

# RAY TOWNHOMES PRELIMINARY ENGINEERING PLANS

APRIL 17, 2020  
PREPARED BY:



1724 West Marine View Drive, Suite 140  
Everett, WA 98201  
p. 425.486.6533 | f. 425.486.6593

Civil | Structural | Planning | Survey  
www.paceengrs.com

**CIVIL ENGINEER**

PACE ENGINEERS  
1724 W. MARINE VIEW DRIVE #140  
EVERETT, WA 98201  
(425) 486-6533  
CONTACT: KEN MCINTYRE, PE

**APPLICANT**

CUSTOM COMFORT HOMES, LLC  
8310 59TH AVE NE  
MARYSVILLE, WA 98270  
(425) 359-1745  
CONTACT: SCOTT RAY

**SURVEYOR**

ANDES LAND SURVEYING  
1523 TENTH STREET, STE. A  
MARYSVILLE, WA 98270  
(360) 659-6639  
CONTACT: JEROME ANDES, PLS

**GEOTECHNICAL ENGINEER**

GEOTEST ENGINEER  
741 MARINE DRIVE  
BELLINGHAM, WA 98225  
(360) 733-7418  
CONTACT: GERRY BAUTISTA, PE

**NET DENSITY CALCULATIONS**

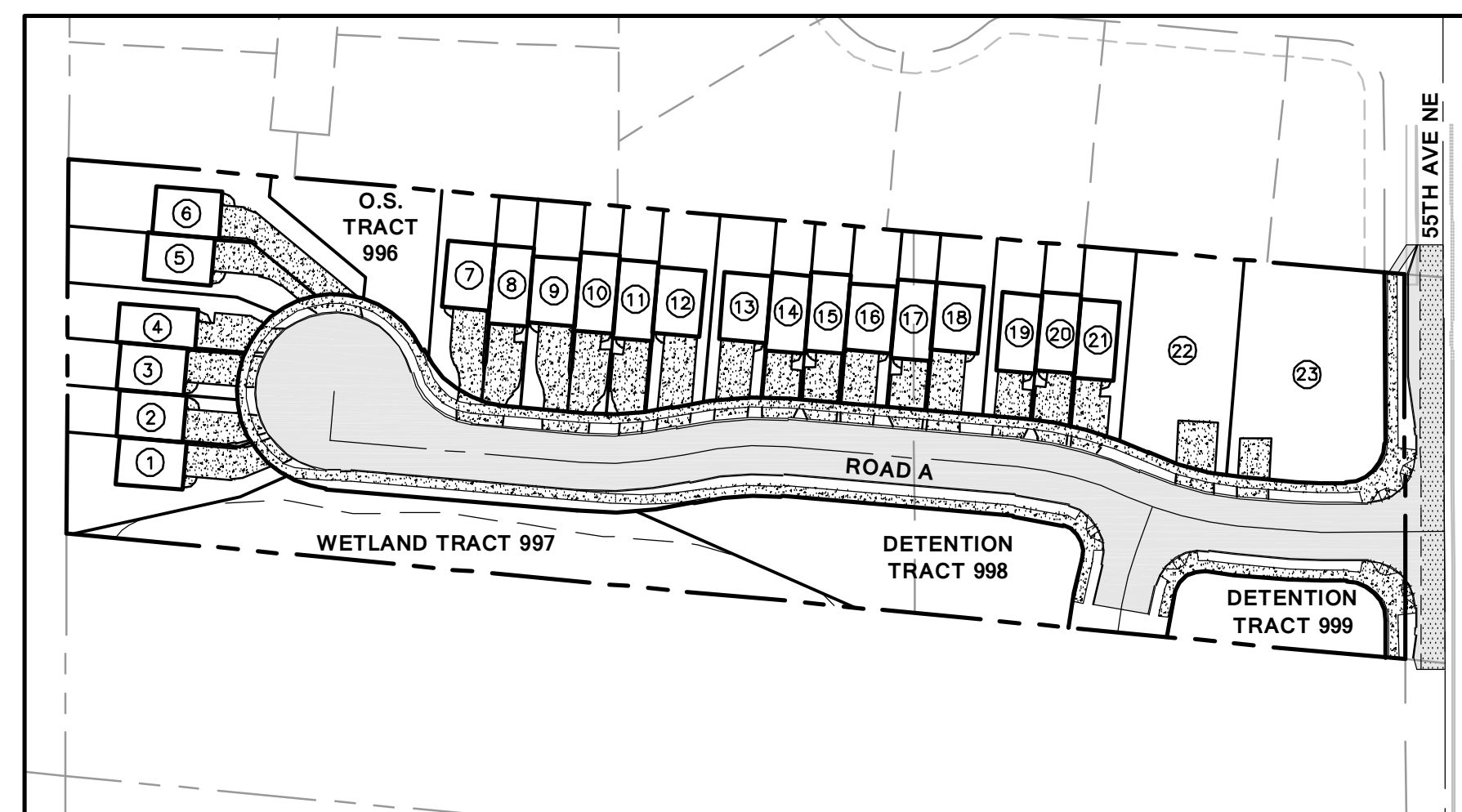
GROSS SITE AREA:	132043 SF
LESS FLOODPLAINS:	0 SF
LESS NON-TRANSF CRITICAL AREAS:	0 SF
LESS COMMUNITY FACILITIES:	0 SF
LESS STORM FACILITY (SEE BELOW):	6597 SF
LESS R/W & PANHANDLES:	37625 SF
<b>NET SITE AREA (SF)</b>	<b>87821 SF (2.02 AC)</b>

NET DENSITY: (2.02 AC) x (12 DU/AC) = 24 UNITS

**STORM FACILITY AREA**

UNDERGROUND FACILITIES USABLE FOR RECREATIONS NOT COUNTED  
ABOVE-GROUND FACILITIES MEETING L.I.D. STANDARDS COUNTED AT 50%

BIORETENTION AREA (L.I.D. FACILITY) = 13193 SF  
STORM FACILITY AREA USED FOR DENSITY CALC. = 6597 SF



**LEGEND**

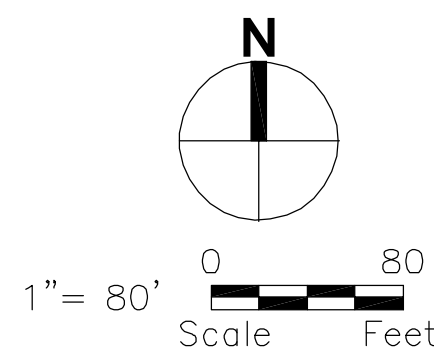
- CB CATCH BASIN
- CC CURB CUT
- CS CONC SLAB
- CW CONC WALK
- FL FLOW LINE
- FOG FOG LINE
- FVC FACE OF VERTICAL CURB
- GA GUY ANCHOR
- IE INVERT ELEVATION
- PIP POWER INDICATOR POST
- PM POWER METER
- PP POWER POLE
- PPU POWER POLE W/UNDERGROUND
- PTLU POWER POLE W/XFMR&LIGHT&UG
- SLL SOLID LOCKING LID
- SSCO SANITARY SEWER CLEANOUT
- SSMH SANITARY SEWER MANHOLE
- SSS SANITARY SEWER STUB
- WF WET FLAG AS NOTED
- WIP WATER INDICATOR POST
- WM WATER METER
- WV WATER VALVE
- WW WATER VAULT
- XFMR TRANSFORMER

- P PINE
- ASPHALT HATCH
- CONCRETE HATCH
- GRAVEL HATCH

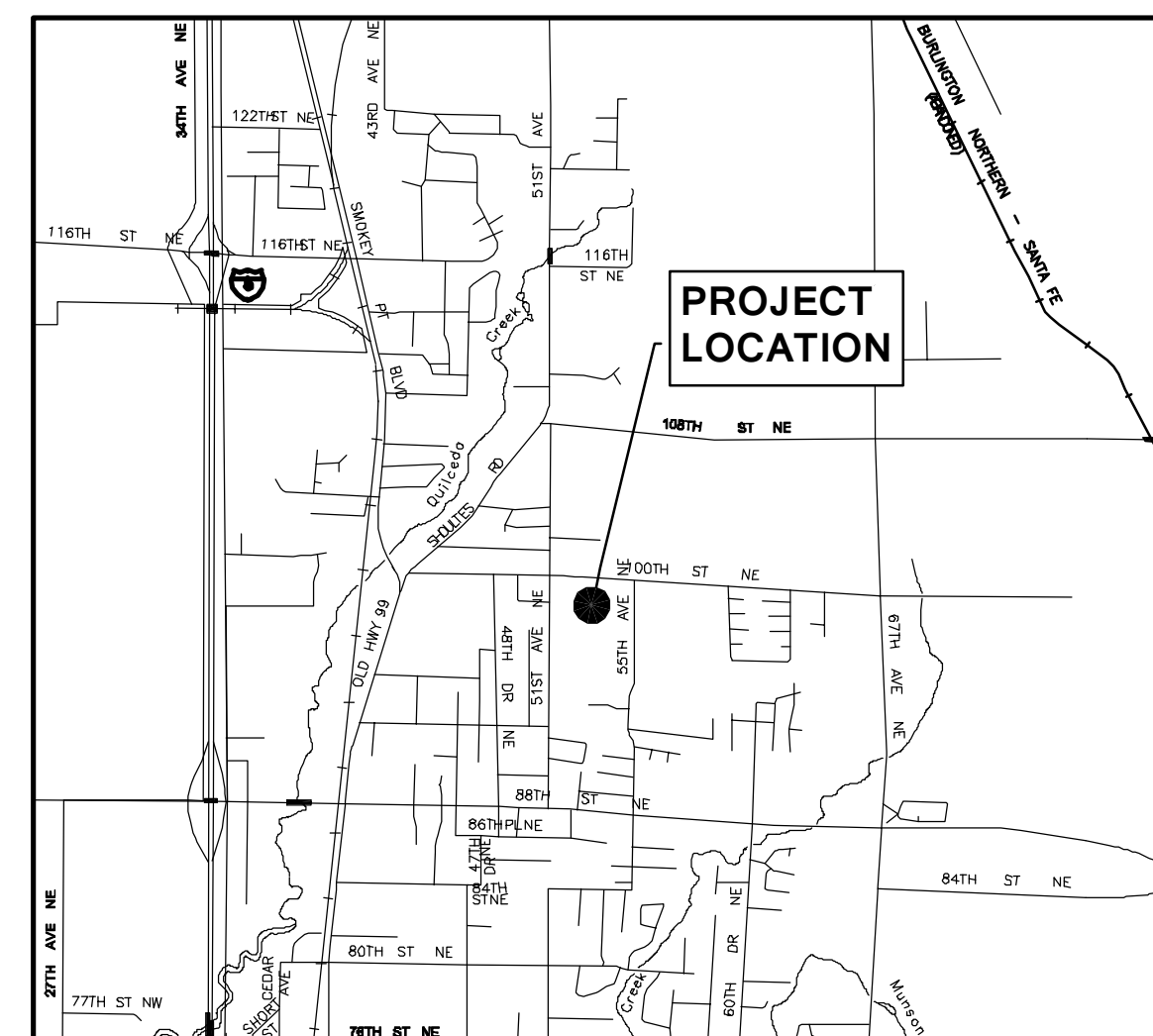
**SYMBOLS LEGEND**

- CATCH BASIN
- ENVIRONMENTAL TEST PIT(AS NOTED)
- <sup>TH</sup> FIRE HYDRANT
- <sup>PM</sup> GAS/POWER METER(AS NOTED)
- <sup>GA</sup> GUY ANCHOR
- <sup>D</sup> INDICATOR POST
- <sup>PP</sup> POWER POLE(AS NOTED)
- <sup>SSCO</sup> ROCKERY
- <sup>SSCO</sup> SANITARY SEWER CLEANOUT
- <sup>SSMH</sup> SANITARY SEWER MANHOLE
- <sup>SSS</sup> SANITARY SEWER STUB
- STORM DRAIN CULVERT
- <sup>WM</sup> WATER METER
- <sup>WV</sup> WATER VALVE
- <sup>WW</sup> WATER VAULT
- ★ CONIFER(AS NOTED)
- x FENCE LINE AS NOTED
- FLOWLINE
- GAS LINE
- <sup>OHP</sup> OVERHEAD POWER LINE
- <sup>UGP</sup> UNDERGROUND POWER LINE
- <sup>SS</sup> SANITARY SEWER LINE
- <sup>SD</sup> STORM DRAIN LINE
- WATER LINE
- <sup>UGT</sup> UNDERGROUND TELEPHONE LINE

SHEET NUMBER	SHEET TITLE
C1.0	TITLE SHEET
C2.0	TESC PLAN
C3.0	GRADING PLAN
C4.0	ROAD & UTILITY PLAN
C4.1	ROAD PROFILES



**VICINITY MAP**



**LEGAL DESCRIPTION**

THE EAST HALF OF THE SOUTH HALF OF THE NORTH HALF OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 15, TOWNSHIP 30 NORTH, RANGE 5 EAST, W.M. IN SNOHOMISH COUNTY, WASHINGTON, CONTAINING FIVE ACRES, MORE OR LESS, ACCORDING TO GOVERNMENT SURVEY. EXCEPT THEREFROM THE SOUTH TWO ACRES THEREOF. SITUATE IN THE COUNTY OF SNOHOMISH, STATE OF WASHINGTON. (LEGAL DESCRIPTION PER STATUTORY WARRANTY DEED RECORDED UNDER AUDITOR'S FILE NUMBER 200009180645.)

