

TAG	SCIENTIFIC NAME	COMMON NAME	DBH	Multi Note	CONDITION	SAVE/REMOVE	Exclusions		TAG	SCIENTIFIC NAME	COMMON NAME	DBH	Multi Note	CONDITION	SAVE/REMOVE	Exclusions		TAG	SCIENTIFIC NAME	COMMON NAME	DBH	Multi Note	CONDITION	SAVE/REMOVE	Exclusions		TAG	SCIENTIFIC NAME	COMMON NAME	DBH	Multi Note	CONDITION	SAVE/REMOVE	Exclusions						
							GOOD									GOOD																								
1536	Ulmus spp.	Elm	7		GOOD	SAVE	Outside Easement			1597	Prunus serotina	Black Cherry	5		GOOD	SAVE	Outside Easement			1897	Populus deltoides	Cottonwood	14		GOOD	SAVE	Outside Easement			1989	Populus deltoides	Cottonwood	16		GOOD	SAVE	Outside Easement			
1537	Ulmus spp.	Elm	14		GOOD	SAVE	Outside Easement			1598	Carya ovata	Shagbark Hickory	10		GOOD	Remove				1898	Populus deltoides	Cottonwood	12		GOOD	SAVE	Outside Easement			1990	Ulmus spp.	Elm	7		GOOD	SAVE	Outside Easement			
1538	Ulmus spp.	Elm	26		GOOD	SAVE	Outside Easement			1599	Ulmus spp.	Elm	14		GOOD	Remove				1899	Populus deltoides	Cottonwood	8		GOOD	SAVE	Outside Easement			1991	Ulmus spp.	Elm	7		GOOD	SAVE	Outside Easement			
1539	Acer spp.	Maple	16		GOOD	SAVE	Outside Easement			1600	Prunus serotina	Black Cherry	10		GOOD	Remove				1900	Ulmus spp.	Elm	7		GOOD	SAVE	Outside Easement			1992	Ulmus spp.	Elm	9		GOOD	SAVE	Outside Easement			
1540	Acer spp.	Maple	26		GOOD	SAVE	Outside Easement			1601	Quercus rubra	Red Oak	12		GOOD	Remove				1901	Populus deltoides	Cottonwood	7		(2) 12"	GOOD	SAVE	Outside Easement			1993	Malus spp.	Apple	8		GOOD	SAVE	Outside Easement		
1541	Robinia pseudoacacia	Locus	8		GOOD	SAVE	Outside Easement			1602	Prunus serotina	Black Cherry	6		GOOD	Remove				1902	Populus deltoides	Cottonwood	14		GOOD	SAVE	Outside Easement			1994	Ulmus spp.	Elm	11		GOOD	SAVE	Outside Easement			
1542	Robinia pseudoacacia	Locus	7		GOOD	SAVE	Outside Easement			1603	Carya ovata	Shagbark Hickory	28		GOOD	Remove				1903	Populus deltoides	Cottonwood	18		GOOD	SAVE	Outside Easement			1995	Acer spp.	Maple	10		GOOD	SAVE	Outside Easement			
1543	Acer rubrum	Red Maple	26		GOOD	SAVE	Outside Easement			1604	Acer negundo	Box Elder	14		GOOD	Remove				1904	Populus deltoides	Cottonwood	18		GOOD	SAVE	Outside Easement			1996	Ulmus spp.	Elm	9		GOOD	SAVE	Outside Easement			
1544	Acer rubrum	Red Maple	26		GOOD	SAVE	Outside Easement			1605	Carya ovata	Shagbark Hickory	8		GOOD	Remove				1905	Populus deltoides	Cottonwood	11		GOOD	SAVE	Outside Easement			1997	Acer spp.	Maple	8		GOOD	SAVE	Outside Easement			
1545	Acer rubrum	Red Maple	20		GOOD	SAVE	Outside Easement			1606	Carya ovata	Shagbark Hickory	10		GOOD	Remove				1906	Populus deltoides	Cottonwood	11		GOOD	SAVE	Outside Easement			1998	Acer spp.	Maple	7		GOOD	SAVE	Outside Easement			
1546	Ulmus spp.	Elm	8		GOOD	SAVE	Outside Easement			1607	Carya ovata	Shagbark Hickory	14		GOOD	Remove				1907	Populus deltoides	Cottonwood	14		GOOD	SAVE	Outside Easement			1999	Populus deltoides	Cottonwood	5		GOOD	SAVE	Outside Easement			
1547	Ulmus spp.	Elm	10		GOOD	SAVE	Outside Easement			1608	Carya ovata	Shagbark Hickory	12		GOOD	Remove				1908	Populus deltoides	Cottonwood	20		GOOD	SAVE	Outside Easement			2000	Populus deltoides	Cottonwood	12		GOOD	SAVE	Outside Easement			
1548	Tilia americana	Basswood	34	(3) 6", 12", 16"	GOOD	SAVE	Outside Easement			1609	Carya ovata	Shagbark Hickory	7		GOOD	Remove				1909	Populus deltoides	Cottonwood	18		GOOD	SAVE	Outside Easement			2001	Malus spp.	Apple	26	(3) 7", 8", 11"	GOOD	SAVE	Outside Easement			
1549	Meru ssp.	Mulberry	12		GOOD	SAVE	Outside Easement			1610	Prunus serotina	Black Cherry	10		GOOD	Remove				1910	Populus deltoides	Cottonwood	14		GOOD	SAVE	Outside Easement			2002	Acer spp.	Maple	8		GOOD	SAVE	Outside Easement			
1550	Acer negundo	Box Elder	26		GOOD	SAVE	Outside Easement			1611	Ulmus spp.	Elm	14		GOOD	Remove				1911	Populus deltoides	Cottonwood	10		GOOD	SAVE	Outside Easement			2003	Acer spp.	Maple	10		GOOD	SAVE	Outside Easement			
1551	Acer spp.	Maple	9		GOOD	SAVE	Outside Easement			1612	Fraxinus spp.	Ash	7		POOR	Remove				1912	Populus deltoides	Cottonwood	14		GOOD	SAVE	Outside Easement			2004	Acer spp.	Maple	7		GOOD	SAVE	Outside Easement			
1552	Ulmus spp.	Elm	8		GOOD	SAVE	Outside Easement			1613	Populus deltoides	Cottonwood	15		GOOD	Remove				1913	Populus deltoides	Cottonwood	20		GOOD	SAVE	Outside Easement			2005	Ulmus spp.	Elm	7		POOR	SAVE	Outside Easement			
1553	Ulmus spp.	Elm	9		GOOD	SAVE	Outside Easement			1614	Fraxinus spp.	Ash	7		GOOD	Remove				1914	Populus deltoides	Cottonwood	11		GOOD	SAVE	Outside Easement			2006	Acer spp.	Maple	13		GOOD	SAVE	Outside Easement			
1554	Ulmus spp.	Elm	15		GOOD	SAVE	Outside Easement			1615	Fraxinus spp.	Ash	6		GOOD	Remove				1915	Populus deltoides	Cottonwood	9		GOOD	SAVE	Outside Easement			2007	Acer spp.	Maple	6		GOOD	SAVE	Outside Easement			
1555	Ulmus spp.	Elm	8		GOOD	SAVE	Outside Easement			1616	Fraxinus spp.	Ash	7		GOOD	Remove				1916	Populus deltoides	Cottonwood	6		GOOD	SAVE	Outside Easement			2008	Acer spp.	Maple	16	(3) 3", 5", 8"	GOOD	SAVE	Outside Easement			
1556																																								

