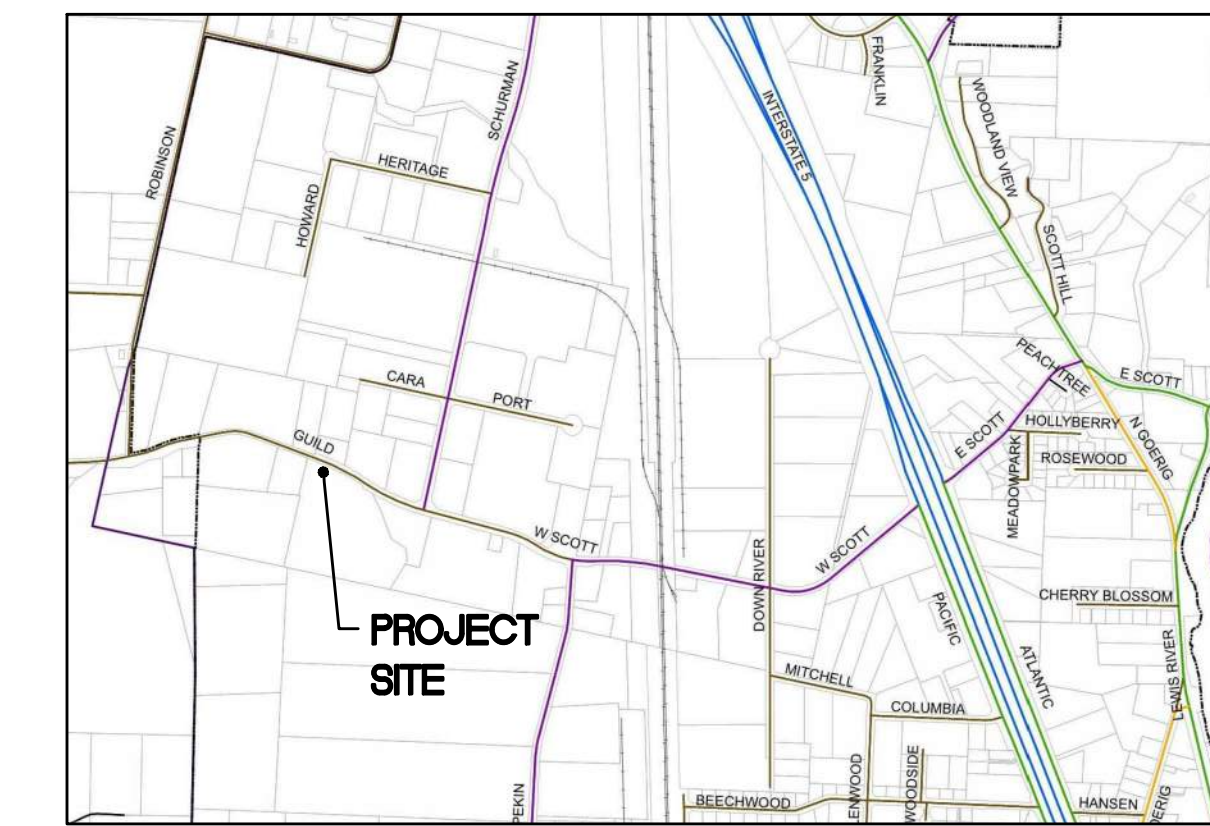


# PORT OF WOODLAND ROSE WAY INDUSTRIAL PARK

1435 GUILD ROAD, WOODLAND, WA - PARCEL #508310-100



VICINITY MAP  
N.T.S.

**PORT OF WOODLAND:**  
**COMMISSION**  
ROBERT WILE - PRESIDENT  
PAUL CLINE - SECRETARY  
DALE BOON - COMMISSIONER  
**EXECUTIVE DIRECTOR**  
JENNIFER WRAY-KEENE

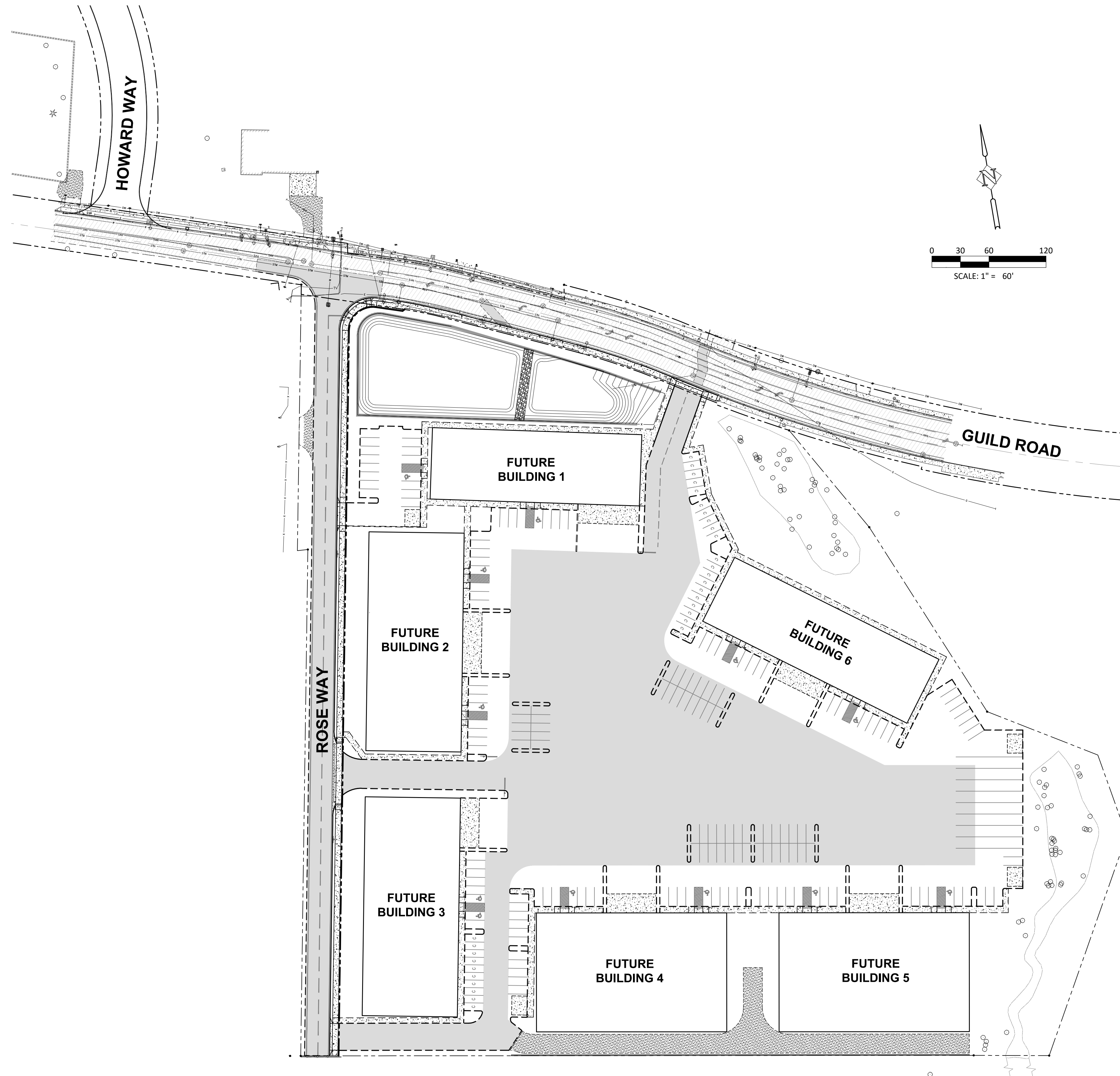
**SITE INFORMATION:**  
-ADDRESS: 1435 GUILD ROAD  
-COUNTY PARCEL: #508310100  
-SITE AREA: 12 ACRES

**PROJECT OWNER**  
CONTACT: JENNIFER WRAY-KEENE  
PORT OF WOODLAND  
1608 GUILD ROAD  
PO. BOX 87  
WOODLAND, WA 98674  
TEL: 360.225.6555  
EMAIL: JKEENE@PORTOFWOODLAND.COM

**SURVEYOR**  
HARPER HOUF PETERSON RIGHELLI INC.  
205 SE SPOKANE STREET, SUITE 200  
PORTLAND, OR 97202  
TEL: 503.221.1131  
FAX: 503.221.1171

**CIVIL ENGINEER**  
CONTACT: KEN VALENTINE, P.E.  
HARPER HOUF PETERSON RIGHELLI INC.  
1220 MAIN STREET, SUITE 150  
VANCOUVER, WA 98660  
TEL: 360.750.1131  
FAX: 360.750.1141  
EMAIL: KEN@HHPR.COM

**GEOTECHNICAL ENGINEER**  
CONTACT: LANCE LEHTO, P.E.  
COLUMBIA WEST ENGINEERING INC.  
11917 NE 95TH STREET  
VANCOUVER, WA 98682  
TEL: 360.823.2900  
FAX: 360.823.2901  
EMAIL: LANCE.LEHTO@GMAIL.COM