**VERTICAL DATUM: NAVD 88**

WGS SURVEY DATA WAREHOUSE  
DB ID: 17668  
BRASS MONUMENT IN CASE  
(SOUTHWESTERLY OF TWO CASES AT 100TH STREET N.E. & 55TH AVENUE N.E.)

**BASIS OF BEARING**

ROS/BLA FOR MARYSVILLE PARKS AND RECREATION  
RECORDED UNDER A.F.N. 201701105004.

ELEV= 76.67' NAVD 88

**REFERENCE**

REF. 1  
BOUNDARY LINE ADJUSTMENT A.F.N. 201701105004  
(FILED UNDER BOUND. LINE ADJUSTMENTS)

**SURVEY NOTES**

- NO TREES HAVE BEEN LOCATED.
- NO UTILITY LOCATIONS WERE MADE.

**UNDERGROUND UTILITY NOTES**

UNDERGROUND UTILITY LOCATIONS SHOWN HEREON ARE BASED UPON SURFACE INDICATORS. NO UNDERGROUND LOCATE SERVICE WAS UTILIZED FOR THEIR LOCATION. THE USE OF THIS MAP FOR THEIR EXACT LOCATION IS NOT WARRANTED. PRIOR TO CONSTRUCTION OR FURTHER SITE DESIGN USER SHOULD CALL THE UTILITY LOCATE SERVICE AT 1-800-424-5555 48 HOURS BEFORE CONSTRUCTION.

**GENERAL NOTES**

- THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF A SURVEY MADE ON THE DATE INDICATED AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITION EXISTING AT THAT TIME.
- UNDERGROUND UTILITIES WERE LOCATED BASED ON THE SURFACE EVIDENCE OF UTILITIES (I.E. PAINT MARKS, SAW CUTS IN PAVEMENT, COVERS, LIDS ETC.) THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION, ELEVATION AND SIZE OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.
- TREE SIZES WERE LOCATED & SPECIES DETERMINED TO THE BEST OF OUR ABILITY. HOWEVER, MEAD GILMAN & ASSOCIATES DOES NOT WARRANT THE ACCURACY OF SIZE & SPECIES SHOWN HEREON. ANY TREES CONSIDERED TO BE CRITICAL SHOULD BE VERIFIED BY A TRAINED ARBORIST.
- THIS MAP DOES NOT PURPORT TO SHOW EASEMENTS OF RECORD, IF ANY.
- NO PROPERTY CORNERS WERE SET IN CONJUNCTION WITH THIS SURVEY.

**SITE DATA**

ADDRESS: 9820 55TH AVE NE  
MARYSVILLE, WA 98270

TAX PARCEL #: 30051500302100

EXISTING ZONING: R12 MFL

PROPOSED ZONING: R12 MFL

TOTAL SITE AREA: 3.03 AC

PROPOSED LOTS: 23

LOTS PER ACRE: 7.59

WATER DISTRICT: CITY OF MARYSVILLE

SEWER DISTRICT: CITY OF MARYSVILLE

SCHOOL DISTRICT: MARYSVILLE DIST. #25

FIRE DISTRICT: MARYSVILLE FIRE DIST.

**GRADING QUANTITIES:**

CUT: 190 CY  
FILL: 12,040 CY  
NET: 11,850 CY (FILL)






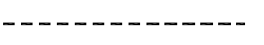



	Drawn By NKJ	Designed By NKJ	Checked By KJM	Approved By 1-2-20	Date
	1"=80' Horiz. Scale	Vert. Scale 415'-001'-18	Project No. 41-17-24	No.	Description
Client: RAY TOWNHOMES, 8324 59TH AVE NE, MARYSVILLE, WA 98270					
Contact: SCOTT RAY					
TITLE SHEET					
C1.0					

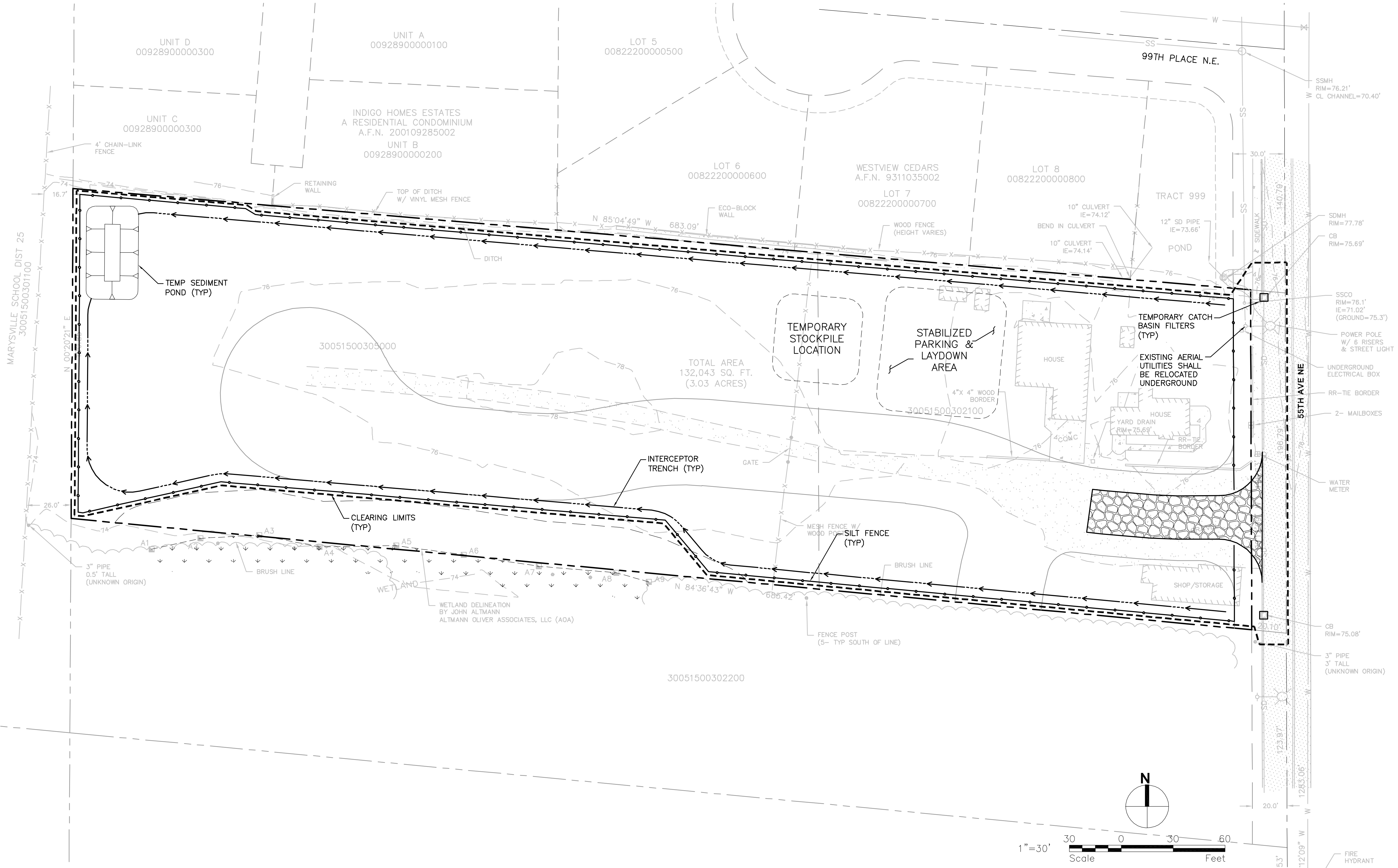
NW 1/4 OF THE SW 1/4 OF SEC. 15, TWP. 30 N., R. 5 E

NOTE:

1. ALL PROPOSED CATCH BASINS WILL REQUIRED INLET PROTECTION ONCE CONSTRUCTED.
2. TO PROVIDE THE BEST PROTECTION FOR SIGNIFICANT TREES DURING THE CONSTRUCTION STAGE, THE APPLICANT SHALL INSTALL A TEMPORARY, FIVE-FOOT-HIGH, ORANGE CLEARING LIMITS CONSTRUCTION FENCE IN A LINE GENERALLY CORRESPONDING TO THE DRIPLINE OF ANY SIGNIFICANT TREE(S) TO BE RETAINED. ALL SUCH FENCING SHALL BE INSTALLED AND INSPECTED BY THE COMMUNITY DEVELOPMENT DEPARTMENT PRIOR TO COMMENCEMENT OF SITE WORK.

LEGEND:

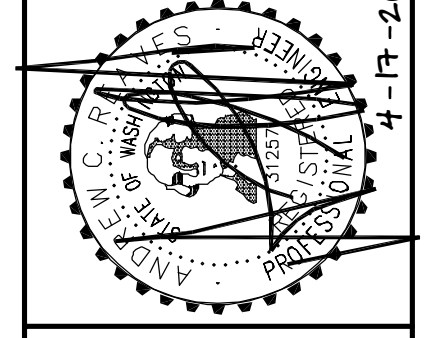
-  PROPERTY LINE
-  INTERCEPTOR SWALE
-  CLEARING/GRADING LIMITS
-  TESC BASIN BOUNDARY
-  FILTER FABRIC FENCE
-  TEMPORARY CATCH BASIN FILTERS
-  STABILIZED CONSTRUCTION ENTRANCE



REVISIONS	
No.	Description

TS	Drawn By	Designed By	Checked By	Approved By	Date
	NKJ	NKJ	KJM		

1"=30'	Horiz. Scale	Vert. Scale	Project No.
			419-001-18



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 Everett, WA 98201  
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 8324 99TH AVE NE  
 MARYSVILLE, WA 98270

SCOTT RAY  
 Contact

**RAY TOWNHOMES**

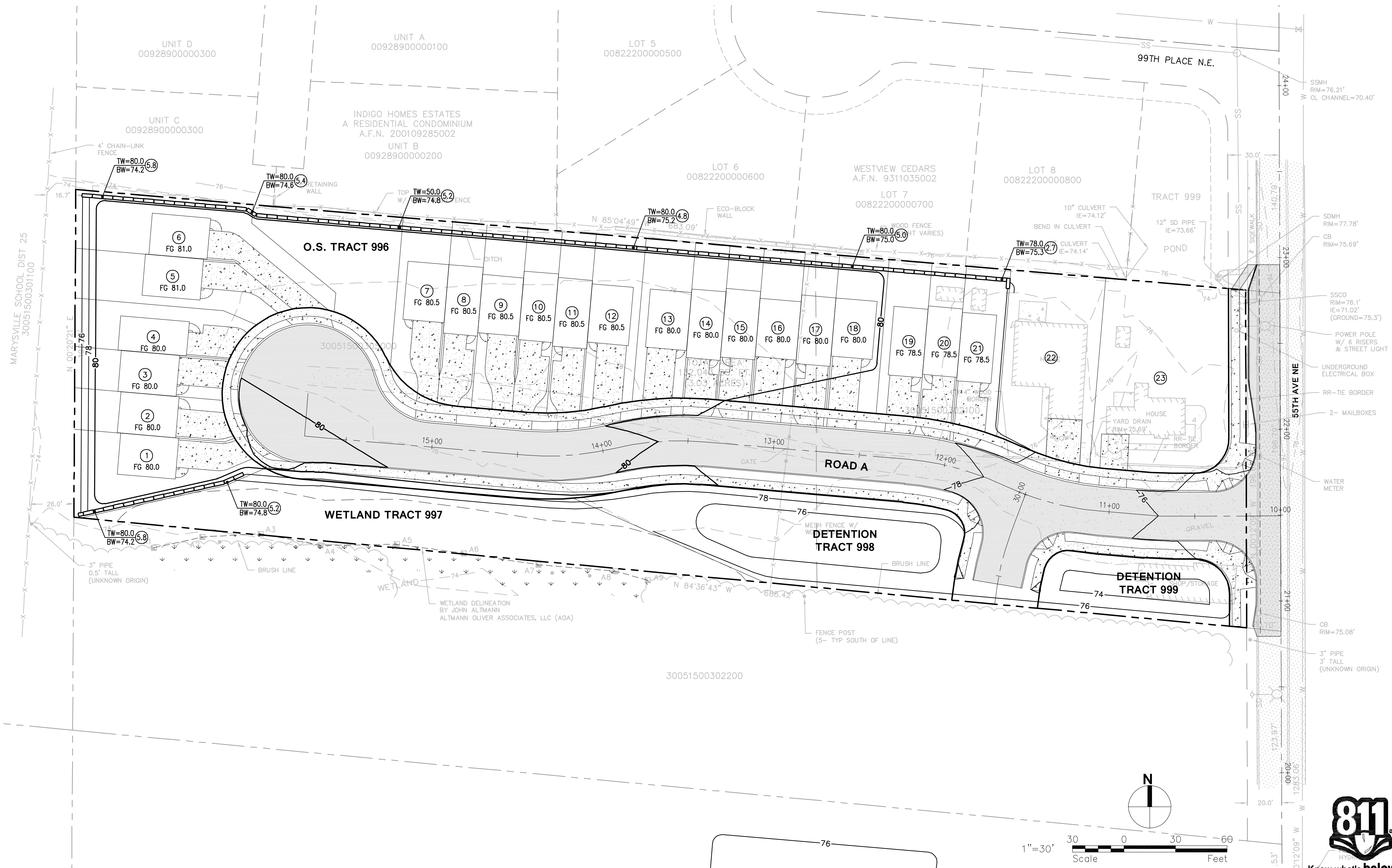
**TESC PLAN**

**C2.0**

NW 1/4 OF THE SW 1/4 OF SEC. 15, TWP. 30 N., R. 5 E

LEGEND:

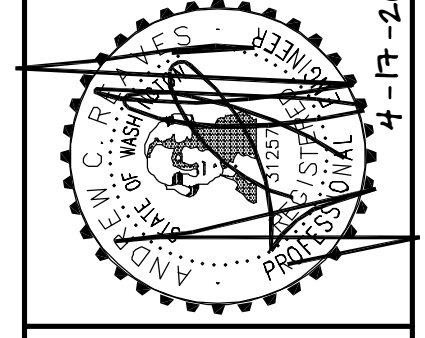
- TOP OF WALL ELEV.
- WALL HEIGHT
- BOTTOM OF WALL ELEV.
- BLOCK WALL



No.	Description	Date

TS	Drawn By	Designed By	Checked By	Approved By	Date
	NKJ	NKJ	KJM		

1"=30'	Horiz. Scale	Vert. Scale	Project No.
			415-001-18



Client:  
**RAY TOWNHOMES**  
 8324 59TH AVE NE  
 MARYSVILLE, WA 98270

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 www.paceengs.com

**PACE**  
 An Engineering Services Company

**S D A**  
 Structural Design Associates

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 8324 59TH AVE NE  
 MARYSVILLE, WA 98270

SCOTT RAY  
 Contact

**RAY TOWNHOMES**

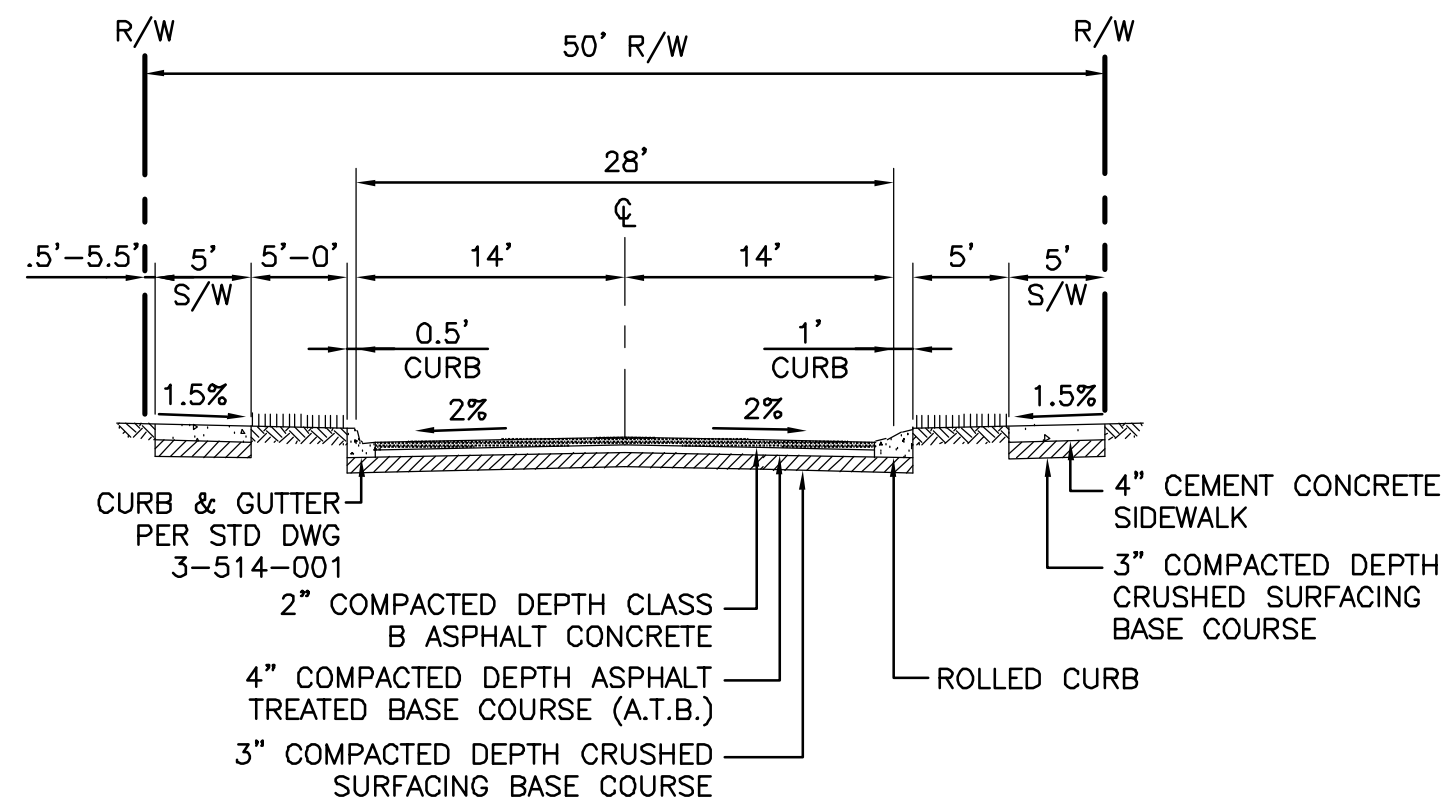
**GRADING PLAN**

**C3.0**



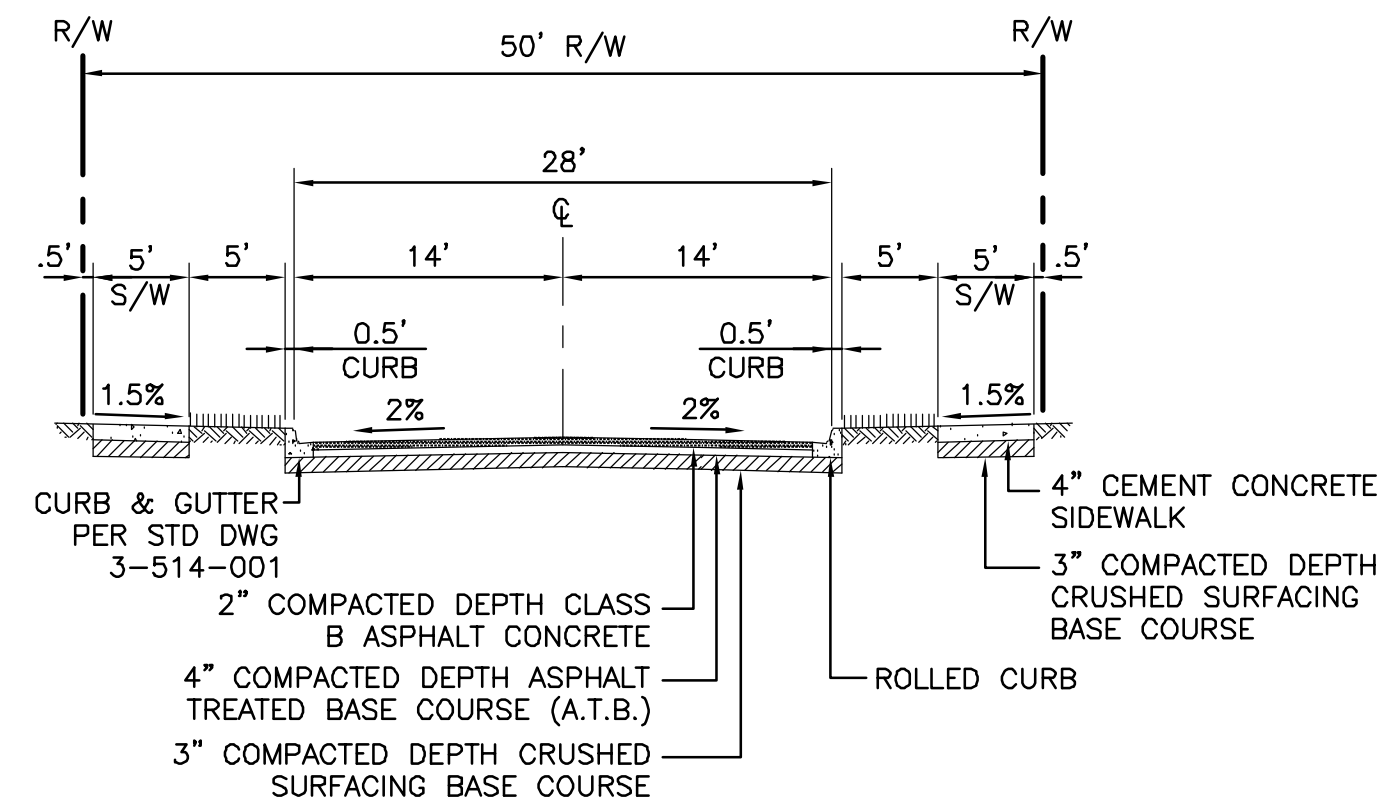


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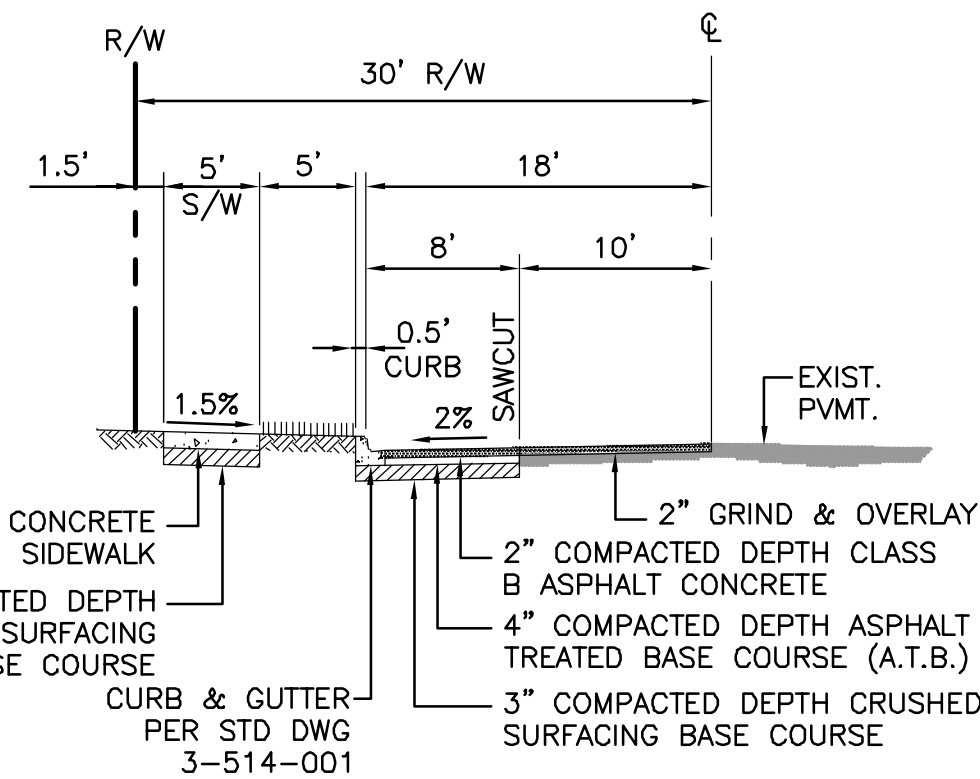
**A** TYPICAL PUBLIC ROADWAY SECTION