THE LOCATION OF EXISTING
UNDERGROUND UTILITIES IS UNKNOWN
IN AN APPROXIMATE WAY ONLY AND
HAVE NOT BEEN INDEPENDENTLY
VERIFIED BY THE CONTRACTOR OR ITS
REPRESENTATIVE. THE CONTRACTOR
SHALL BE RESPONSIBLE FOR LOCATING
LOCATION OF ALL EXISTING UTILITIES
MORE COMMENCING WORK, AND
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ANY AND ALL DAMAGES WHICH
MAY BE CAUSED BY THE CONTRACTOR
CONTRACTOR'S FAILURE TO EXACTLY
LOCATE AND PRESERVE ANY AND
ALL UNDERGROUND UTILITIES.



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ENGINEER SHALL BE HELD LIABLE FOR
ANY LOSS OR DAMAGE TO PROPERTY
OR PERSONAL INJURY OR DEATH
CAUSED BY THE CONTRACTOR'S
FAILURE TO LOCATE AND PRESERVE
THE LOCATION OF EXISTING
UNDERGROUND UTILITIES.

CONTRACTOR'S FAILURE TO EXACTLY
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SECTION 15

TOWN 3 NORTH, RANGE 11 EAST

CITY OF ROCHESTER HILLS

OAKLAND COUNTY, MICHIGAN

DATE: 10-25-2019

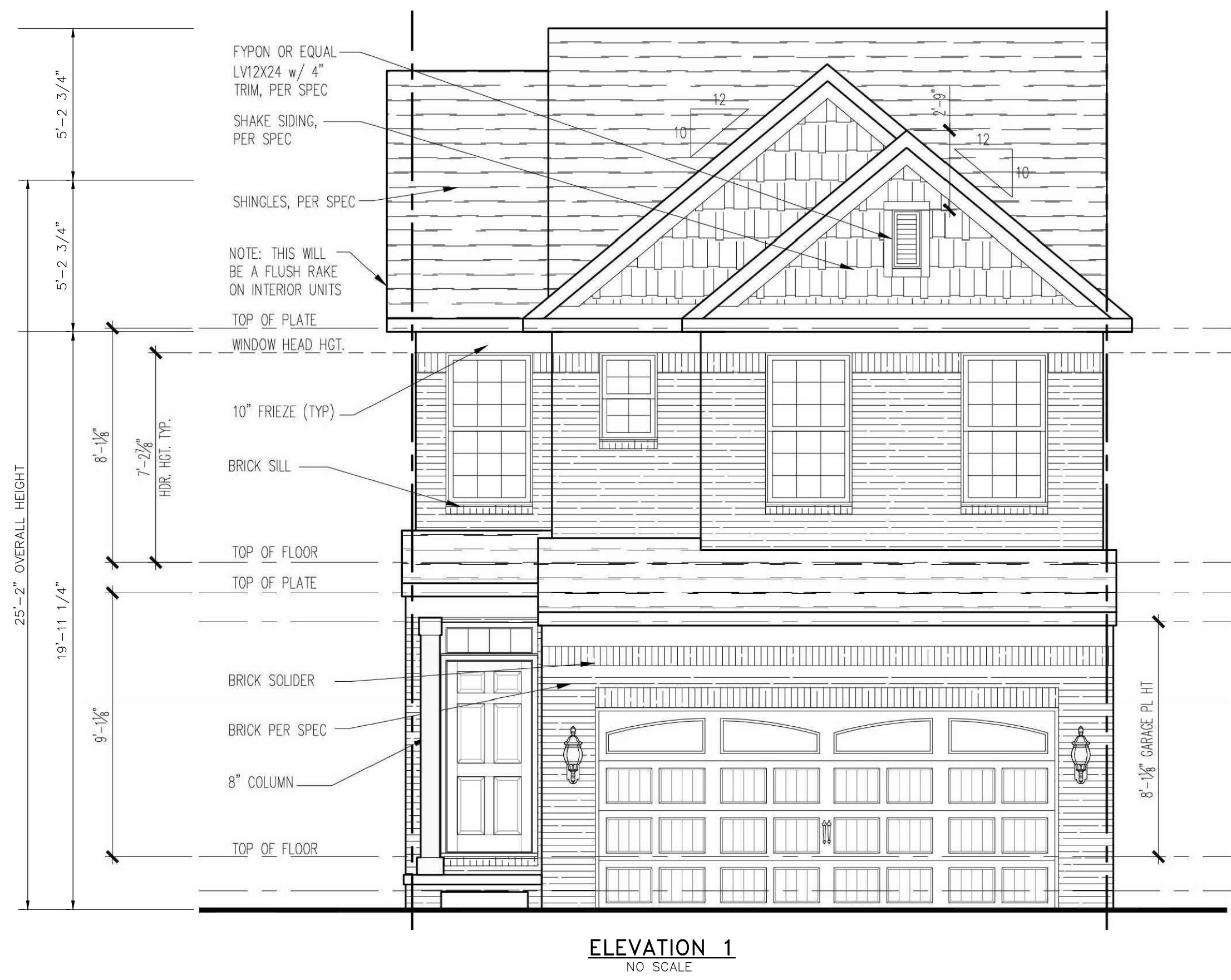
REVISIONS

12-11-19 PER CITY

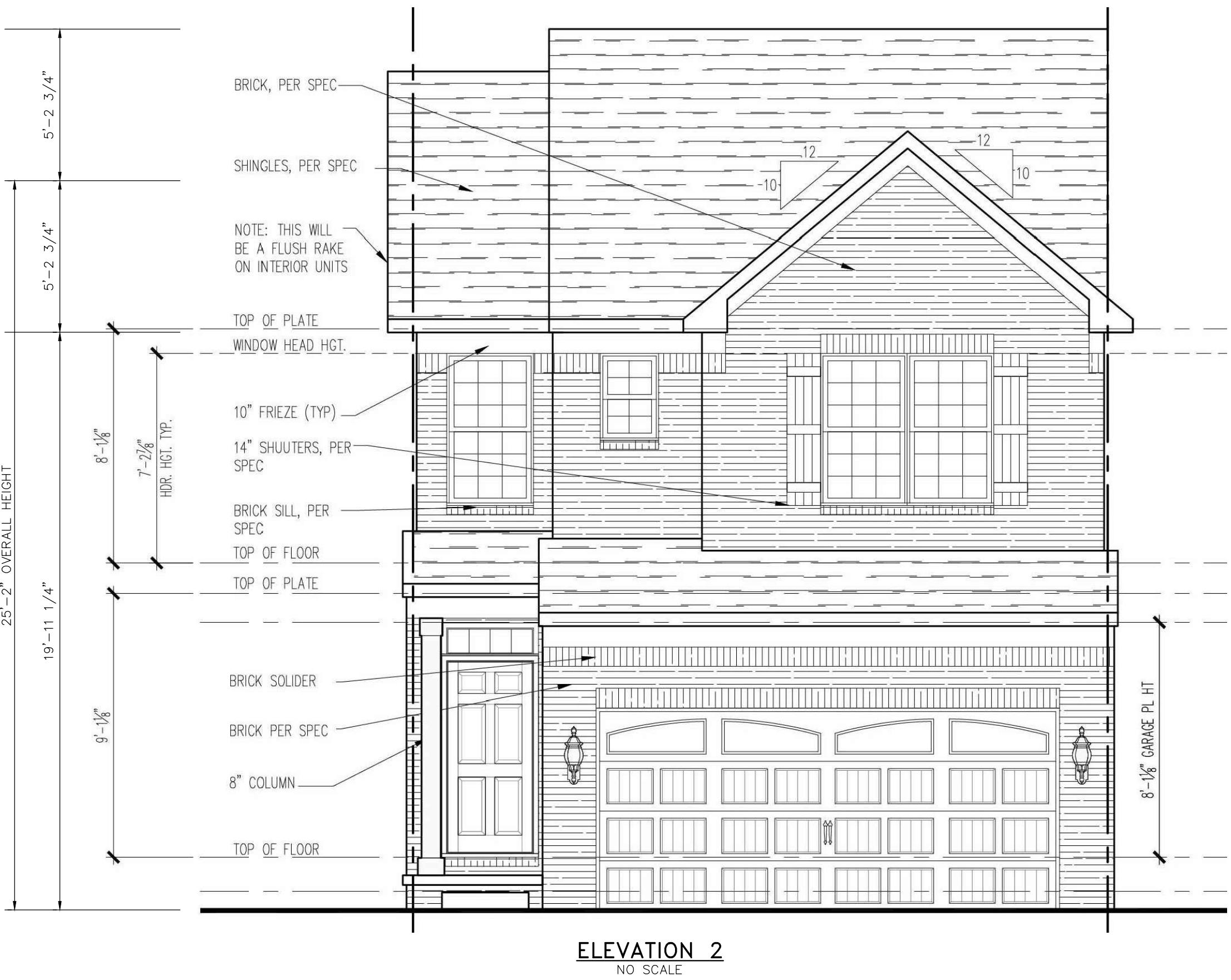
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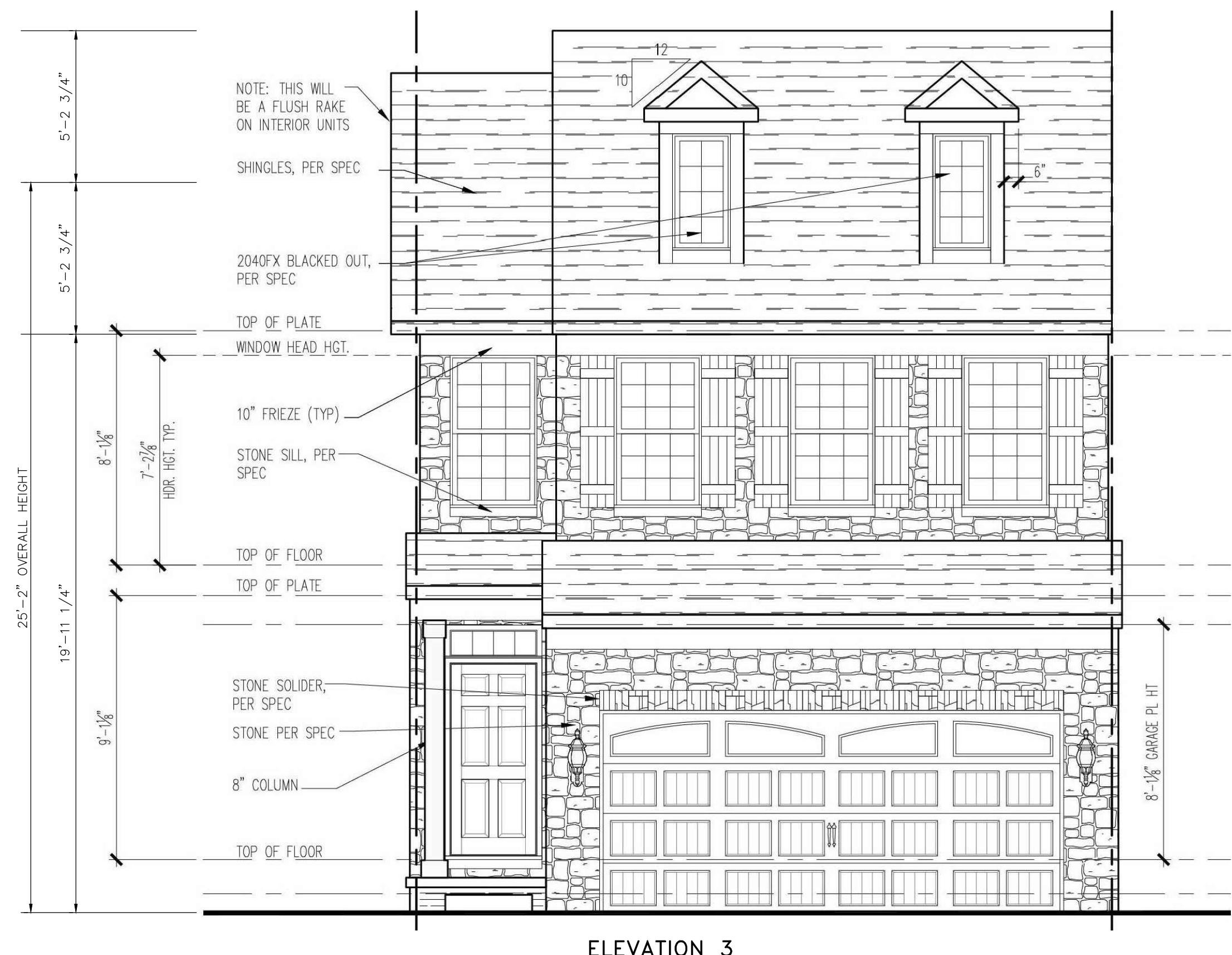
5-12-20 PER CITY