SITE MAP

**SHEET INDEX**

- C1.00 COVER SHEET
- C1.01 GENERAL NOTES AND LEGEND
- C1.02 EXISTING CONDITIONS
- C1.03 SITE DEMOLITION PLAN
- C2.01 SITE PLAN
- C2.02 SITE DIMENSION PLAN
- C3.01 GRADING AND EROSION CONTROL PLAN
- C3.02 GRADING DETAILS
- C4.01 STORM DRAINAGE PLAN
- C4.02 SANITARY SEWER PLAN
- C4.03 WATER PLAN
- C4.04 PRIVATE UTILITY PLAN
- C5.01 TREATMENT DETENTION POND AND CROSS SECTIONS
- C6.01 ROSE WAY PLAN AND PROFILE
- C6.02 GUILD ROAD PLAN AND PROFILE
- C6.03 PUBLIC SIGNING AND STRIPING PLAN
- C7.01 SITE NOTES AND DETAILS
- C7.02 EROSION CONTROL NOTES AND DETAILS
- C7.03 STORM DRAINAGE NOTES AND DETAILS
- C7.04 SANITARY SEWER NOTES AND DETAILS
- C7.05 WATER NOTES AND DETAILS
- C7.06 PUBLIC IMPROVEMENTS NOTES AND DETAILS
- C7.07 PUBLIC IMPROVEMENTS NOTES AND DETAILS
- C7.08 PUBLIC IMPROVEMENTS NOTES AND DETAILS
- C8.01 STRUCTURAL WALL NOTES AND DETAILS
- C8.02 STRUCTURAL WALL NOTES AND DETAILS
- C8.03 STRUCTURAL WALL AND FENCING DETAILS
  
- L1.01 PLANTING PLAN (NORTH)
- L1.02 PLANTING PLAN (SOUTH)
- L1.03 PLANTING DETAILS
- L2.01 IRRIGATION PLAN (NORTH)
- L2.02 IRRIGATION PLAN (SOUTH)
- L2.03 IRRIGATION DETAILS

CITY OF WOODLAND Phone: (360) 225-7999  
PUBLIC WORKS DEPARTMENT Fax: (360) 225-7487  
PO Box 9 - 300 E Scott Ave  
Woodland, WA 98674  
www.ci.woodland.wa.us

Plans Reviewed for Compliance with City Standards and Policies

Permit Number: \_\_\_\_\_  
Recommended for Approval: \_\_\_\_\_ Date: 12-14-20  
Public Works Director

Improvement Summary			
Street Improvements	810	LF	
Water Main Footage	2,750	LF	
Sewer Main Footage	800	LF	
Septic System Decommission	N/A	EA	
Trenching with City Right-of-Way	105	LF	
Total Impervious Surface	151,400	SF	
Private Impervious Surface	2.9	AC	
Grading	Cut 10,500	CY	Fill 15,000 CY

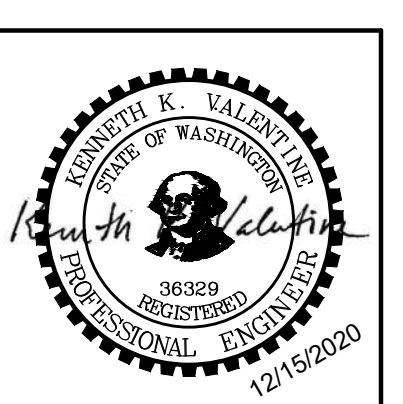
CITY OF WOODLAND Phone: (360) 225-7078  
FIRE DEPARTMENT Fax: (360) 225-1204  
PO Box 9 - 100 Davidson Ave  
Woodland, WA 98674  
www.ci.woodland.wa.us

Plans Reviewed for Compliance with City Standards and Policies

Permit Number: \_\_\_\_\_  
Recommended for Approval: \_\_\_\_\_ Date: 12/11/2020  
Plan Approved by CCF&R

COVER SHEET  
ROSE WAY INDUSTRIAL PARK  
WOODLAND, WASHINGTON

Harper Houf Peterson Righellis Inc.  
ENGINEERS \* PLANNERS  
LANDSCAPE ARCHITECTS \* SURVEYORS  
1220 Main Street, Suite 150, Vancouver, WA, 98660  
phone: 360.750.1131 www.hhpr.com fax: 360.750.1141



DESIGNED:	KKV	HHPR	RAV	DATE:	12/15/2020
DRAWN:					
CHECKED:					
DATE:					
NO.					
DESCRIPTION:					
R E V I S I O N S					
SHEET NO. C1.00					
JOB NO. PWL-03					

EDA CONTRACT NO. 07-01-07554  
CERB CONTRACT NO. S19-79-0A0-187

**GENERAL NOTES**

- CONTRACTOR SHALL ASSURE THAT ALL NECESSARY PERMITS HAVE BEEN OBTAINED PRIOR TO COMMENCING WORK.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION, DIMENSION, AND DEPTH OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION WHETHER SHOWN ON THESE PLANS OR NOT. UTILITIES OTHER THAN THOSE SHOWN MAY EXIST ON THIS SITE. ONLY THOSE UTILITIES WITH EVIDENCE OF THEIR INSTALLATION VISIBLE AT GROUND SURFACE OR SHOWN ON THE RECORD DRAWING PROVIDED BY OTHERS ARE SHOWN HEREON. EXISTING UNDERGROUND UTILITY LOCATION SHOWN ARE APPROXIMATE ONLY AND ARE SUBJECT TO A DEGREE OF UNKNOWN VARIATION. SOME UNDERGROUND LOCATIONS SHOWN HEREON MAY HAVE BEEN TAKEN FROM PUBLIC RECORDS. OWNER ASSUMES NO LIABILITY FOR THE ACCURACY OF PUBLIC RECORDS OF OTHERS. IF CONFLICTS SHOULD OCCUR, THE CONTRACTOR SHALL CONSULT THE OWNER AND ENGINEER TO RESOLVE ALL PROBLEMS PRIOR TO PROCEEDING WITH CONSTRUCTION.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW ALL DRAWINGS AND SPECIFICATIONS ASSOCIATED WITH THE WORK SCOPE PRIOR TO THE INITIATION OF CONSTRUCTION. SHOULD THE CONTRACTOR FIND A CONFLICT WITH THE DOCUMENTS RELATIVE TO THE SPECIFICATIONS OR RELATED TO CODES, IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE OWNER AND ENGINEER IN WRITING PRIOR TO THE START OF CONSTRUCTION. FAILURE BY THE CONTRACTOR TO NOTIFY THE OWNER AND ENGINEER SHALL CONSTITUTE ACCEPTANCE BY THE CONTRACTOR FOR THE RESPONSIBILITY TO COMPLETE THE SCOPE OF WORK AS DEFINED BY THE DRAWING AND IN FULL COMPLIANCE WITH THE LOCAL REGULATIONS AND CODES.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE APPROPRIATE UTILITIES INVOLVED PRIOR TO CONSTRUCTION.
- INSPECTION OF PUBLIC IMPROVEMENTS WILL BE ACCOMPLISHED BY A REPRESENTATIVE OF THE LOCAL JURISDICTION. INSPECTION OF IMPROVEMENTS THAT WILL NOT BE OWNED BY THE CITY WILL BE ACCOMPLISHED BY A REPRESENTATIVE OF THE OWNER. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE INSPECTOR 24 HOURS IN ADVANCE OF BACKFILLING ALL CONSTRUCTION.
- CONTRACTOR SHALL FIELD LOCATE ALL MONUMENTS WITHIN THE AREA OF DISTURBANCE PRIOR TO CONSTRUCTION AND PROTECT FROM DISTURBANCE/DESTRUCTION TO THE MAXIMUM EXTENT FEASIBLE. IF IT IS NECESSARY TO REMOVE OR REPLACE A MONUMENT DURING CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE LOCAL JURISDICTION HAVING AUTHORITY AND BE FULLY RESPONSIBLE FOR OBTAINING PERMITS FROM THE WASHINGTON STATE DEPARTMENT OF NATURAL RESOURCES PRIOR TO DISTURBANCE, DESTRUCTION OR RELOCATION PER THE WASHINGTON ADMINISTRATION CODE. MONUMENTS THAT ARE DISPLACED, REMOVED, OR DESTROYED SHALL BE REPLACED BY A REGISTERED LAND SURVEYOR AT THE COST AND AT THE DIRECTION OF THE CONTRACTOR PURSUANT TO THESE REGULATIONS.

**PROPOSED USES**

LIGHT INDUSTRIAL, WAREHOUSING, AND MANUFACTURING.

**GRADING**

ALL EXCAVATIONS SHOULD BE MADE IN ACCORDANCE WITH APPLICABLE FEDERAL AND STATE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION REGULATIONS.

FOR GENERAL SITE GRADING; CONTOUR LINES, SPOT ELEVATIONS AND GENERAL DRAINAGE FLOW DEFINED BY SLOPES AND SWALES HAVE BEEN SHOWN. THE ELEVATIONS SHOWN ARE MINIMUM ELEVATIONS REQUIRED TO PROMOTE DRAINAGE IN A CONTROLLED DRAINAGE PATTERN. ANY DEVIATION FROM THIS GRADING PLAN SHALL FIRST BE COORDINATED WITH THE ENGINEER.

CONTRACTOR SHALL FOLLOW RECOMMENDATIONS PROVIDED BY THE GEOTECHNICAL ENGINEER AS TO STRUCTURAL FILL, PLACEMENT, COMPACTION AND METHODOLOGY.