**ROADS A**  
PUBLIC ROAD  
RESIDENTIAL DESIGN SPEED = 25 MPH  
N.T.S.



**B** TYPICAL PUBLIC ROADWAY SECTION

**ROADS B**  
PUBLIC ROAD  
RESIDENTIAL DESIGN SPEED = 25 MPH  
N.T.S.

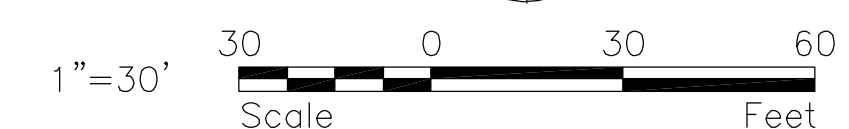
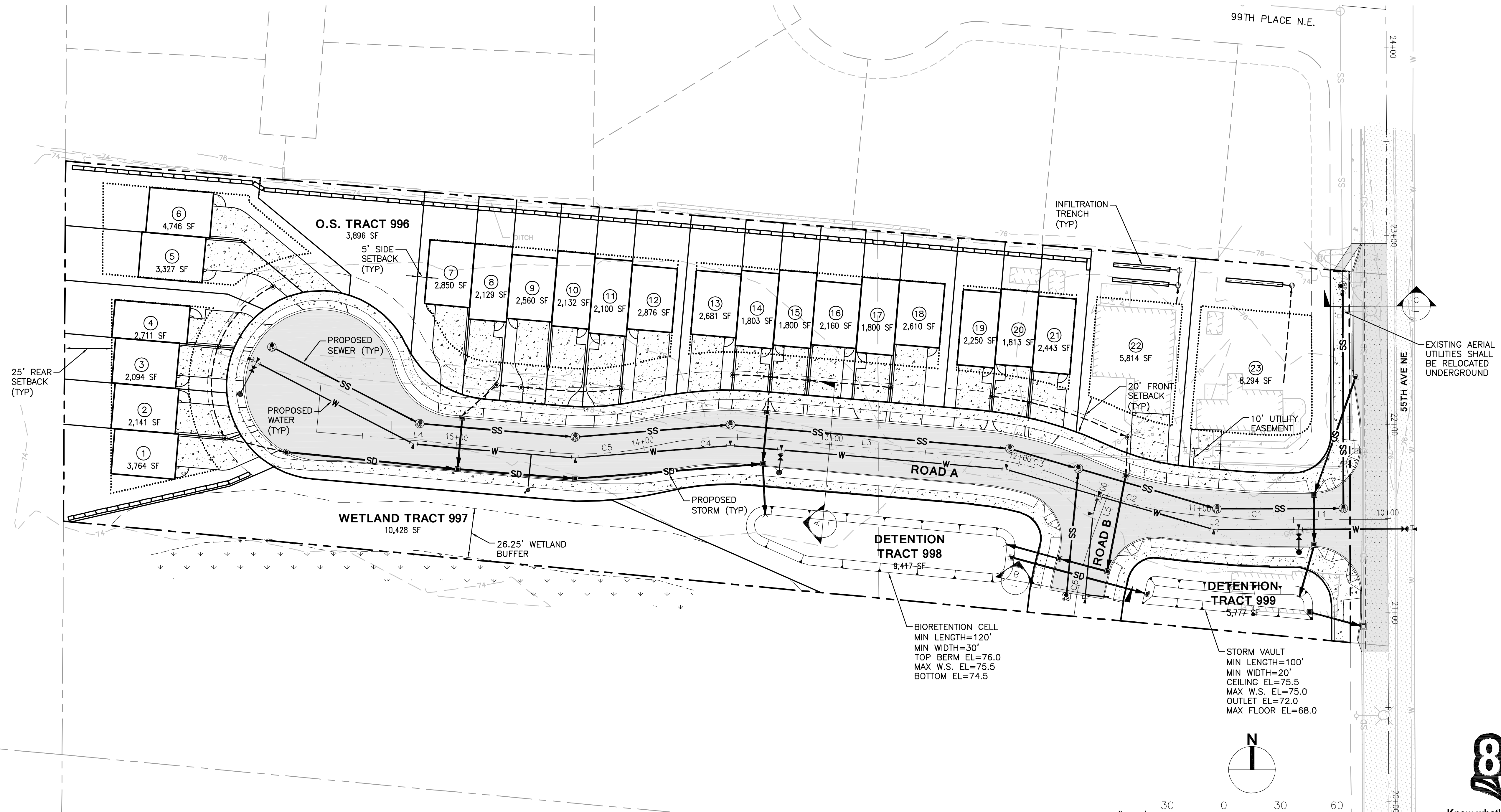


**C** FRONTAGE IMPROVEMENTS SECTION

**55TH AVE NE**  
PUBLIC ROAD  
RESIDENTIAL DESIGN SPEED = 25 MPH  
N.T.S.

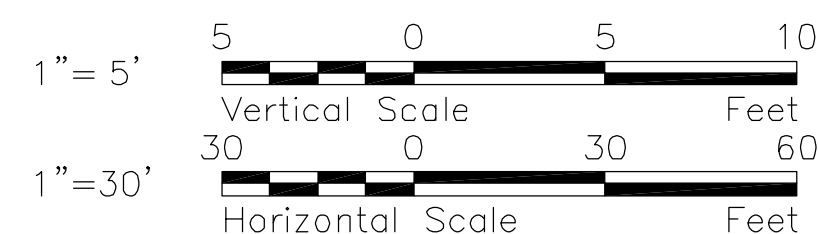
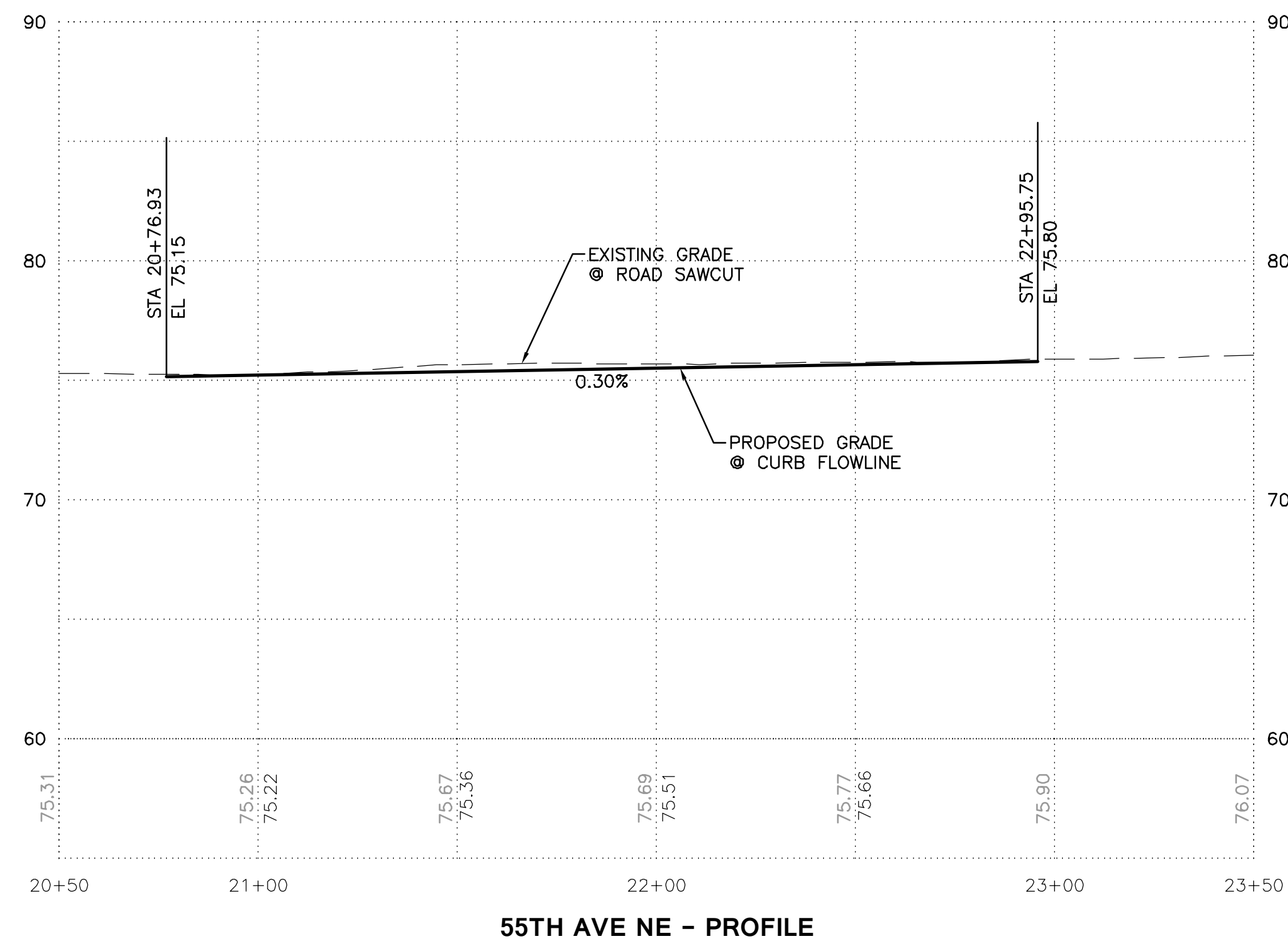
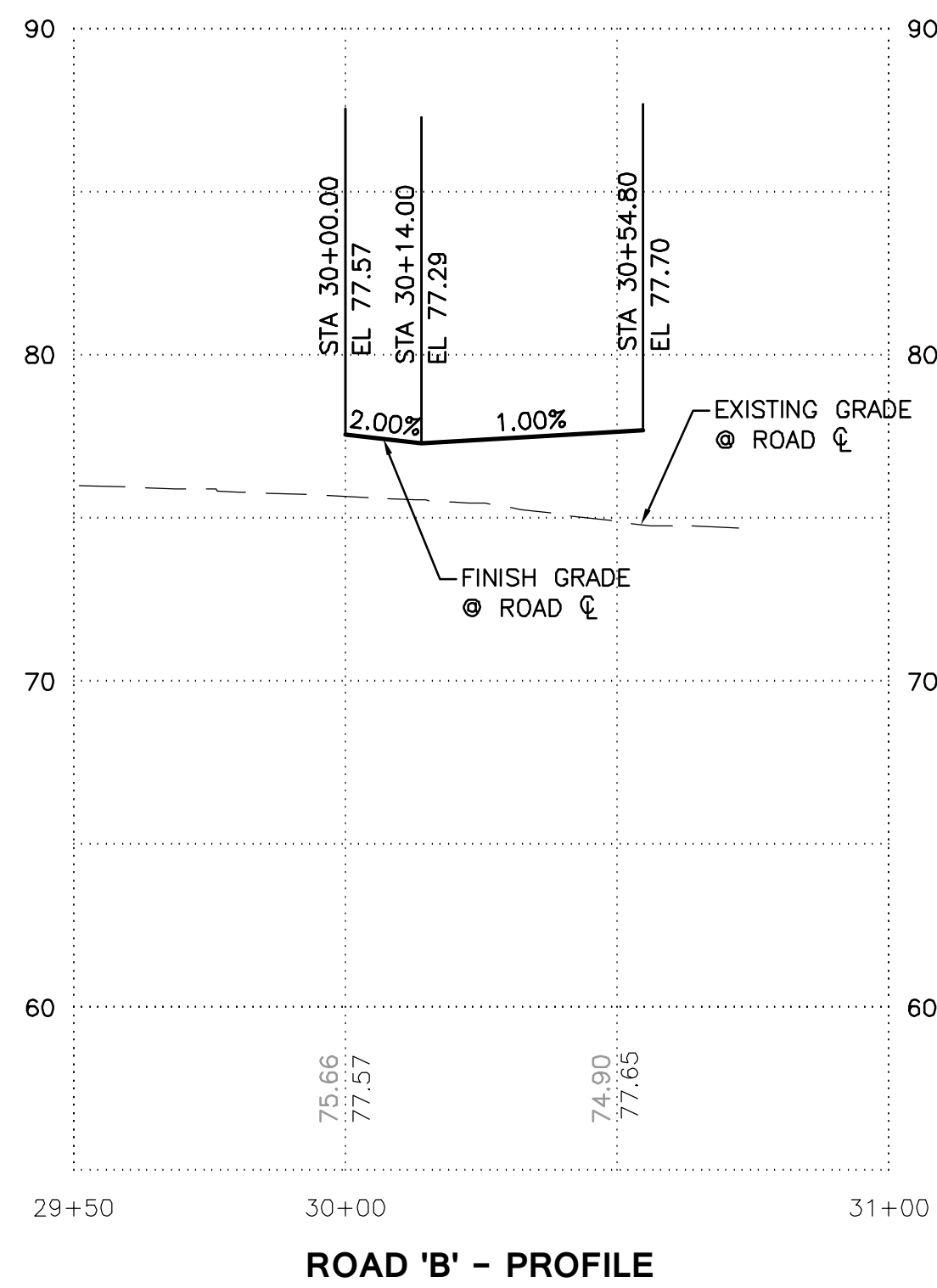
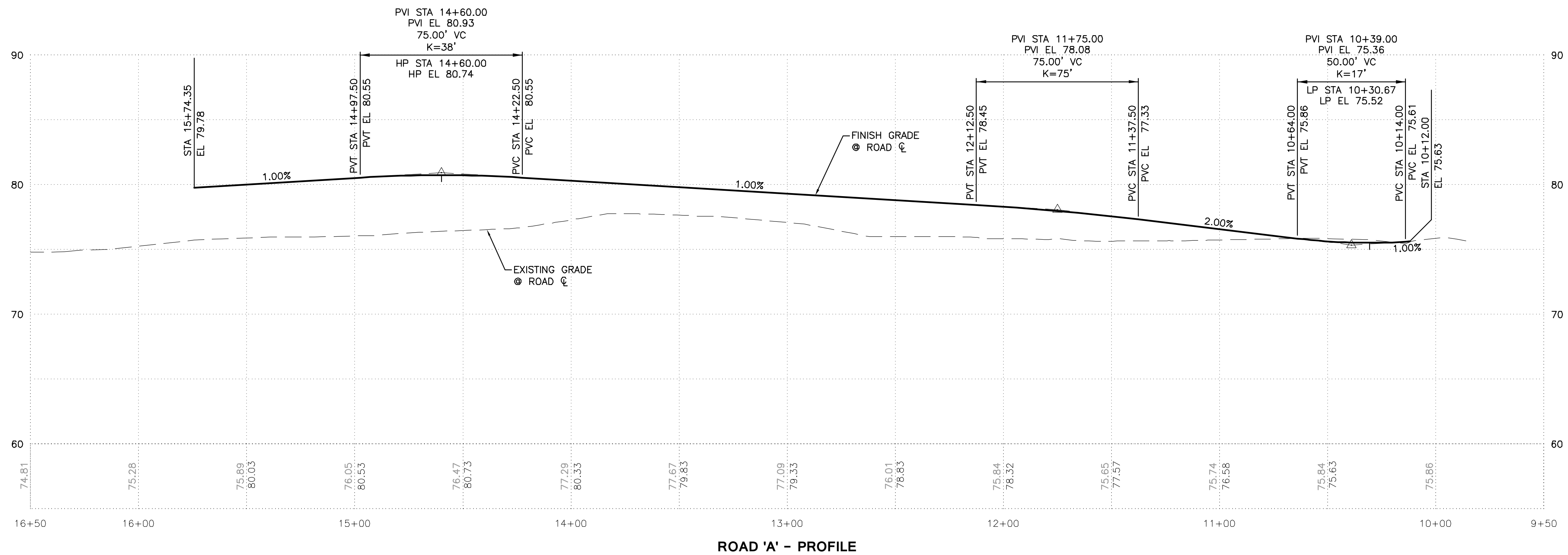
LINE #	LENGTH	DIRECTION
L1	62.63	S89°47'51"W
L2	28.07	N85°04'49"W
L3	118.37	N85°04'49"W
L4	128.36	N85°04'49"W
L5	23.35	S20°23'26"W