EL E V A T I O N 1
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EL E V A T I O N 3
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ELEVATION 4
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100% of the time

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The JUMIOR Group



LAND DEVELOPMENT SERVICES

111

SECTION 15
TOWN 3 NORTH, RANGE 11
CITY OF ROCHESTER HILLS
OAKLAND COUNTY, MICHIGAN

TO		
DATE:	10-25-2019	
REVISIONS		
12-11-19 PER CITY		
1-14-20 PER CITY		
4-14-20 FINAL PUD		
5-12-20 PER CITY		

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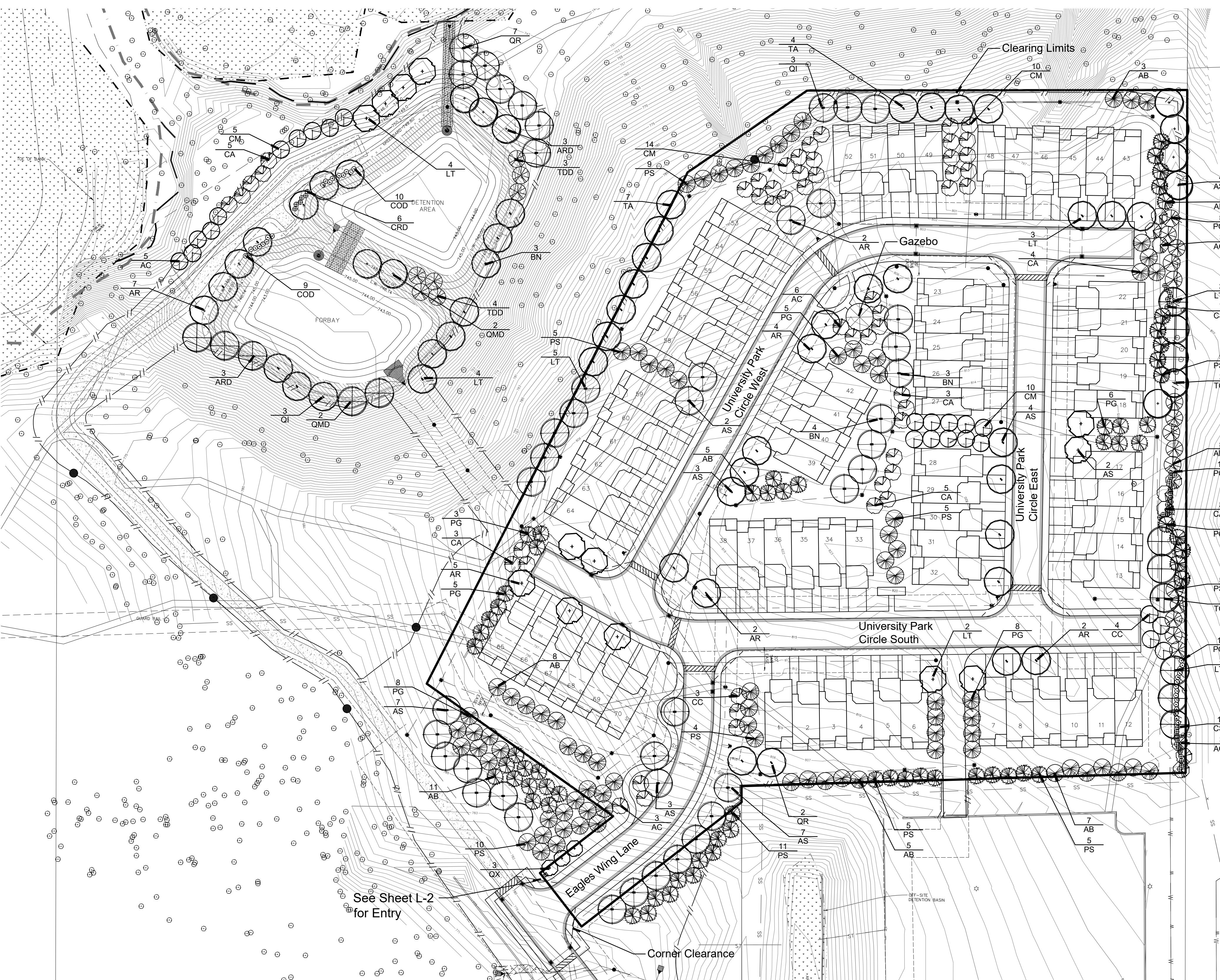
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JOB NO. 181104
SHEET NO.