VEGETATED AREAS SLATED FOR CONSTRUCTION ARE TO BE STRIPPED TO REMOVE ALL GRASS, ROOTS, ORGANIC SOIL, AND CONSTRUCTION FILL DEBRIS PRIOR TO THE BEGINNING OF ANY GRADING OPERATIONS. THE CONTRACTOR SHALL SALVAGE AND STOCKPILE ENOUGH SELECT TOP SOIL TO ACCOMMODATE LANDSCAPING NEEDS.

FOLLOWING STRIPPING AND GRUBBING, THE EXPOSED SOILS SHALL BE PROOF ROLLED TO REVEAL WEAK, ORGANIC, OR OTHER UNSUITABLE SOILS. UNSUITABLE SOILS SHALL BE EXCAVATED TO FIRM GROUND AND FILLED TO GRADE WITH SUITABLE NATIVE OR STRUCTURAL FILL. THE GEOTECHNICAL ENGINEER IS TO APPROVE ALL SUBGRADE PREPARATION PRIOR TO PLACING FILL MATERIAL.

EXPOSED SUBGRADE SOILS ON AREAS TO RECEIVE STRUCTURAL FILL SHOULD BE SCARIFIED TO A DEPTH OF 8 INCHES.

FILL AREAS SHALL BE STRUCTURALLY FILLED WITH SURPLUS SUITABLE MATERIALS FROM CUT AREAS OR IMPORTED STRUCTURAL FILL; BOTH OF WHICH SHALL BE APPROVED BY THE SITE GEOTECHNICAL ENGINEER. SELECT MATERIALS SHALL BE PLACED AND COMPACTED IN FILL AREAS IN LIFTS NOT TO EXCEED 12" OR AS APPROVED BY THE SITE GEOTECHNICAL ENGINEER.

ALL COMPACTION TESTING SHALL BE DONE PER THE GEOTECHNICAL ENGINEER'S RECOMMENDATIONS.

AT THE END OF THE GRADING OPERATION, THE STOCKPILED STRIPPINGS SHALL BE DISTRIBUTED ON THE LANDSCAPE AREAS IN A COMPACTED DEPTH NOT TO EXCEED 12".

ALL DELETERIOUS MATERIALS GENERATED DURING SITE GRADING AND STRIPPINGS NOT UTILIZED IN THE FINAL GROUND COVER OPERATION SHALL BE HAULED FROM THE SITE TO A CONTRACTOR PROVIDED LEGAL AND PERMITTED WASTE/DUMP SITE.

ALL SURFACES SHALL BE GRADED SMOOTH AND FREE OF IRREGULARITIES THAT MIGHT ACCUMULATE SURFACE WATER.

THE CONTRACTOR SHALL REMOVE ALL SILT AND DEBRIS RESULTING FROM THIS WORK WHICH HAS BEEN DEPOSITED IN DRAINAGE FACILITIES, ROADWAYS AND OTHER AREAS IMMEDIATELY AFTER EACH RAINFALL EVENT. THE COST INCURRED FOR ANY NECESSARY REMEDIAL ACTION SHALL BE PAYABLE BY THE CONTRACTOR.

BEST MANAGEMENT PRACTICES (BMP) SHALL BE EMPLOYED AT ALL TIMES TO THE MAXIMUM EXTENT PRACTICABLE TO PREVENT DAMAGE BY SEDIMENTATION, EROSION OR DUST TO STREAMS, WATER COURSES, NATURAL AREAS AND THE PROPERTY OF OTHERS.

ALL RETAINING WALLS WILL REQUIRE A SEPARATE BUILDING PERMIT PRIOR TO CONSTRUCTION. RETAINING WALLS LESS THAN FOUR FEET IN HEIGHT THAT DO NOT HAVE SURCHARGE ARE EXEMPT FROM THIS CONDITION.

**EROSION CONTROL**

EROSION CONTROL WILL BE PROVIDED DURING CONSTRUCTION AS REQUIRED BY CITY OF WOODLAND AND THE WASHINGTON STATE DEPT. OF ECOLOGY. EROSION CONTROL MEASURES MAY INCLUDE, BUT ARE NOT LIMITED TO, TEMPORARY SEDIMENT PONDS, EROSION CONTROL SEDIMENT FENCING, INLET PROTECTION, AND GRAVEL CONSTRUCTION ENTRANCES.

**STORM DRAINAGE**

THE PROPOSED STORM DRAINAGE SYSTEM WILL INCLUDE TYPICAL CATCH BASINS OR CURB CUTS FOR COLLECTION, WITH CONVEYANCE PRIMARILY BY CATCH BASIN AND UNDERGROUND STORM PIPING. PIPES SHALL BE DUAL WALL N-12 HDPE PIPE UNLESS STATED OTHERWISE.

WATER QUALITY TREATMENT WILL BE ACHIEVED VIA WET POND FACILITIES AND WILL BE PROVIDED FOR ALL POLLUTION GENERATING IMPERVIOUS SURFACES.

WATER QUANTITY WILL BE ACHIEVED VIA DETENTION POND. A FLOW CONTROL DEVICE WILL RELEASE THE STORMWATER TO THE GEORIG SLOUGH AT A RATE THAT MEETS DEPARTMENT OF ECOLOGY AND CITY OF WOODLAND REQUIREMENTS.

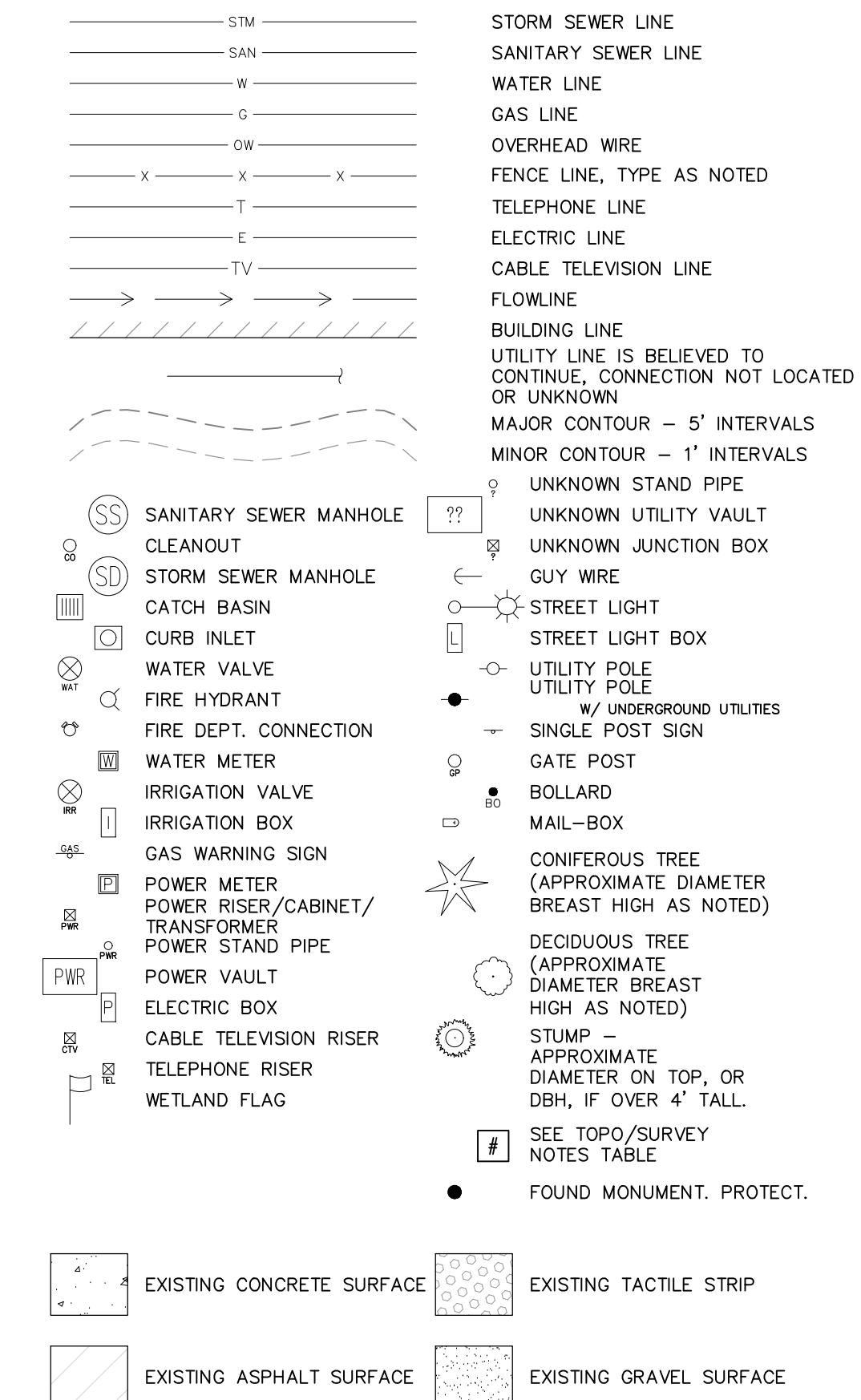
**SANITARY SEWER**

A PORTION OF THE SITE WILL DISCHARGE TO THE GRAVITY SEWER THAT LEADS TO THE HOWARD WAY PUMP STATION. THE REMAINDER OF THE SITE WILL DISCHARGE BY GRAVITY TO THE SCHURMAN WAY SYSTEM. SANITARY SEWER PIPE SHALL BE PVC D-3034.