CURVE #	RADIUS	LENGTH	DELTA
C1	165.00	14.75	05°07'19"
C2	165.00	58.40	20°16'44"
C3	165.00	58.40	20°16'44"
C4	165.00	52.69	18°17'51"
C5	165.00	52.69	18°17'51"
C6	165.00	43.20	15°00'09"



<b>REVISIONS</b> No. Description Date	
TS Drawn By: NKJ Designed By: NKJ Checked By: KJM Approved By: 1-2-20	Project No.: 419-001-18 Project No.: 419-001-18
1"=30' Horiz. Scale Vert. Scale	
Client: RAY TOWNHOMES 8324 99TH AVE NE MARYSVILLE, WA 98270 Contact: SCOTT RAY	
1724 West Marine View Drive, Suite 140 Everett, WA 98201 P. 425.486.6533   F. 425.486.6593 Civil   Structural   Planning   Survey www.paceeng.com	
<b>RAY TOWNHOMES</b> <b>ROAD &amp; UTILITY PLAN</b> <b>C4.0</b>	

NW 1/4 OF THE SW 1/4 OF SEC. 15, TWP. 30 N., R. 5 E

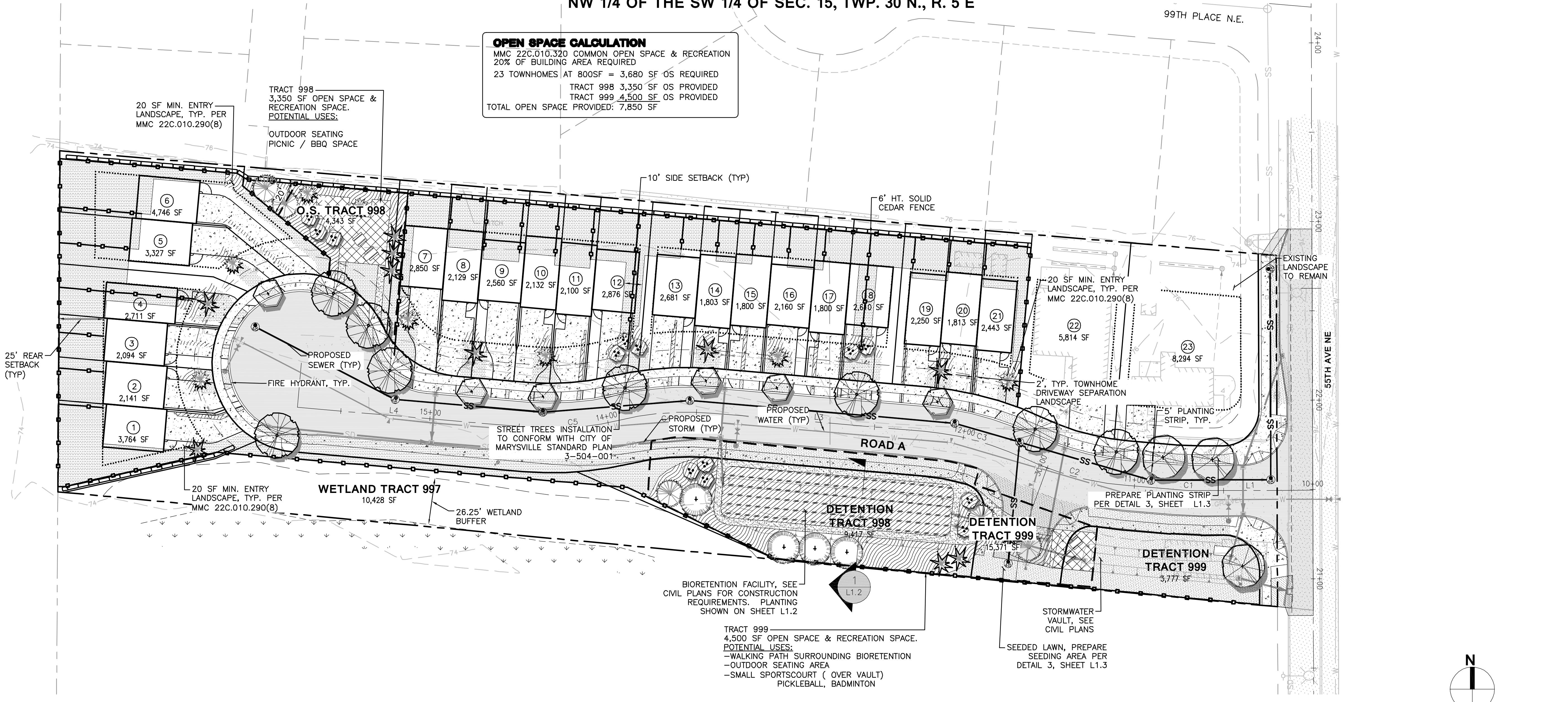


Know what's below.  
Call before you dig.

<p><b>RAY TOWNHOMES</b> 8324 59TH AVE NE MARYSVILLE, WA 98270</p>		<p>Client RAY TOWNHOMES 8324 59TH AVE NE MARYSVILLE, WA 98270</p>							
<p><b>ROAD PROFILES</b></p>		<p>SCOTT RAY Contact</p>							
<p><b>C4.1</b></p>		<p>1724 West Marine View Drive, Suite 140 Everett, WA 98201 p. 425.486.6533   f. 425.486.6593 Civil   Structural   Planning   Survey www.paceengs.com</p>							
<p><b>PACE</b> An Engineering Services Company</p>		<p>1724 West Marine View Drive, Suite 140 Everett, WA 98201 p. 425.486.6533   f. 425.486.6593 Civil   Structural   Planning   Survey www.paceengs.com</p>							
<p>TS Drawn By: NKJ Designed By: NKJ Checked By: KJM Approved By: 1-2-20</p>		<p>REVISIONS</p> <table border="1"> <thead> <tr> <th>No.</th> <th>Description</th> <th>Date</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>		No.	Description	Date			
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<p>1"=30' Horiz. Scale</p>		<p>1"=5' Vert. Scale</p>							
<p>415-001-18 Project No.</p>		<p>4-17-20 Date</p>							



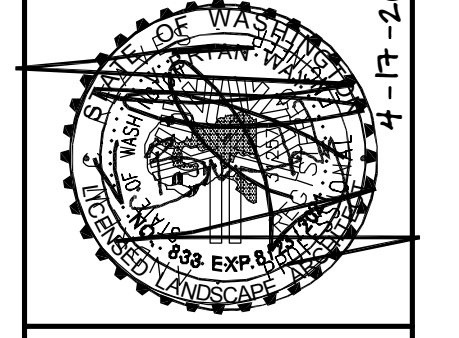
**OPEN SPACE CALCULATION**  
 MMC 22C.010.320 COMMON OPEN SPACE & RECREATION  
 20% OF BUILDING AREA REQUIRED  
 23 TOWNHOMES AT 800SF = 3,680 SF OS REQUIRED  
 TRACT 998 3,350 SF OS PROVIDED  
 TRACT 999 4,500 SF OS PROVIDED  
 TOTAL OPEN SPACE PROVIDED: 7,850 SF



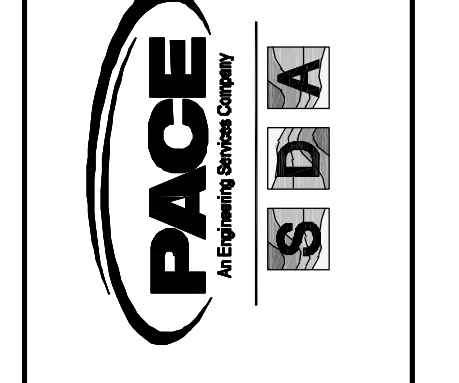
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Horiz. Scale	Vert. Scale	Project No.
		415-001-18



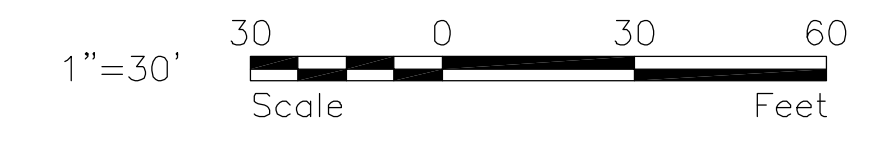
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**PLANT SCHEDULE**

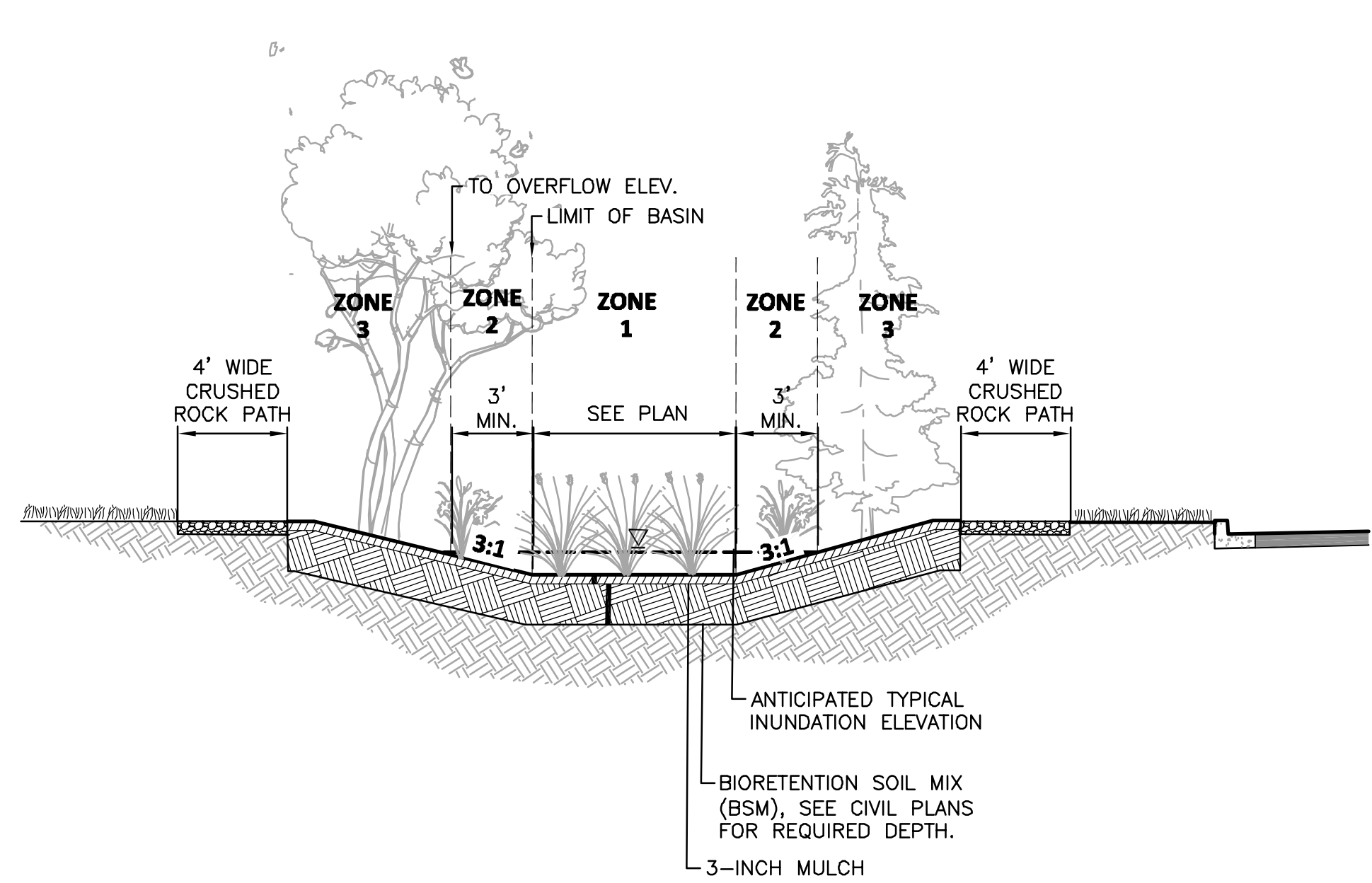
SYMBOL	BOTANICAL NAME/COMMON NAME	SIZE/CONDITIONS	SPACING	QTY.	SYMBOL	BOTANICAL NAME/COMMON NAME	SIZE/CONDITIONS	SPACING	
<b>STREET TREES</b>					<b>TOWNHOME AND OPEN SPACE PLANTING</b> (ENTRY LANDSCAPE MMC 22C.010.290(C) AND DRIVEWAY SEPARATION)				
	ACER X FREEMANII 'JEFFERSRED' / AUTUMN BLAZE MAPLE	2" CAL. MIN.	AS SHOWN	8		MAHONIA AQUIFOLIUM 'COMPACTA' / COMPACT OREGON GRAPE	2 GAL. CONT.	24"-36" O.C.	
	FRAXINUS PENNSYLVANICA "PATMORE" / PATMORE ASH	2" CAL. MIN.	AS SHOWN	3		AZALEA X 'KAREN' / KAREN AZALEA			
	AMELANCHIER GRANDIFLORA 'AUTUMN BRILLIANCE' / AUTUMN BRILLIANCE SERVICEBERRY	2" CAL. MIN.	AS SHOWN	6		BERBERIS THUNBERGII 'GORUZAM' GOLDEN RUBY BARBERRY			
RECOMMENDED STREET TREES FROM CITY OF MARYSVILLE ADMINISTRATIVE LANDSCAPING GUIDELINES						ILEX CRENATA 'CONVEXA' / JAPANESE HOLLY			
<b>SITE TREES</b>						JUNIPERUS SQUAMATA 'BLUE STAR' / BLUE STAR JUNIPER			
	THUJA PLICATA / WESTERN RED CEDAR	6' HT. MIN.	AS SHOWN	5		MORELLA CERIFERA / PACIFIC WAX MYRTLE			
	PSEUDOTSUGA MENZIESII / DOUGLAS FIR	6' HT. MIN.	AS SHOWN	4		PINUS MUGO VAR. SLOWMOUND / DWARF MUGO PINE			
	CHAMAECYPARIS NOOTKATENSIS 'PENDULA' / ALASKA WEEPING CEDAR	6' HT. MIN.	AS SHOWN	11		RHODODENDRON "BLUE DANUBE" / EVERGREEN AZALEA			
	TSUGA MERTENSIANA / MOUNTAIN HEMLOCK	4' HT. MIN.	AS SHOWN	8		VACCINIUM OVATUM / EVERGREEN HUCKLEBERRY			
	ACER CIRCINATUM / VINE MAPLE	8'-10' HT. MULTI-TRUNK 3 TRUNKS MIN.	AS SHOWN	13		MAHONIA REPENS / LOW OREGON GRAPE	4" POT.	18" O.C.	
<b>LANDSCAPE FEATURES AND SITE FURNITURE</b>						ARCTOSTAPHYLOS UVA-URSI / KINNIKINNICK			
	6' HT. SOLID CEDAR FENCE					GERANIUM SANGUINEUM / CRANSBILL			
	PICNIC TABLES AND BENCHES					HELICTOTRICHON SEMPERVIRENS / BLUE OAT GRASS	1 GAL. CONT.	24"-36" O.C.	
	OPEN SPACE HARDSCAPE PAVING TBD					MISCANTHUS SINENSIS 'ADAGIO' / DWARF MAIDEN GRASS			
	4' WIDE CRUSHED ROCK PATH					LAVANDULA ANGUSTIFOLIA 'HIDCOTE BLUE' / ENGLISH LAVANDER			
						HEMEROCALLIS / DAYLILLY			
						RUDBECKIA FULGIDA 'GOLDSTURM' / BLACK EYED SUSAN			
						SEEDED LAWN			