HEET NO. 08

SHEET 08 OF 08



Landscape Summary

Landscape Buffer 'D' - East Property Line	
Buffer Length	605'
Trees Required	15 Trees (605 / 100) x 2.5
Trees Provided	15 Trees
Evergreens Required	30 Trees (605 / 100) x 5
Evergreens Proposed	30 Trees
Ornamentals Required	9 Trees (605 / 100) x 1.5
Ornamentals Provided	9 Trees
Shrubs Required	48 Shrubs (605 / 100) x 8
Shrubs Provided	48 Shrubs
Detention Pond Type 'A'	
Bank Full Length	627'
Trees Required	9.4 Trees (627 / 100) x 1.5
Trees Provided	10 Trees
Evergreens Required	6.3 Trees (627 / 100) x 1
Evergreens Provided	7 Trees
Shrubs Required	25 Shrubs (627 / 100) x 4
Shrubs Provided	25 Shrubs
Woodland Replacement	
Tree Credits Required	702 Credits
Credits Provided	600 Credits
Remaining 2.0' Credits to be Planted at Rochester University	102 Credits

Utility Maintenance Statement:

If, in the event, Utility Maintenance Results in the Removal of Landscaping, as Shown on this Plan, it Will be the Owner's Responsibility to Repair and Replace Shrubs and Trees that are Located within the Utility Easements.

Overhead Line Statement:

No Overhead Lines Exist

Woodland Credits Note:

Rather than pay into the City Tree fund, applicant proposes to plant all replacement trees on the Rochester University campus in locations TBD mutually agreed with Rochester University, Pulte and City Forester. If there are not enough areas or locations can not be agreed, Pulte may pay into the tree fund to satisfy their obligation.

Plant List

sym.	qty.	botanical name	common name	caliper	spacing	root	height	price	total
Landscape Buffer									
ABB	10	Abies concolor	Concolor Fir	2"	as shown	B&B	10'	\$ 300.00	\$ 3,000.00
ACB	6	Amelanchier canadensis	Servicerry	2.0"	as shown	B&B	5'	\$ 200.00	\$ 1,200.00
AS	4	Acer saccharinum	Sugar Maple	3.0"	as shown	B&B	8'	\$ 425.00	\$ 1,700.00
CA	8	Cornus alba	Altisata Leaf Dogwood	2.0"	as shown	B&B	20'	\$ 600.00	\$ 4,800.00
CSB	18	Cornus sericea 'Farrow'	Arctic Fire Dogwood	2.0"	as shown	cont.	30"	\$ 900.00	\$ 16,200.00
LTB	6	Liriodendron tulipifera	Tulip Tree	3.0"	as shown	B&B	10'	\$ 425.00	\$ 2,550.00
PGB	10	Picea glauca	White Spruce	3.0"	as shown	B&B	10'	\$ 300.00	\$ 3,000.00
POB	30	Physocarpus opulifolius 'Coppertina'	Coppertina Ninebark	3.0"	as shown	cont.	30"	\$ 50.00	\$ 1,500.00
PSB	10	Pinus strobus	White Pine	3.0"	as shown	B&B	10'	\$ 300.00	\$ 3,000.00
TCB	5	Tilia tomentosa	Silver Linden	3.0"	as shown	B&B	425.00	\$ 2,125.00	
Detention Plantings									
ARD	6	Acer rubrum 'October Glory'	Red Maple	3.0"	as shown	B&B	425.00	\$ 2,550.00	
COD	19	Cornus ammonum	Silky Dogwood	3.0"	as shown	B&B	50"	\$ 950.00	
CRD	6	Cornus racemosa	Gray Dogwood	3.0"	as shown	B&B	300.00	\$ 300.00	
QMD	4	Quercus macrocarpa	Bur Oak	3.0"	as shown	B&B	425.00	\$ 1,700.00	
TDD	7	Taxodium distichum	Baldcypress	3.0"	as shown	B&B	10'	\$ 300.00	\$ 2,100.00