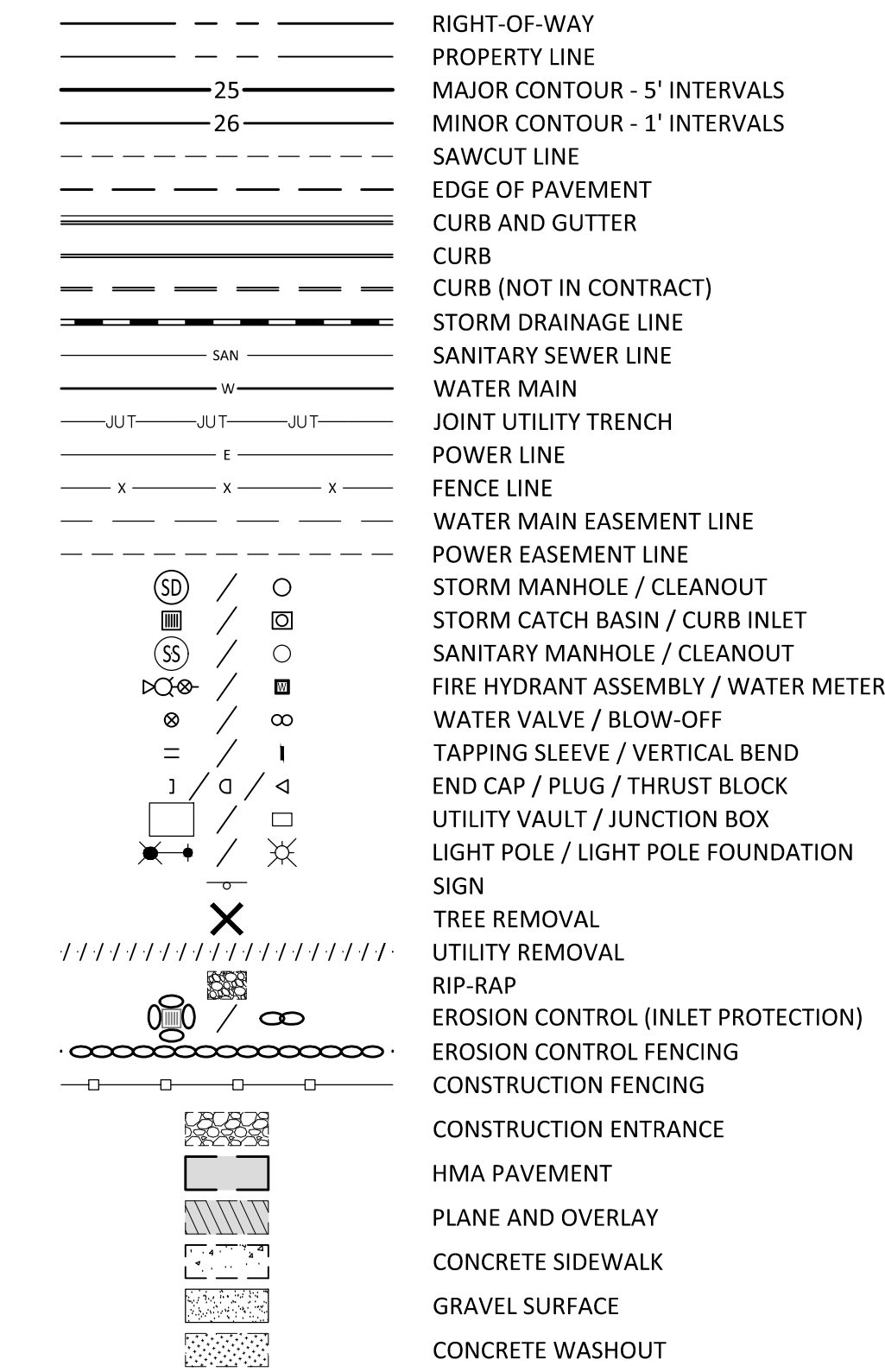
**WATER**

THE NEW DOMESTIC AND FIRE PROTECTION SERVICES WILL CONNECT TO THE EXISTING 12" C900 PVC PUBLIC MAIN IN GUILD ROAD. A NEW FIRE LOOP TO SERVE ON-SITE HYDRANTS WILL BE EXTENDED THROUGH THE SITE IN AN EASEMENT.

**EXISTING LEGEND (TYP)**

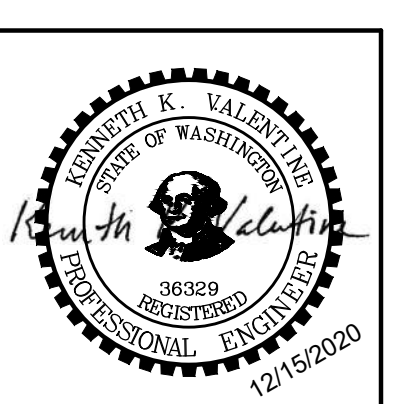


**PROPOSED LEGEND**

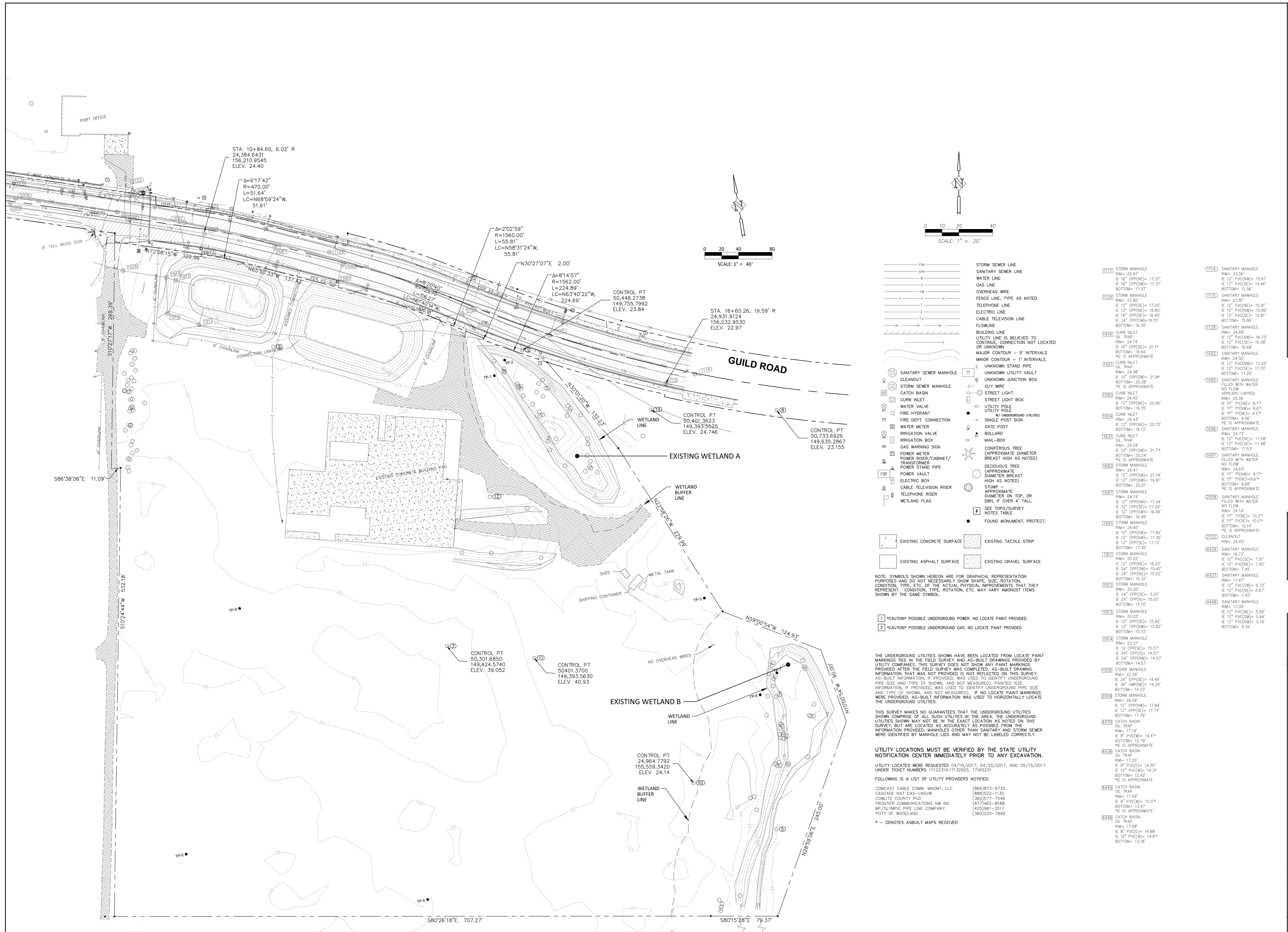


**GENERAL NOTES AND LEGEND**  
**ROSE WAY INDUSTRIAL PARK**  
 WOODLAND, WASHINGTON

**Harper Houf Peterson Righellis Inc.**  
 ENGINEERS + PLANNERS  
 LANDSCAPE ARCHITECTS + SURVEYORS  
 1220 Main Street, Suite 150, Vancouver, WA 98660  
 phone: 360.750.1131 www.hhpri.com fax: 360.750.1141