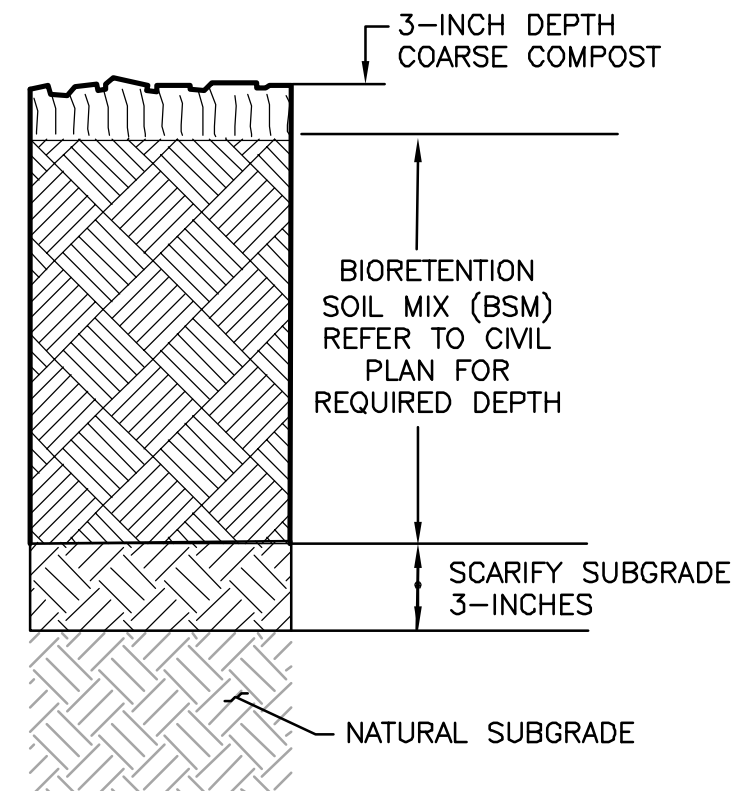
SEE SHEET L1.3 FOR GENERAL LANDSCAPE NOTES



**RAY TOWNHOMES**  
**PRELIM. LANDSCAPE PLAN**  
**L1.0**



**1 BIORETENTION FACILITY**  
N.T.S.



**BIORETENTION SOIL**

**PLANTING PREPARATION NOTES:**

1. PRIOR TO PLACEMENT OF BIORETENTION SOIL MIX (BSM), SCARIFY THE NATURAL OR GRADED SUBGRADE A MINIMUM OF 3-INCHES.
2. PLACE BSM AND COMPACT TO 85% PER ASTM 1577.
3. PLACE 3-INCHES OF COARSE COMPOST IN BIOSWALE BASIN TO OVERFLOW ELEVATION. PLACE 3-INCHES OF BARK MULCH ABOVE OVERFLOW ELEVATION.

**2 BIORETENTION SOIL PREPARATION**  
N.T.S.

**BIORETENTION PLANT SCHEDULE**

SYMBOL	BOTANICAL NAME/COMMON NAME	BOTANICAL NAME/COMMON NAME
	<b>ZONE 1</b> (FREQUENT INUNDATION OR FLOWING WATER)	<b>ZONE 3</b> (DRIER SOILS, INFREQUENTLY SATURATED)
	CORNUS SERICEA 'KELSEYI' / KELSEYI DOGWOOD	MAHONIA AQUIFOLIUM / TALL OREGON GRAPE
	SALIX PURPUREA 'NANA' / DWARF ARCTIC WILLOW	RIBES SANGUINEUM / RED-FLOWERING CURRANT
	SPIRAEA DOUGLASII / DOUGLAS SPIREA	VACCINIUM OVATUM / EVERGREEN HUCKLEBERRY
	IRIS DOUGLASIANA / PACIFIC COAST IRIS	BERBERIS THUNBERGII F. ATROPURPUREA 'CONCORD' / DWARF PURPLE LEAF BARBERRY
	JUNCUS EFFUSUS / COMMON RUSH	RHODODENDRON 'HINO-CRIMSON' / EVERGREEN AZALEA
	CAREX OBNUPTA / SLOUGH SEDGE	VIBURNUM DAVIDII / DAVID'S VIBURNUM
	<b>ZONE 2</b> (PERIODIC MOIST SOILS)	HELICTOTRICHON SEMPERVIRENS / BLUE OAT GRASS
	MORELLA CALIFORNICA / PACIFIC WAX MYRTLE	FRAGARIA CHILOENSIS / BEACH STRAWBERRY
	LONICERA INVOLCRATA / BLACK TWINBERRY	ARCTOSTAPHYLOS UVA-URSI / KINNIKINNICK
	PHILADELPHUS LEWISII / MOCK ORANGE	ACHILLEA MILLEFOLIUM / WESTERN YARROW
	PHYSOCARPUS CAPITATUS / PACIFIC NINEBARK	
	SYMPHORICARPOS ALBUS / SNOWBERRY	

**GENERAL PLANTING NOTES**

1. NO IRRIGATION SYSTEM IS PLANNED FOR THE PROJECT. ALL PLANTING WITHIN THE DESIGNATED LANDSCAPE AREAS AND TREES ARE NATIVE SPECIES, DROUGHT TOLERANT OR NW ADAPTED SPECIES. THE CONTRACTOR &/ OR DEVELOPER SHALL BE RESPONSIBLE FOR HAND WATERING OR PROVIDING A TEMPORARY IRRIGATION SYSTEM FOR PLANT ESTABLISHMENT DURING THE FIRST 3-5 YEARS. FOR THE LIFE OF THE PROJECT IT SHALL BE THE RESPONSIBILITY OF THE HOME OWNERS ASSOCIATION TO WATER PLANTS DURING PERIODS OF PROLONGED DROUGHTS.
2. REFER TO CIVIL PLANS FOR NEW UTILITY WORK. CONTRACTOR RESPONSIBLE FOR PATCHING AND REPAIRING ALL EXISTING LANDSCAPE AREAS DISTURBED BY CONSTRUCTION UNDER THIS CONTRACT.
3. GRADING SHALL BE ACCEPTED PRIOR TO PLANT INSTALLATION. FINISHED GRADE FOR NEW PLANTING AREAS SHALL ALLOW FOR TOPSOIL AND BARK MULCH AND 1-INCH CLEAR TO TOP OF CURB OR SIDEWALK.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND HAULING ALL EXTRA DEBRIS AND EXCESS SOIL GENERATED BY THIS PROJECT.

**PLANTING, FERTILIZING AND WARRANTY**

5. ALL PLANT SIZES NOTED FOR HEIGHT, SPREAD AND CALIPER ARE MINIMUM REQUIREMENTS.
6. ALL PLANTS SHALL CONFORM TO AMERICAN ASSOCIATION OF NURSERYMAN (AAN) GRADES AND STANDARDS AS PUBLISHED IN THE MOST RECENT Z60.1 "AMERICAN STANDARD FOR NURSERY STOCK" MANUAL. TREE CALIPER SHALL BE MEASURED SIX INCHES ABOVE THE ROOT FLARE.
7. AREAS DISTURBED BY GRADING AND NOT SHOWN AS PLANTING / LAWN AREAS SHALL BE SEEDED.
8. APPLY FERTILIZER TO ALL LAWN, GROUNDCOVER, SHRUB AND TREE PLANTING AREAS. FOLLOW MANUFACTURER'S RECOMMENDATIONS FOR FERTILIZER TYPE (N-P-K RATIO) FOR LAWN, ORNAMENTAL SHRUBS, AND TREES.

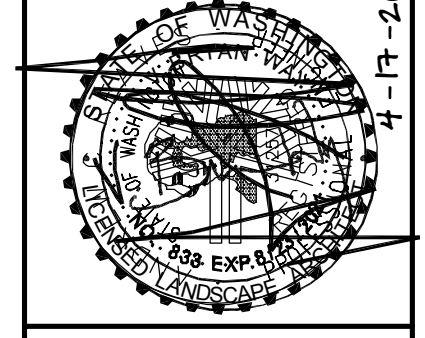
**TOPSOIL, COMPOST AND MULCH**

9. REMOVE SUBGRADE MATERIAL TO ACCOMMODATE TOPSOIL, BARK, SOD LAWN WITH 1" CLEAR TO TOP OF CURB, SIDEWALK OR OTHER PAVED SURFACES.
10. REFER TO PLANTING PREPARATION DETAIL SHEET L1.3 FOR TOPSOIL AND COMPOST REQUIREMENTS.
11. COMPOST SUPPLIED BY CEDAR GROVE, (877) 764-5748, OR APPROVED EQUAL.
12. TOPSOIL SHALL BE A 3-WAY (LOAM SOIL, PEAT AND COMPOST) SUPPLIED BY CEDAR GROVE, (877) 764-5748 OR APPROVED EQUAL.
13. BARK MULCH SHALL BE HEMLOCK / FIR MEDIUM GRIND.

REVISIONS	No.	Description	Date

TS	Drawn By NKJ	Designed By NKJ	Checked By KJM	Approved By 1-2-20	Date
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Horiz. Scale	Vert. Scale	418-001-18	Project No.