sym.	qty.	botanical name	common name	caliper	spacing	root	height	price	total
Woodland Replacement									
AB	39	Abies concolor	Concolor Fir	2.0"	as shown	B&B	10'	\$ 300.00	\$ 11,700.00
AC	14	Amelanchier canadensis	Servicerry	2.5"	as shown	B&B	50"	\$ 200.00	\$ 2,800.00
AR	22	Acer rubrum 'October Glory'	Red Maple	3.0"	as shown	B&B	425.00	\$ 3,450.00	
AS	13	Alnus incana 'Green Mountain'	River Birch, Multi-Stem	3.0"	as shown	B&B	15'	\$ 425.00	\$ 6,375.00
CA	20	Cornus alba	Altisata Leaf Dogwood	2.5"	as shown	B&B	200.00	\$ 4,000.00	
CC	7	Cercis canadensis	Redbud	2.5"	as shown	B&B	200.00	\$ 1,400.00	
CM	39	Cornus mas	Comelin Cherry Dogwood	2.5"	as shown	B&B	425.00	\$ 7,800.00	
LT	18	Liriodendron tulipifera	Tulip Tree	3.0"	as shown	B&B	425.00	\$ 7,650.00	
PG	35	Picea glauca	White Spruce	3.0"	as shown	B&B	10'	\$ 300.00	\$ 10,500.00
PS	59	Physocarpus opulifolius	White Ninebark	3.0"	as shown	B&B	10'	\$ 2,550.00	\$ 147,550.00
QI	6	Quercus imbricaria	Shingle Oak	3.0"	as shown	B&B	425.00	\$ 2,550.00	
QR	9	Quercus rubra	Red Oak	3.0"	as shown	B&B	425.00	\$ 3,825.00	
QX	3	Quercus x warei 'Long'	Regal Prince Oak	3.0"	as shown	B&B	425.00	\$ 1,275.00	
TA	11	Tilia americana	Basswood	3.0"	as shown	B&B	425.00	\$ 4,675.00	
120 2.5' Ornamental Credits (80 trees X 1.5)								Total	
266 1.0' Evergreen Credits (133 trees X 2.0)								\$ 128,550.00	
214 3.0' Deciduous Credits (107 trees X 2.0)									
600 Total Credits									

Detention Plantings

Basin Side Slopes - Permanent Water to Bank Full

17,477 s.f.
32.6 lbs. per Acre Application Rate
13.1 lbs. of Storm Water Seed Mix
3'-6" of Topsoil Shall be Placed in this Area.

Upland Zone

2,930 s.f.
37.7 lbs. per Acre Application Rate
2.5 lbs. of Low Profile Seed Mix

Seeds Available from Cardno JNew
All Seed Shall be Protected with Mulch Blanket.