DESIGNED:	KKV
DRAWN:	HHPR
CHECKED:	RAV
DATE:	12/15/2020
NO.	
DATE	
DESCRIPTION	
R E V I S I O N S	
SHEET NO.	
<b>C1.01</b>	
JOB NO.	PWL-03



STA. 10+84.60, 6.02' R  
24,384.6431  
156,210.9545  
ELEV. 24.40

$\Delta=6'17'42''$   
 $R=470.00'$   
 $L=51.64'$   
 $LC=N68'59'24''W,$   
 $55.61'$

$\Delta=2'02'59''$   
 $R=1560.00'$   
 $L=55.81'$   
 $LC=N58'31'24''W,$   
 $55.81'$

$\Delta=81'4'57''$   
 $R=1562.00'$   
 $L=224.89'$   
 $LC=N63'40'22''W,$   
 $224.69'$

STA. 16+60.26, 19.59' R  
24,931.9124  
166,032.9530  
ELEV. 22.97

CONTROL PT  
50,401,3623  
149,393,5525  
ELEV. 24.746

CONTROL PT  
50,733,6926  
149,635,2867  
ELEV. 23.155

CONTROL PT  
50,401,3700  
149,393,5630  
ELEV. 40.93

CONTROL PT  
24,964,7792  
155,559,3400  
ELEV. 24.14

- STM — STORM SEWER LINE
- SAN — SANITARY SEWER LINE
- W — WATER LINE
- G — GAS LINE
- OW — OVERHEAD WIRE
- T — TELEPHONE LINE
- E — ELECTRIC LINE
- TV — CABLE TELEVISION LINE
- F — FENCE LINE, TYPE AS NOTED

- SS SANITARY SEWER MANHOLE
- STM STORM SEWER MANHOLE
- CB CATCH BASIN
- CI CURB INLET
- WV WATER VALVE
- FH FIRE HYDRANT
- FD FIRE DEPT. CONNECTION
- WM WATER METER
- IV IRRIGATION VALVE
- IB IRRIGATION BOX
- GW GAS WARNING SIGN
- PM POWER METER
- PR POWER RISER/CABINET/TRANSFORMER
- PS POWER STAND PIPE
- PV POWER VAULT
- EB ELECTRIC BOX
- ETV ELECTRIC TELEVISION RISER
- TR TELEPHONE RISER
- WTL WETLAND FLAG

- CS EXISTING CONCRETE SURFACE
- AS EXISTING ASPHALT SURFACE
- GS EXISTING GRAVEL SURFACE
- TS EXISTING TACTILE STRIP
- GS EXISTING GRAVEL SURFACE

NOTE: SYMBOLS SHOWN HEREON ARE FOR GRAPHICAL REPRESENTATION PURPOSES AND DO NOT NECESSARILY SHOW SHAPE, SIZE, ROTATION, CONDITION, TYPE, ETC. OF THE ACTUAL PHYSICAL IMPROVEMENTS THAT THEY REPRESENT. CONDITION, TYPE, ROTATION, ETC. MAY VARY AMONGST ITEMS SHOWN BY THE SAME SYMBOL.

- 1 CAUTION\* POSSIBLE UNDERGROUND POWER. NO LOCATE PAINT PROVIDED.
- 2 CAUTION\* POSSIBLE UNDERGROUND GAS. NO LOCATE PAINT PROVIDED.

THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM LOCATE PAINT MARKINGS TIED IN THE FIELD SURVEY AND AS-BUILT DRAWINGS PROVIDED BY UTILITY COMPANIES. THIS SURVEY DOES NOT SHOW ANY PAINT MARKINGS PROVIDED AFTER THE FIELD SURVEY WAS COMPLETED. AS-BUILT DRAWING INFORMATION THAT WAS NOT PROVIDED IS NOT REFLECTED ON THIS SURVEY. AS-BUILT INFORMATION, IF PROVIDED, WAS USED TO IDENTIFY UNDERGROUND PIPE SIZE AND TYPE (IF SHOWN, AND NOT MEASURED). PAINTED SIZE INFORMATION, IF PROVIDED, WAS USED TO IDENTIFY UNDERGROUND PIPE SIZE AND TYPE (IF SHOWN, AND NOT MEASURED). IF NO LOCATE PAINT MARKINGS WERE PROVIDED, AS-BUILT INFORMATION WAS USED TO HORIZONTALLY LOCATE THE UNDERGROUND UTILITIES.

THIS SURVEY MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE OF ALL SUCH UTILITIES IN THE AREA. THE UNDERGROUND UTILITIES SHOWN MAY NOT BE IN THE EXACT LOCATION AS NOTED ON THIS SURVEY, BUT ARE LOCATED AS ACCURATELY AS POSSIBLE FROM THE INFORMATION PROVIDED. MANHOLES OTHER THAN SANITARY AND STORM SEWER WERE IDENTIFIED BY MANHOLE LIDS AND MAY NOT BE LABELED CORRECTLY.

UTILITY LOCATIONS MUST BE VERIFIED BY THE STATE UTILITY NOTIFICATION CENTER IMMEDIATELY PRIOR TO ANY EXCAVATION.

UTILITY LOCATES WERE REQUESTED 04/19/2017, 04/25/2017, AND 05/15/2017 UNDER TICKET NUMBERS 17122314, 17132925, 17165231.

- FOLLOWING IS A LIST OF UTILITY PROVIDERS NOTIFIED:
- COMCAST CABLE COMM. MNGMT, LLC (866)875-9735
  - CASCADE NAT GAS-LNGWV (888)522-1130
  - COWLITZ COUNTY FUD (360)577-7546
  - FRONTIER COMMUNICATIONS NW INC (877)462-8188
  - BP/OLYMPIC PIPE LINE COMPANY (425)981-2517
  - \*CITY OF WOODLAND (360)225-7999

\* -- DENOTES ASBUILT MAPS RECEIVED

1113 STORM MANHOLE  
RM= 22.97  
IE 12' CPP(NW)= 17.37  
IE 16' CPP(SW)= 17.37  
BOTTOM= 17.37

1129 STORM MANHOLE  
RM= 23.81  
IE 12' CPP(SE)= 17.00  
IE 12' CPP(NE)= 16.85  
IE 16' CPP(ESE)= 16.49  
IE 24' CPP(SW)= 16.15  
BOTTOM= 16.30

1416 CURB INLET  
RM= 24.74  
IE 16' CPP(ESE)= 21.11  
BOTTOM= 19.44  
\*IE IS APPROXIMATE

1421 CURB INLET  
RM= 24.38  
IE 10' CPP(SW)= 21.99  
BOTTOM= 20.38  
\*IE IS APPROXIMATE

1588 CURB INLET  
RM= 24.45  
IE 12' CPP(NW)= 20.95  
BOTTOM= 19.35

1604 CURB INLET  
RM= 24.43  
IE 12' CPP(NW)= 20.73  
BOTTOM= 19.12

1631 CURB INLET  
RM= 24.24  
IE 10' CPP(SW)= 21.71  
BOTTOM= 20.24  
\*IE IS APPROXIMATE

1632 STORM MANHOLE  
RM= 24.41  
IE 12' CPP(NW)= 21.74  
IE 12' CPP(NE)= 19.91  
BOTTOM= 20.01

1657 STORM MANHOLE  
RM= 24.74  
IE 12' CPP(NW)= 17.04  
IE 12' CPP(NE)= 17.04  
IE 12' CPP(SW)= 16.94  
BOTTOM= 16.99

1691 STORM MANHOLE  
RM= 24.40  
IE 12' CPP(SW)= 17.90  
IE 12' CPP(NW)= 17.50  
IE 12' CPP(SE)= 17.15  
BOTTOM= 17.30

1911 STORM MANHOLE  
RM= 20.22  
IE 12' CPP(NE)= 16.22  
IE 24' CPP(SW)= 15.42  
IE 24' CPP(NE)= 15.22  
BOTTOM= 15.32

1912 STORM MANHOLE  
RM= 20.20  
IE 24' CPP(SE)= 5.20  
IE 24' CPP(NW)= 15.00  
BOTTOM= 15.10

1913 STORM MANHOLE  
RM= 20.02  
IE 12' CPP(SE)= 15.82  
IE 12' CPP(NW)= 15.82  
BOTTOM= 15.72

1914 STORM MANHOLE  
RM= 23.37  
IE 12' CPP(SE)= 15.57  
IE 12' CPP(SW)= 14.57  
IE 24' CPP(NW)= 14.57  
BOTTOM= 14.57

1926 STORM MANHOLE  
RM= 22.29  
IE 24' CPP(SE)= 14.49  
IE 30' CPP(NE)= 14.29  
BOTTOM= 14.23

2009 STORM MANHOLE  
RM= 24.09  
IE 12' CPP(NW)= 17.84  
IE 12' CPP(SE)= 17.74  
BOTTOM= 17.79

4435 CATCH BASIN  
RM= 17.19  
IE 8' PVC(W)= 14.41  
BOTTOM= 12.79  
\*IE IS APPROXIMATE

4436 CATCH BASIN  
RM= 17.20  
IE 8' PVC(E)= 14.30  
IE 12' PVC(SW)= 14.31  
BOTTOM= 12.42  
\*IE IS APPROXIMATE

4445 CATCH BASIN  
RM= 17.59  
IE 8' PVC(W)= 15.01  
BOTTOM= 13.47  
\*IE IS APPROXIMATE

4446 CATCH BASIN  
RM= 17.58  
IE 8' PVC(C)= 14.88  
IE 12' PVC(W)= 14.81  
BOTTOM= 13.18

1114 SANITARY MANHOLE  
RM= 23.26  
IE 12' PVC(NW)= 15.61  
IE 12' PVC(SE)= 15.46  
BOTTOM= 15.56

1115 SANITARY MANHOLE  
RM= 23.81  
IE 12' PVC(SE)= 17.00  
IE 12' PVC(NW)= 15.91  
IE 12' PVC(NW)= 15.86  
IE 12' PVC(SE)= 15.81  
BOTTOM= 15.86

