDY CURB SACK™
SPECIFICATIONS

NOTE: THE DANDY CURB SACK™ WILL BE **MANUFACTURED IN THE U.S.A.** FROM A WOVEN MONOFILAMENT FABRIC THAT MEETS OR EXCEEDS THE FOLLOWING SPECIFICATIONS:

REGULAR FLOW DANDY CURB SACK™ (BLACK)

Mechanical Properties	Test Method	Units	MARV
Grab Tensile Strength	ASTM D 4632	kN (lbs)	1.78 (400) x 1.40 (315)
Grab Tensile Elongation	ASTM D 4632	%	15 x 15
Puncture Strength	ASTM D 4833	kN (lbs)	0.67 (150)
Mullen Burst Strength	ASTM D 3786	kPa (psi)	5506 (800)
Trapezoid Tear Strength	ASTM D 4533	kN (lbs)	0.67 (150) x 0.73 (165)
UV Resistence	ASTM D 4355	%	90
Apparent Opening Size	ASTM D 4751	Mm (US Std Sieve)	0.425 (40)
Flow Rate	ASTM D 4491	$1/min/m^2$ $(gal/min/ft^2)$	2852 (70)
Permittivity	ASTM D 4491	Sec^{-1}	0.90

HI–FLOW DANDY CURB SACK™ (SAFETY ORANGE)

Mechanical Properties	Test Method	Units	MARV
Grab Tensile Strength	ASTM D 4632	kN (lbs)	1.62 (365) X 0.89 (200)
Grab Tensile Elongation	ASTM D 4632	%	24 X 10
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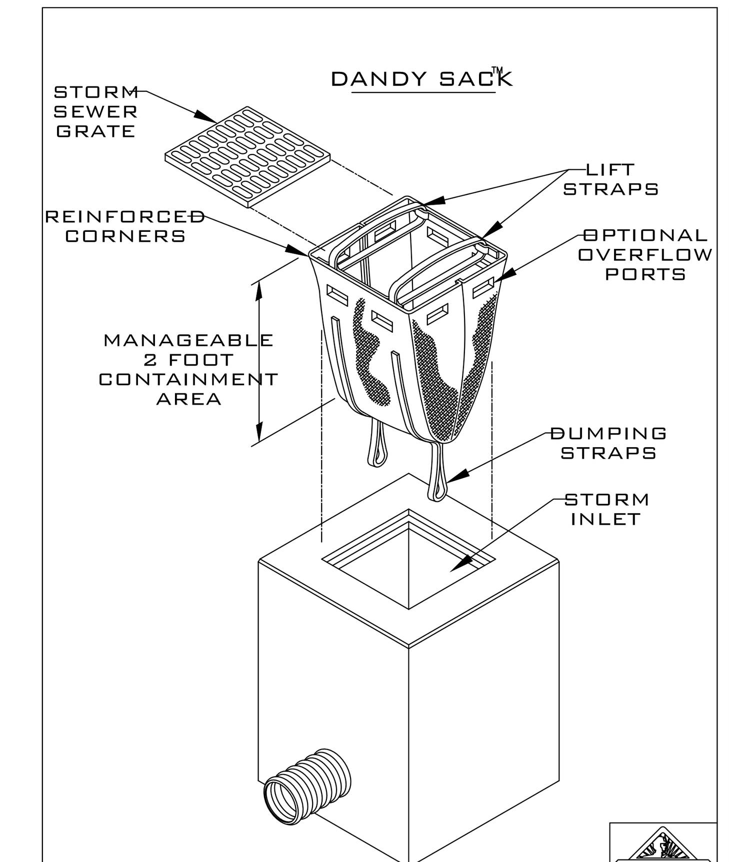
*Note: All Dandy Sacks™ can be ordered with our optional oil absorbent pillows



DETAIL OF INLET SEDIMENT CONTROL DEVICE

PROJECT:		DR. BY:
CITY/STATE:	DATE:	DR. NO:

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STATE OF OHIO
DAVID A. PIRRANSONE
E-61736
REGISTERED
PROFESSIONAL ENGINEER
For Planning Commision
Not for Construction

RIVERSTONE
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3800 LAKESIDE AVENUE - SUITE 100
CLEVELAND - OHIO - 44114
PHONE: (216) 491-2000 FAX: (216) 491-9640
WWW.RIVERSTONESURVEY.COM

2023-186

Plan Revisions:
5/12/2025
Tree Inventory

Page Revisions:

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LAUREL LAKE VILLA
200 LAUREL LAKE DRIVE

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