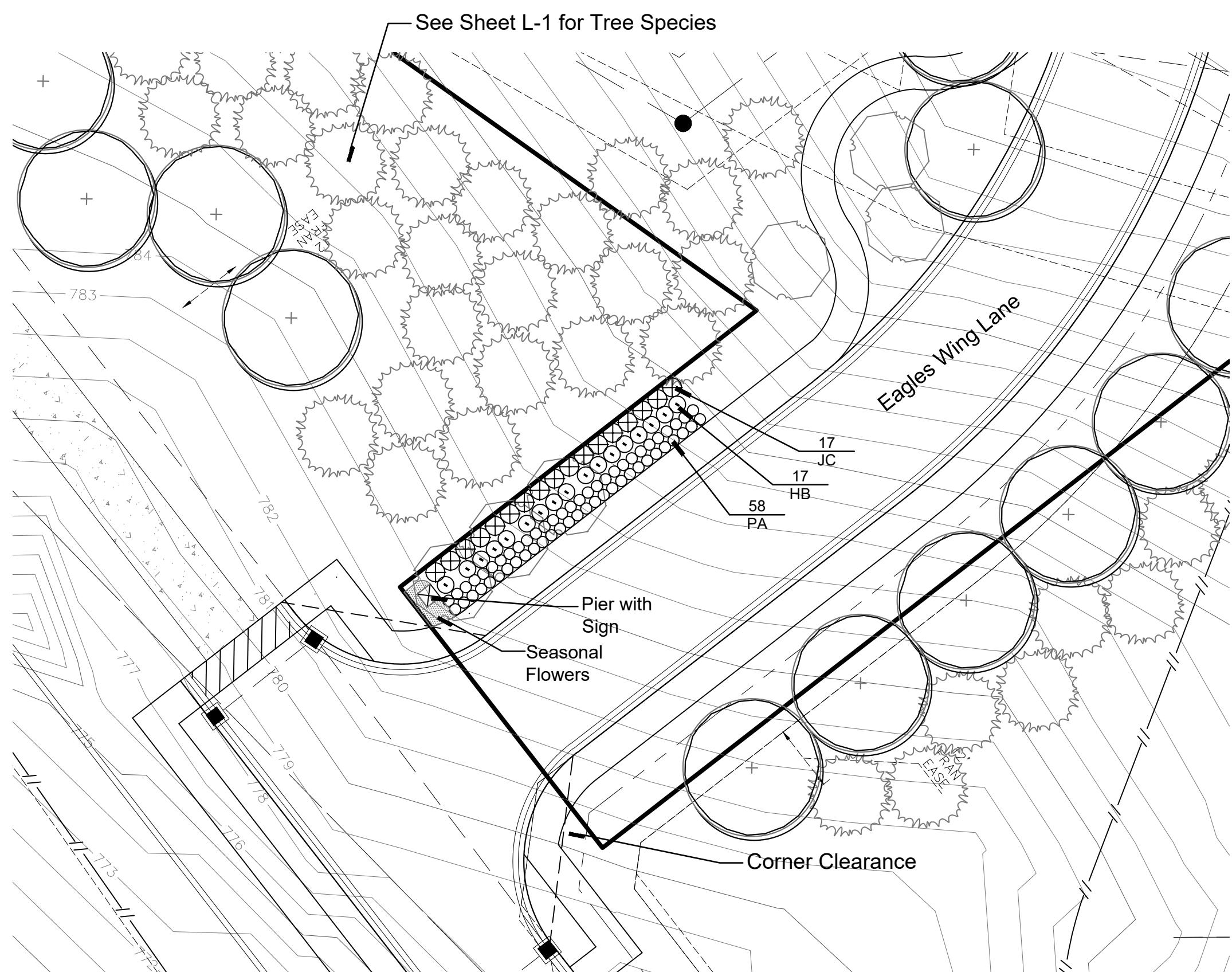
Stormwater Seed Mix

Botanical Name	Common Name	PLS Oz/Acre
Herbaceous-Sedges		
Bulbostylis kuvattis	River Bulrush	0.25
Carex cristata	Crested Oval Sedge	2.00
Carex lunda	Bottletrush Sedge	3.00
Carex spissa	Brown Nut Sedge	6.00
Gymnophyllum	Variegated Sedge	13.50
Glyceria striata	Fowl Manna Grass	1.25
Leersia oryzoides	Common Cut Grass	2.00
Panicum virgatum	Switch Grass	2.00
Schoenoplectus tabernaemontani	Softstem Bulrush	3.00
Scirpus atrocarius	Dark Green Rush	2.00
Scirpus cyperinus	Wool Grass	1.00
Total		
		37.00
Temporary Cover		
Avena sativa	Common Oat	360.00
Lolium multiflorum	Annual Rye	100.00
Total		
		460.00
Forbs		
Alisma spp.	Water Plantain Mix	4.25
Asclepias incarnata	Sw. Milkweed	1.50
Bidens pilosa	Common Milkweed	2.00
Helianthus annuus	Sneezeweed	2.00
Iris virginica	Blue Flag	4.00
Lycopodium carolinianum	Common Water Horsetail	0.25
Mimulus ringens	Monkey Flower	1.00
Oligoneurus idellae	Riddell's Goldthread	0.50
Polygonum perfoliatum	Blotch Stonecrop	0.50
Polygonum seductum	Round-leaf Stonecrop	4.00
Rubus hispida	Red-flowered Rubus	1.00
Rubus occidentalis	Smooth Black-Eyed Susan	1.00
Rudbeckia subtomentosa	Brown-Eyed Susan	1.50
Rudbeckia triloba	Common Coneflower	1.00
Spiraea alpine	Common Spirea	1.00
Spiraea dumosa	Shrub Spirea	1.00
Spiraea japonica	Japanese Spirea	1.00
Spiraea prunifolia	Shrub Spirea	1.00
Thlaspi arvense	Hoary Cress	0.25
Total		
		28.00

Low Profile Seed Mix

Botanical Name	Common Name	Ounces/Acre

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Entry

Plant List

sym.	qty.	botanical name	common name	caliper	spacing	root	height	price	total
General Plantings									
HB	17	Hydrangea p. 'Bobo'	Bobo Hydrangea			as shown	cont 36"	\$ 50.00	\$ 850.00
JC	17	Juniperus ch. "Keteleer"	Keteleer Juniper			as shown	B&B 7"	\$ 95.00	\$ 1,615.00
PA	58	Pennisetum a 'Hamelin'	Dwarf Fountain Grass			as shown	cont 1 gal.	\$ 15.00	\$ 870.00
							Total		\$ 3,335.00

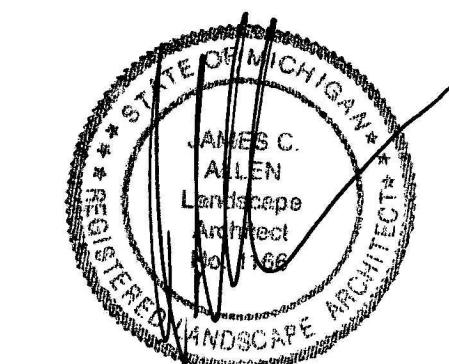


Seating



Gazebo

Seal:



Title:

Landscape Plan

Project:

The Groves
Rochester Hills, Michigan

Prepared for:

Pulte Group
2800 Livernois Road, Building D, Suite 320
Troy, MI 48083

Revision: **Issued:**

Submission
Revised
April 15, 2020
May 11, 2020

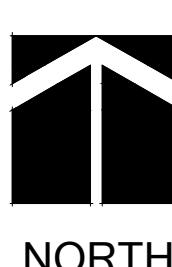
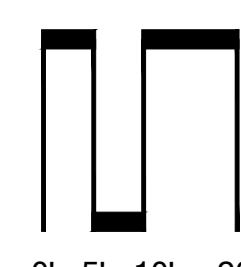
Job Number:

20-021

Drawn By: **Checked By:**

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Sheet No.

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City File #19-022
Section 15