1123 SANITARY MANHOLE  
RM= 24.68  
IE 12' PVC(NW)= 16.73  
IE 12' PVC(NE)= 16.58  
BOTTOM= 16.68

1692 SANITARY MANHOLE  
RM= 24.50  
IE 12' PVC(NW)= 17.25  
IE 12' PVC(SE)= 17.10  
BOTTOM= 17.20

1695 SANITARY MANHOLE  
RM= 24.65  
NO FLOW  
APPEARS CAPPED  
RM= 24.45

1696 SANITARY MANHOLE  
RM= 24.73  
IE 12' PVC(NW)= 17.58  
IE 12' PVC(NE)= 17.48  
BOTTOM= 17.53

1697 SANITARY MANHOLE  
RM= 24.63  
NO FLOW  
IE 12' PVC(NW)= 9.71  
IE 12' PVC(NE)= 9.61  
IE 12' PVC(NE)= 9.51  
BOTTOM= 9.56  
\*IE IS APPROXIMATE

1698 SANITARY MANHOLE  
RM= 24.73  
NO FLOW  
IE 12' PVC(NW)= 17.58  
IE 12' PVC(NE)= 17.48  
BOTTOM= 17.53

2008 SANITARY MANHOLE  
RM= 24.14  
NO FLOW  
IE 12' PVC(NW)= 10.21  
IE 12' PVC(NE)= 10.01  
BOTTOM= 10.14  
\*IE IS APPROXIMATE

2122 CLEANOUT  
RM= 24.43

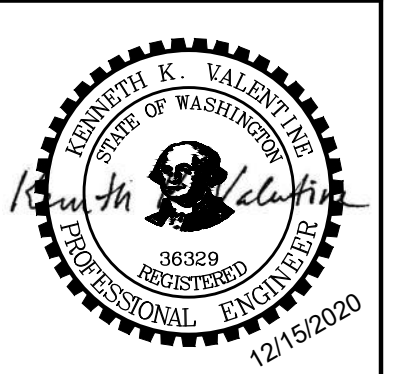
4434 SANITARY MANHOLE  
RM= 18.73  
IE 12' PVC(NE)= 7.51  
IE 12' PVC(NE)= 7.40  
BOTTOM= 7.45

4437 SANITARY MANHOLE  
RM= 17.47  
IE 12' PVC(SW)= 6.72  
IE 12' PVC(NE)= 6.67  
BOTTOM= 7.45

4448 SANITARY MANHOLE  
RM= 17.09  
IE 12' PVC(NE)= 5.59  
IE 12' PVC(SW)= 5.44  
IE 12' PVC(NW)= 5.19  
BOTTOM= 5.39

EXISTING CONDITIONS  
**ROSE WAY INDUSTRIAL PARK**  
WOODLAND, WASHINGTON

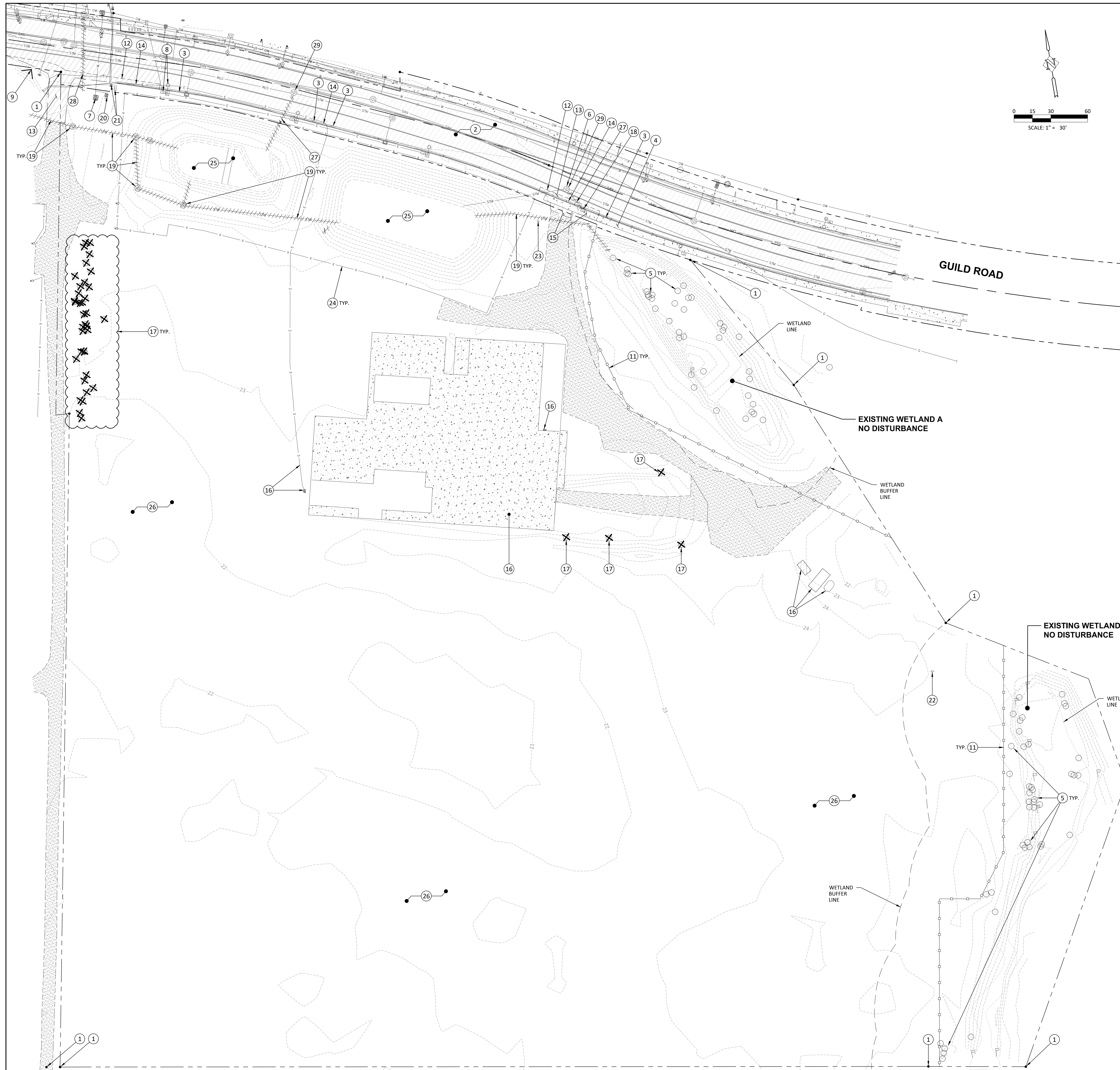
**Harper Houff Peterson Righelli Inc.**  
ENGINEERS & PLANNERS  
LANDSCAPE ARCHITECTS & SURVEYORS  
1220 Main Street, Suite 150, Vancouver, WA, 98660  
Phone: 360.570.1111 www.hhpinc.com