1724 West Marine View Drive, Suite 140  
Everett, WA 98201  
P. 425.486.6533 | F. 425.486.6593  
Civil | Structural | Planning | Survey  
www.paceengs.com



Client:  
RAY TOWNHOMES  
8324 99TH AVE NE  
MARYSVILLE, WA 98270

SCOTT RAY  
Contact

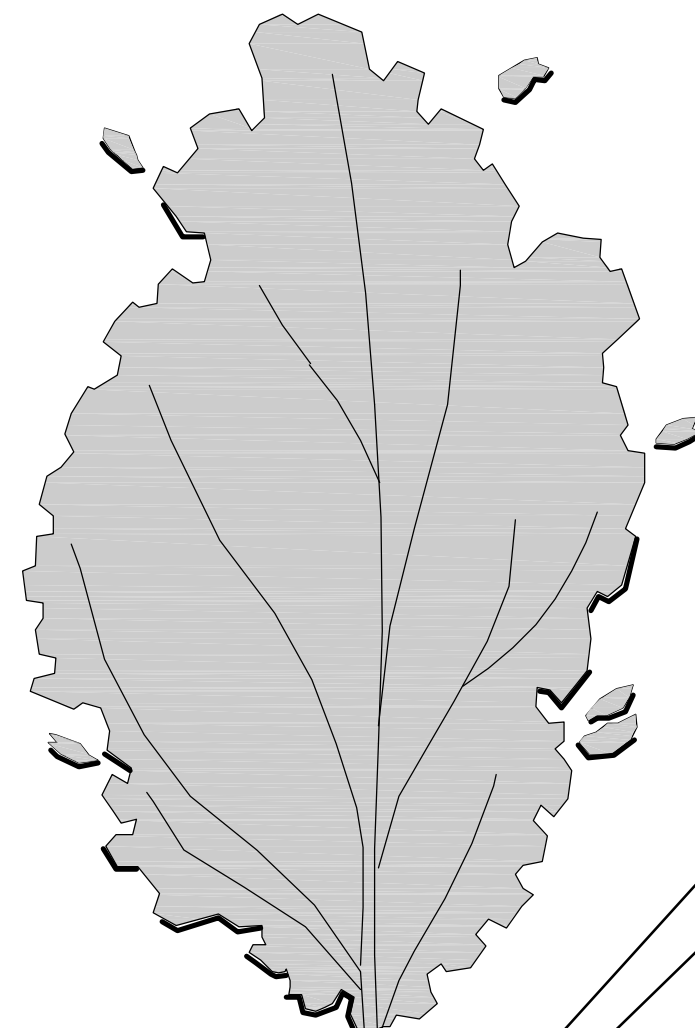
**RAY TOWNHOMES**

**BIO. PLANTING & NOTES**

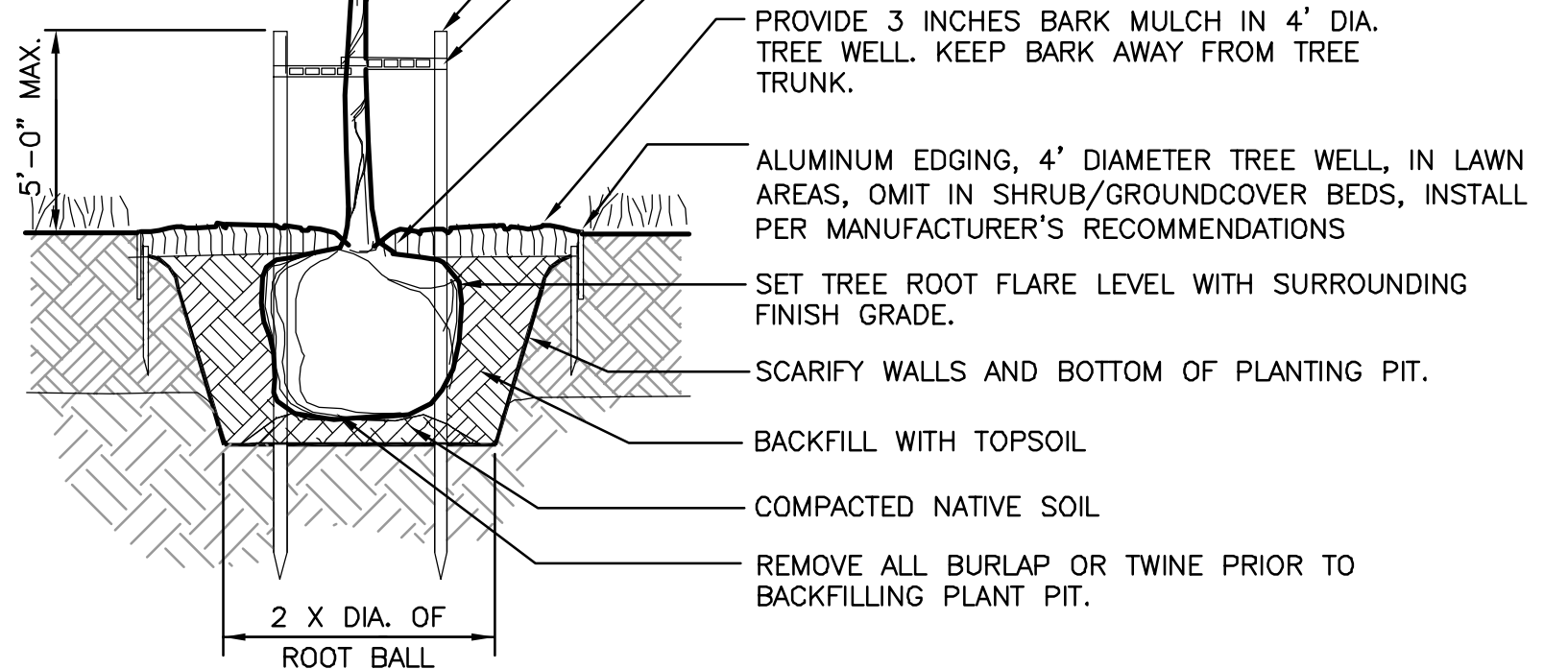
**L1.2**



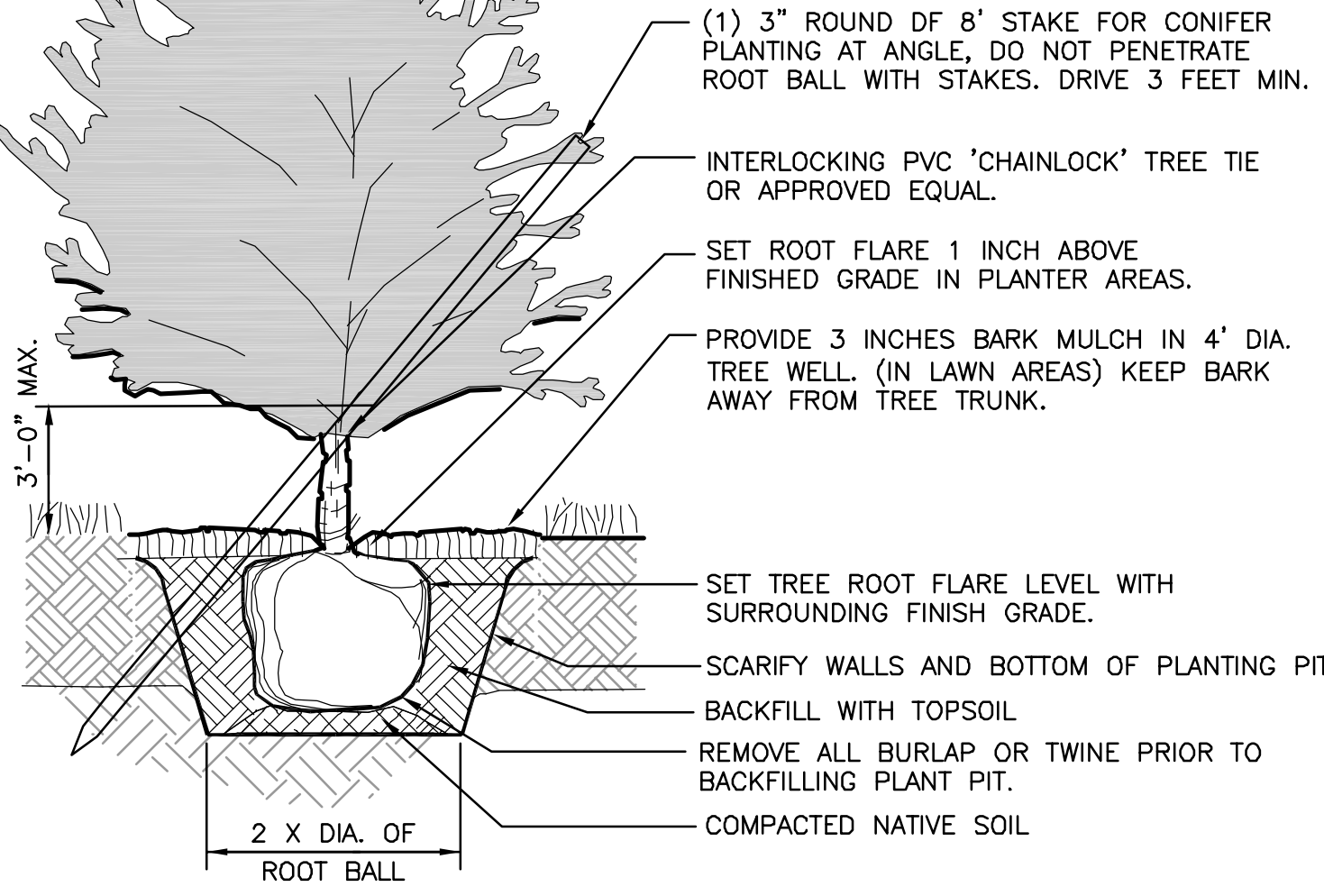
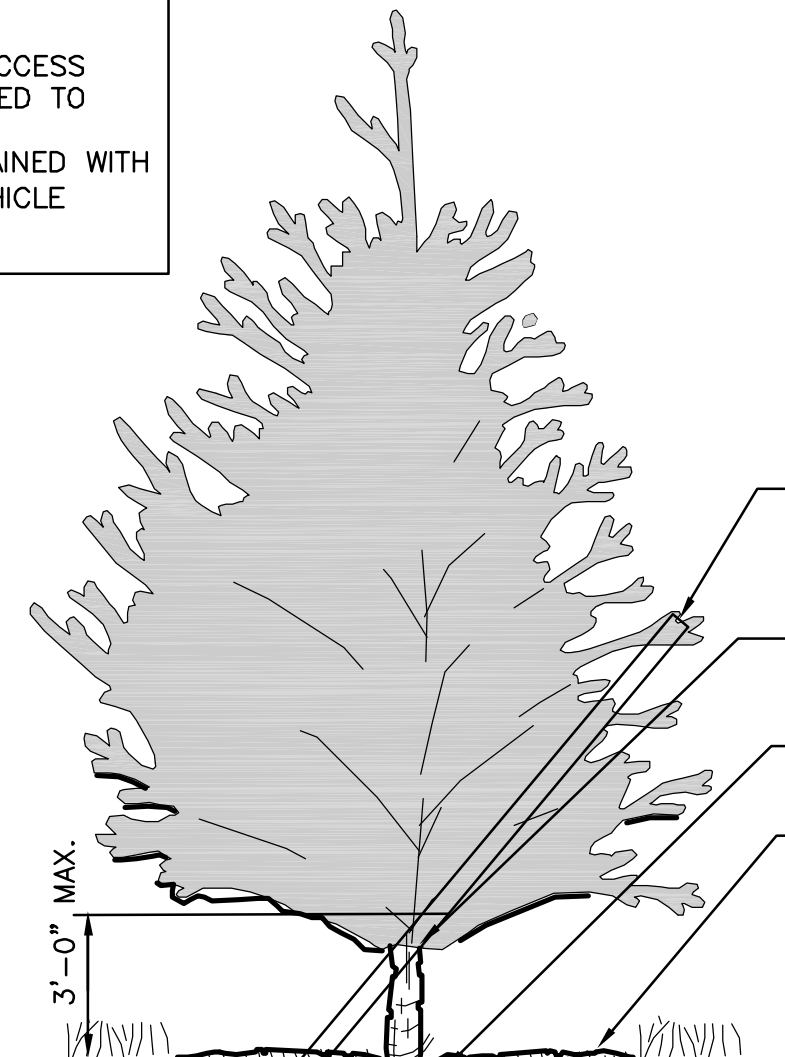




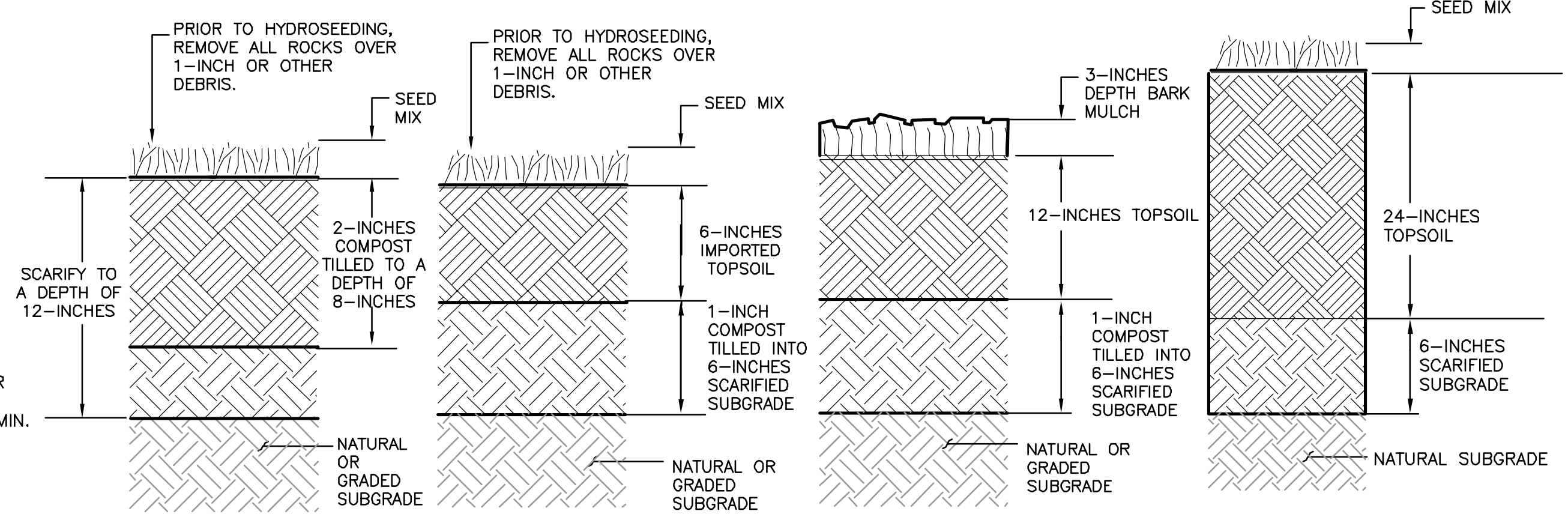
AFTER PLANTING PRUNE BRANCHES AS REQUIRED FOR THE FOLLOWING CONDITIONS:  
 ANY BRANCHES THAT MAY OBSTRUCT A PEDESTRIAN ACCESS ROUTE BELOW 80-INCHES IN HEIGHT SHALL BE PRUNED TO COMPLY WITH FEDERAL ADA REGULATIONS.  
 TREES ADJACENT TO THE FIRE LANE SHALL BE MAINTAINED WITH A MINIMUM CANOPY HEIGHT OF 13'-6" OVER THE VEHICLE ACCESS DRIVE TO COMPLY WITH 2012 FIRE CODE.