DESIGNED:	KKV
DRAWN:	HHPR
CHECKED:	RAV
DATE:	12/15/2020

NO.	DATE	NO.	DESCRIPTION
1			REVISED PER PORT COMMENTS

SHEET NO.  
**C1.02**  
JOB NO. PWL-03

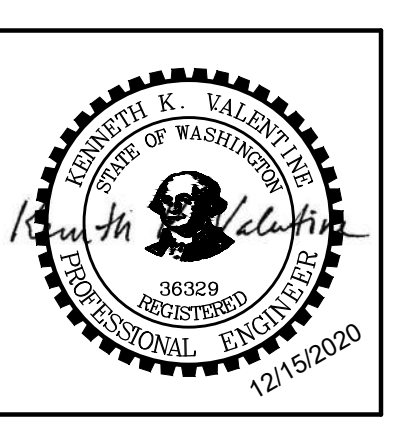


**CONSTRUCTION NOTES:**

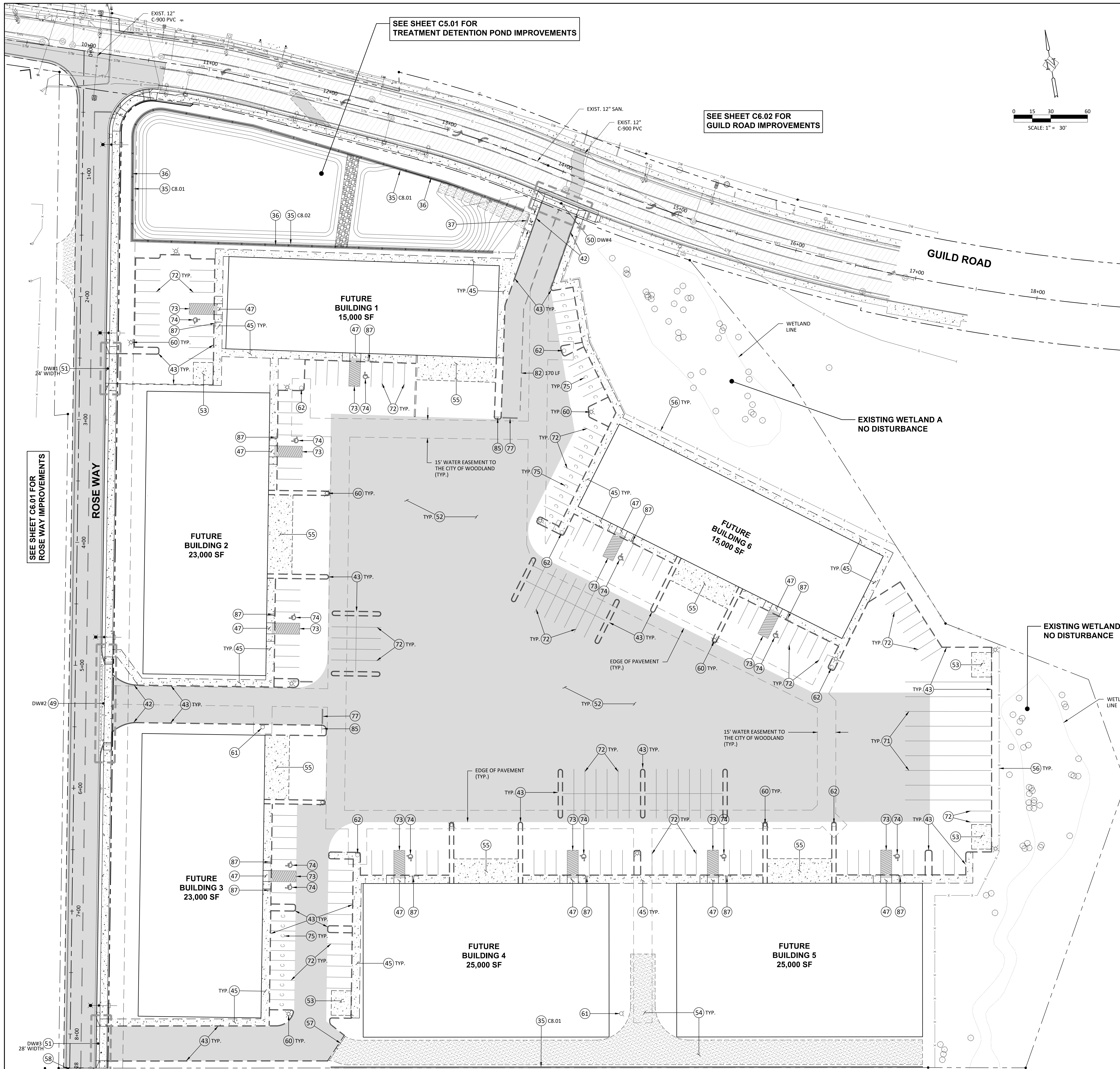
- 1 PROTECT EXISTING MONUMENT.
- 2 PROTECT EXISTING ASPHALT.
- 3 PROTECT EXISTING CURB AND GUTTER.
- 4 PROTECT EXISTING SIDEWALK.
- 5 PROTECT EXISTING TREE.
- 6 PROTECT STORM MANHOLE.
- 7 EXISTING WATER BLOW-OFF ASSEMBLY TO BE REMOVED FOR EXTENSION OF MAIN. SEE ROSE WAY PLAN AND PROFILE, SHEET C6.01 FOR ADDITIONAL INFORMATION.
- 8 PROTECT EXISTING LIGHT POLE AND PULL BOX.
- 9 PROTECT EXISTING SIGN.
- 11 INSTALL ORANGE CONSTRUCTION FENCE TO DEMARCATATE NO DISTURBANCE AREAS AS PART OF EROSION CONTROL ITEM.
- 12 SAWCUT EXISTING ASPHALT. SEE STREET IMPROVEMENT PLANS, SHEETS C6.01 AND C6.02 FOR ADDITIONAL INFORMATION.
- 13 REMOVE EXISTING ASPHALT.
- 14 REMOVE EXISTING CURB AND GUTTER.
- 15 REMOVE EXISTING ASPHALT, SIDEWALK AND CONCRETE DRIVEWAY APRON. SEE GUILD ROAD PLAN AND PROFILE, SHEET C6.02 FOR ADDITIONAL INFORMATION.
- 16 REMOVE EXISTING BUILDING FOUNDATION AND RELATED STRUCTURES ASSOCIATED WITH TAX LOT 508310-100. COORDINATE REMOVAL OF EXISTING UTILITIES WITH PUD'S. CONTRACTOR RESPONSIBLE FOR ALL REQUIRED PERMITS AND INSPECTIONS.
- 17 REMOVE EXISTING TREE, STUMP AND ROOTS AS NECESSARY FOR CONSTRUCTION. TYPICAL ALL TREES LABELED WITH AN "X".
- 18 REMOVE EXISTING CURB INLET. SEE GUILD ROAD PLAN AND PROFILE, SHEET C6.02 FOR ADDITIONAL INFORMATION.
- 19 REMOVE EXISTING MANHOLE AND/OR STORM PIPE. SEE STORM DRAINAGE PLAN, SHEET C4.01 FOR ADDITIONAL INFORMATION.
- 20 REMOVE EXISTING WATER METER. COORDINATE WITH CITY. SEE ROSE WAY PLAN AND PROFILE, SHEET C6.01 FOR ADDITIONAL INFORMATION.
- 21 REMOVE/RELOCATE EXISTING JUNCTION BOX. COORDINATE WITH EXISTING UTILITIES PUD'S. SEE PRIVATE UTILITY PLAN, SHEET C4.04 FOR ADDITIONAL INFORMATION.
- 22 REMOVE EXISTING UTILITY POLE. COORDINATE REMOVAL WITH EXISTING UTILITIES PUD'S.
- 23 REMOVE EXISTING SIGN.
- 24 REMOVE AND REPLACE EXISTING CHAIN LINK FENCE. SEE TREATMENT DETENTION POND PLAN, SHEET C5.01.
- 25 REGRADE POND PER TREATMENT DETENTION POND PLAN, SHEET C5.01.
- 26 STRIP AND SAVE TOPSOIL PER SECTION 5.1 OF THE GEOTECHNICAL REPORT PREPARED BY COLUMBIA WEST DATED JUNE 15, 2017. EXCESS MATERIAL TO BE DISPOSED OF OFF SITE AT A LOCATION AS REQUIRED BY THE PORT.
- 27 REMOVE EXISTING PIPE TO MANHOLE AS NECESSARY FOR CONSTRUCTION AND/OR ABANDON PER CITY STANDARDS. SEE SHEETS C4.01, C5.01 AND C6.02 FOR ADDITIONAL INFORMATION.
- 28 REMOVE EXISTING PIPE TO MANHOLE AS NECESSARY FOR CONSTRUCTION AND/OR ABANDON PER CITY STANDARDS. SEE ROSE WAY PLAN AND PROFILE, SHEET C6.01 FOR ADDITIONAL INFORMATION.
- 29 PLUG ALL ABANDONED PIPES AT THE ENTRANCE TO MANHOLE. IF PIPE IS REMOVED, PLUG MANHOLE OPENING BY POURING CONCRETE OUTSIDE THE OPENING AND GROUT INTERIOR OF MANHOLE.

**SITE DEMOLITION PLAN**  
**ROSE WAY INDUSTRIAL PARK**  
**WOODLAND, WASHINGTON**

**Harper Houf Peterson Righellis Inc.**  
 ENGINEERS + PLANNERS  
 LANDSCAPE ARCHITECTS + SURVEYORS  
 1220 Main Street, Suite 150, Vancouver, WA 98660  
 phone: 360.750.1111 www.hhpr.com fax: 360.750.1141



DESIGNED:	KKV	DRAWN:	HHPR	CHECKED:	RAV	DATE:	12/15/2020
REVISIONS	NO.	DATE	DESCRIPTION				
1			REVISED PER PORT COMMENTS				
SHEET NO.							
<b>C1.03</b>							
JOB NO. PWL-03							