**1 DECIDUOUS TREE PLANTING DETAIL**  
 NTS



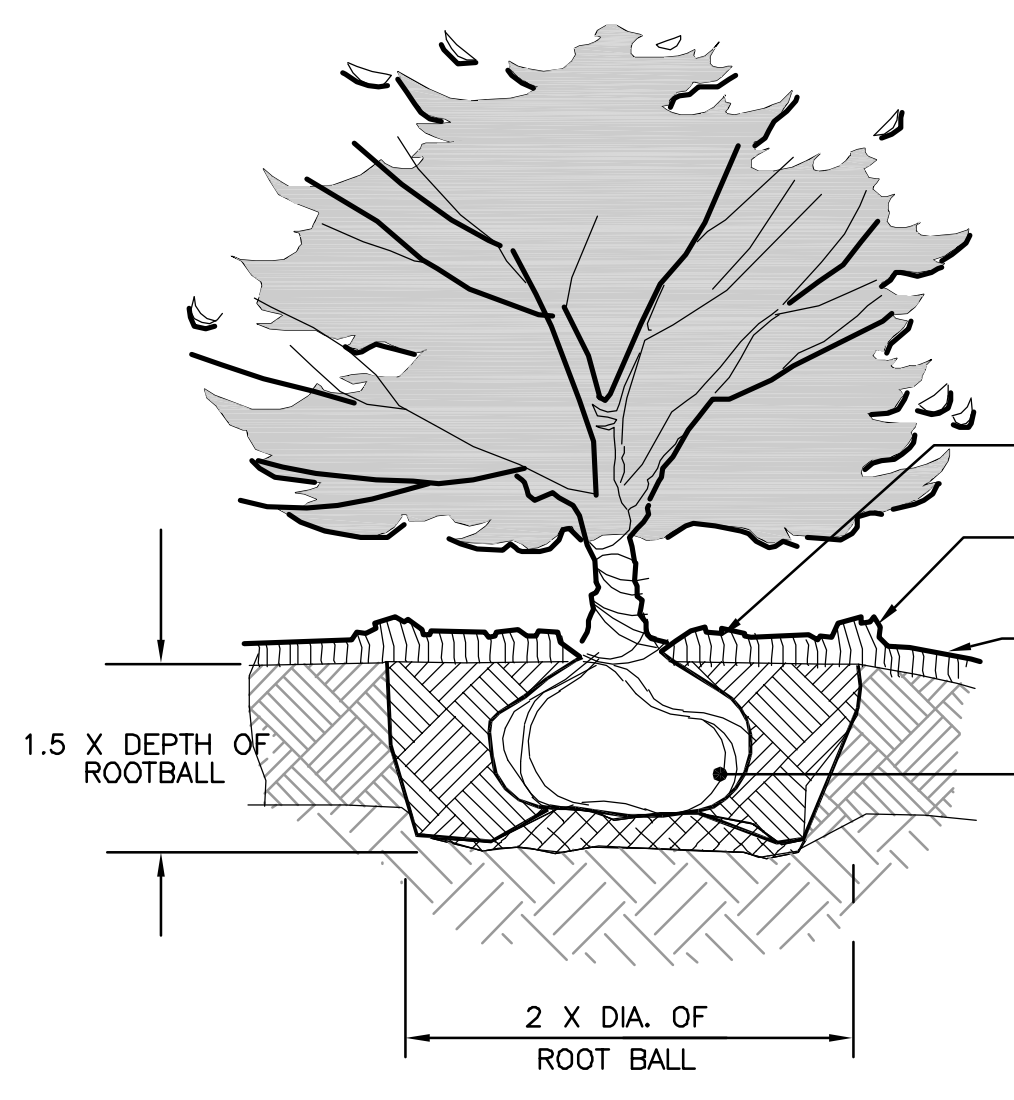
**2 CONIFER / MULTI TRUNK PLANTING DETAIL**  
 NTS



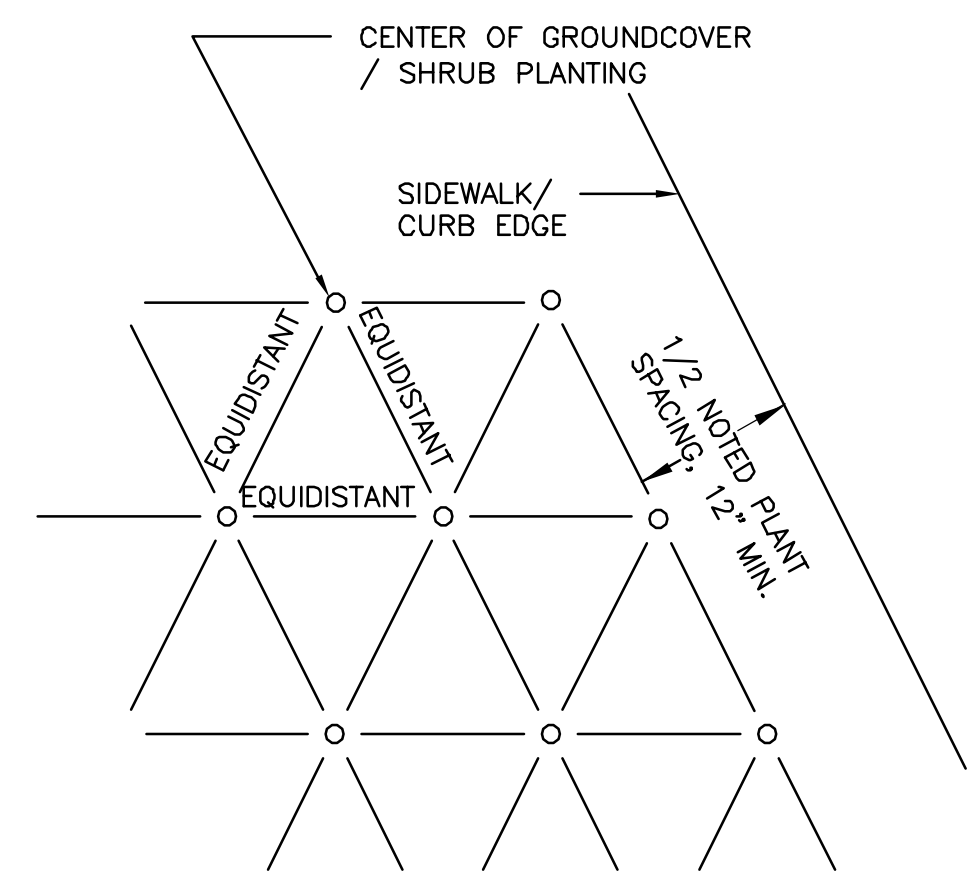
**PLANTING PREPARATION NOTES:**

- ALL NEW PLANTING BEDS, PLANTING PITS, MAINTAINED LAWN AREAS AND PLANTING STRIPS IN THE ROW TO RECEIVE MANUFACTURED TOPSOIL WITH A MINIMUM ORGANIC CONTENT OF 8-13% AS REQUIRED.
- ALL AREAS IMPACTED BY CLEARING AND GRADING AND NOT PLANTED OR OTHERWISE COVERED BY IMPERVIOUS SURFACE SHALL BE AMENDED AS SHOWN IN THE DISTURBED AREAS SOIL PREPARATION DETAIL AND AS REQUIRED BY DOE BMP T5.13.
- DOE BMP T5.13 REQUIREMENTS FOR TURF AREAS, TOPSOIL SHALL MEET THE FOLLOWING STANDARDS:
  - TOPSOIL MUST HAVE A MINIMUM ORGANIC MATTER CONTENT OF 5%,
  - PH RANGE FROM 6.0 TO 8.0
  - TOPSOIL OR AMENDED LAYER SHALL BE A MINIMUM DEPTH OF 8-INCHES.
  - COMPOST MUST HAVE AN ORGANIC MATTER CONTENT OF 40% TO 65%, AND A CARBON TO NITROGEN RATIO BELOW 25:1.

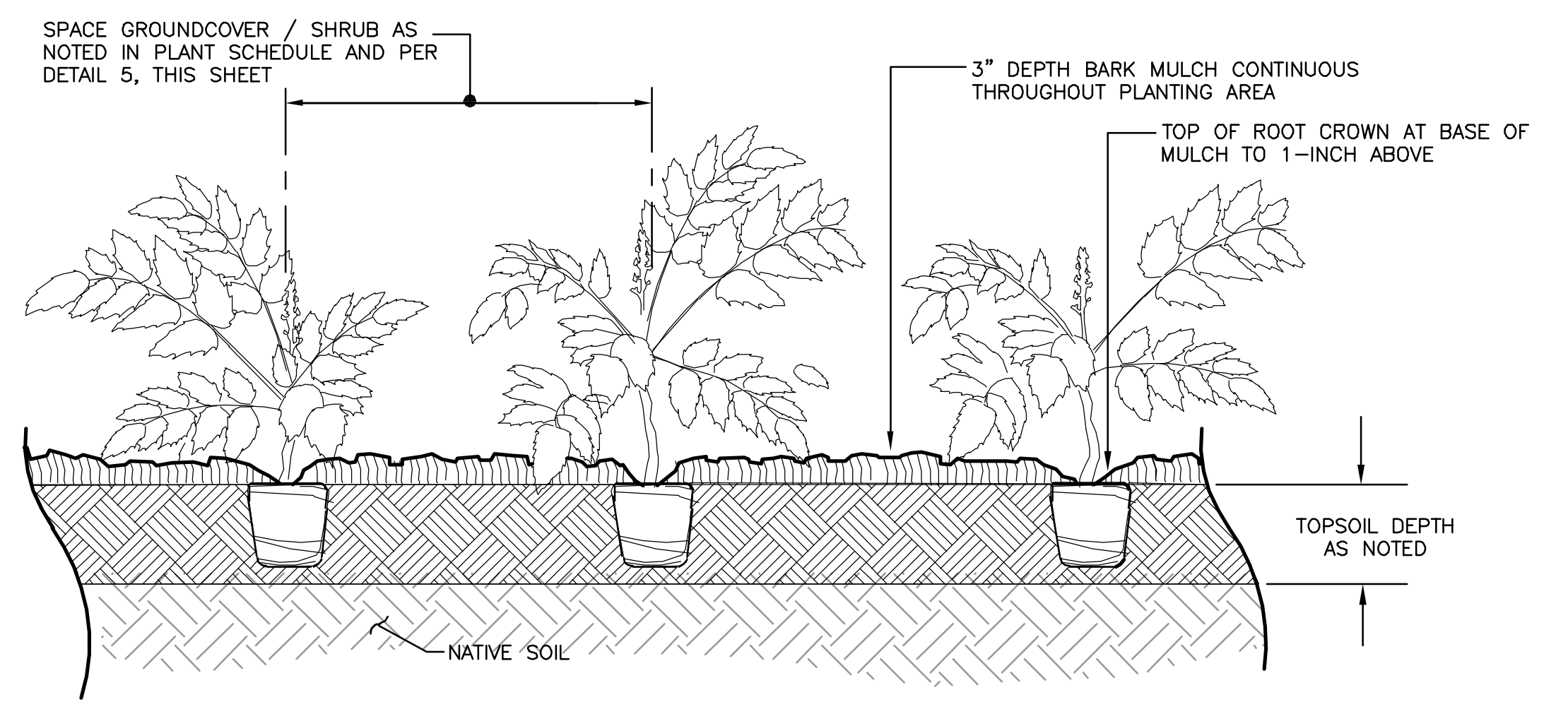
**3 PLANTING PREPARATION**  
 NTS



**4 SHRUB PLANTING DETAIL**  
 NTS



**5 GROUNDCOVER / SHRUB SPACING**  
 NTS



**6 GROUNDCOVER PLANTING DETAIL**  
 NTS

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TS	Drawn By	NKJ		
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**S D A**

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**RAY TOWNHOMES**

**LANDSCAPE DETAILS**