**CONSTRUCTION NOTES:**

- 35 CONSTRUCT MODULAR RETAINING WALL PER DETAILS, SHEETS C8.01 - C8.03.
- 36 INSTALL TYPE 3 CHAIN LINK FENCE WITH BLACK VINYL COATING PER WSDOT STANDARD PLAN L-20.10-03, SHEET C8.03.
- 37 INSTALL 14-FOOT WIDE DOUBLE GATE WITH BLACK VINYL COATING PER WSDOT STANDARD PLAN L-30.10-02, SHEET C8.03.
- 42 CONSTRUCT TYPE E-1 CONCRETE CURB PER DETAIL T-01, SHEET C7.06.
- 43 CONSTRUCT TYPE E-1 CONCRETE CURB PER DETAIL T-01, SHEET C7.06. (NOT IN THIS CONTRACT)
- 45 CONSTRUCT 4" CONCRETE SIDEWALK PER DETAIL T-07, SHEET C7.06. (NOT IN THIS CONTRACT)
- 47 CONSTRUCT PARALLEL ADA RAMP PER CITY SPECIFICATIONS. (NOT IN THIS CONTRACT)
- 49 CONSTRUCT 30' DRIVEWAY PER DETAIL T-06, SHEET C7.06. SEE SHEET C3.02 FOR DETAILED GRADES.
- 50 CONSTRUCT 30' DRIVEWAY PER DETAIL T-04, SHEET C7.06. SEE SHEET C3.02 FOR DETAILED GRADES.
- 51 CONSTRUCT DRIVEWAY PER DETAIL T-03, SHEET C7.06. SEE SHEET C3.02 FOR DETAILED GRADES.
- 52 CONSTRUCT PAVEMENT SURFACE PER HMA PAVEMENT SECTION, SHEET C7.01.
- 53 CONSTRUCT CONCRETE SURFACE FOR TRASH / RECYCLE ENCLOSURE PER CONCRETE PAD SECTION, SHEET C7.01. (NOT IN THIS CONTRACT)
- 54 CONSTRUCT GRAVEL SURFACE PER GRAVEL ACCESS SECTION, SHEET C7.01.
- 55 CONSTRUCT CONCRETE TRUCK DOCKING PAD. (NOT IN THIS CONTRACT)
- 56 INSTALL CL-6 FENCE PER DETAIL, SHEET C8.01. (NOT IN THIS CONTRACT)
- 57 INSTALL VEHICULAR ENTRANCE GATE FOR FIRE DEPARTMENT ACCESS ONLY (NORMALLY CLOSED). (NOT IN THIS CONTRACT)
- 58 INSTALL TYPE 3 BARRICADE PER DETAIL K-80.20-00, SHEET C7.07.
- 60 SITE LIGHT. SEE SHEET C4.04 FOR ADDITIONAL INFORMATION.
- 61 FIRE HYDRANT LOCATION. SEE SHEET C4.03 FOR ADDITIONAL INFORMATION.
- 62 FIRE HYDRANT LOCATION. SEE SHEET C4.03 FOR ADDITIONAL INFORMATION. (NOT IN THIS CONTRACT)
- 63 PAINT 6" WHITE PARKING LOT STRIPE. (NOT IN THIS CONTRACT)
- 72 PAINT 4" WHITE PARKING LOT STRIPE. (NOT IN THIS CONTRACT)
- 73 PAINT CROSS STRIPING PER ACCESSIBLE STALL CROSS STRIPING DETAIL, SHEET C7.01. (NOT IN THIS CONTRACT)
- 74 PAINT ACCESSIBLE PARKING SYMBOL PER DETAIL, SHEET C7.01. (NOT IN THIS CONTRACT)
- 75 PAINT WHITE "C" FOR COMPACT STALLS WHERE SHOWN. (NOT IN THIS CONTRACT)
- 77 PAINT STOP BAR PER DETAIL, SHEET C7.01. (NOT IN THIS CONTRACT)
- 82 PAINT 4" WHITE WIDE DOTTED EXTENSION LINE PER DETAIL M-20.10-03, SHEET C7.07. SEE PLAN FOR LENGTH. (NOT IN THIS CONTRACT)
- 85 INSTALL "STOP" SIGN PER DETAILS, SHEET C7.01. (NOT IN THIS CONTRACT)
- 87 INSTALL ADA ACCESSIBLE SIGN PER DETAILS, SHEET C7.01. (NOT IN THIS CONTRACT)

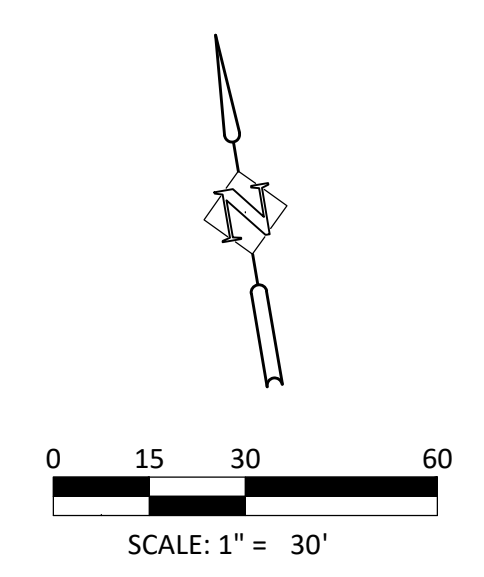
**LEGEND:**

- CURB
- FUTURE CURB (NOT IN THIS CONTRACT)
- ASPHALT PAVEMENT IN THIS CONTRACT (SEE SHEET C7.01 FOR TYPICAL SECTION)

**GENERAL NOTES:**

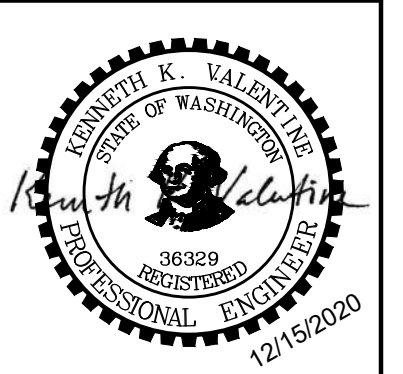
1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CITY OF WOODLAND MUNICIPAL CODE AND THE LAND USE CONDITIONS OF APPROVAL. IT SHALL BE THE SOLE RESPONSIBILITY OF THE APPLICANT AND THE PROFESSIONAL CIVIL ENGINEER TO CORRECT ANY ERROR, OMISSION, OR VARIATION FROM THE ABOVE REQUIREMENTS FOUND IN THESE PLANS.
2. APPROVAL OF ROADWAYS, GRADING, EROSION CONTROL AND DRAINAGE PLAN BY CITY OF WOODLAND DOES NOT CONSTITUTE AN APPROVAL OF ANY OTHER CONSTRUCTION (E.G., DOMESTIC WATER CONVEYANCE, SEWER CONVEYANCE, GAS, ELECTRICAL, ETC.).
3. BEFORE ANY CONSTRUCTION OR DEVELOPMENT ACTIVITY, A PRECONSTRUCTION MEETING MUST BE HELD BETWEEN THE CITY OF WOODLAND, THE APPLICANT, AND THE APPLICANT'S CONSULTING ENGINEER AND CONSTRUCTION REPRESENTATIVES.
4. A COPY OF THESE APPROVED PLANS MUST BE ON THE JOB SITE WHENEVER CONSTRUCTION IS IN PROGRESS.
5. ALL UTILITY TRENCHES SHALL BE BACKFILLED AND COMPACTED TO 95 PERCENT MAXIMUM DENSITY AS DETERMINED BY AASHTO T-99, WITHIN THE ROADWAY PRISM.
6. ALL ROADWAY SUBGRADE WITHIN THE ROADWAY PRISM SHALL BE BACKFILLED AND COMPACTED TO 95 PERCENT MAXIMUM DENSITY AS DETERMINED BY AASHTO T-99 (WSDOT 2\_06.3).
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE SAFEGUARDS, SAFETY DEVICES, PROTECTIVE EQUIPMENT, FLAGGERS, AND ANY OTHER NEEDED ACTIONS TO PROTECT THE LIFE, HEALTH, AND SAFETY OF THE PUBLIC, AND TO PROTECT PROPERTY IN CONNECTION WITH THE PERFORMANCE OF WORK COVERED BY THE CONTRACTOR. ANY WORK WITHIN THE TRAVELED RIGHT-OF-WAY THAT MAY INTERRUPT NORMAL TRAFFIC FLOW SHALL REQUIRE AT LEAST ONE FLAGGER FOR EACH LANE OF TRAFFIC AFFECTED. SECTION 1-07.23, "TRAFFIC CONTROL," OF THE WSDOT STANDARD SPECIFICATIONS SHALL APPLY IN ITS ENTIRETY.
8. IF ANY CULTURAL RESOURCES AND/OR HUMAN REMAINS ARE DISCOVERED IN THE COURSE OF UNDERTAKING THE DEVELOPMENT ACTIVITY, THE DEPARTMENT OF ARCHAEOLOGY AND HISTORIC PRESERVATION IN OLYMPIA AND THE CITY OF WOODLAND SHALL BE NOTIFIED. FAILURE TO COMPLY WITH THESE STATE REQUIREMENTS MAY CONSTITUTE A CLASS C FELONY, SUBJECT TO IMPRISONMENT AND/OR FINES.
9. WETLAND AND HABITAT: NO CLEARING OR DEVELOPMENT SHALL OCCUR OUTSIDE THE AREA SHOWN ON THE FACE OF THIS PLAN. NO CONSTRUCTION ACTIVITIES OR EQUIPMENT SHALL TRESPASS ON TO THE WETLAND AREAS SHOWN WITHIN THIS PLANS.
10. ALL DISTURBED AREAS OUTSIDE DEVELOPED AREAS SHALL BE SEEDED WITH NATIVE GRASSES. INCIDENTAL TO LANDSCAPE BID ITEM.

SEE SHEETS C4.01 - C4.04 FOR UTILITY IMPROVEMENTS

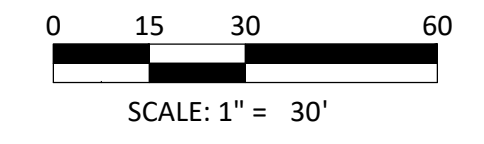
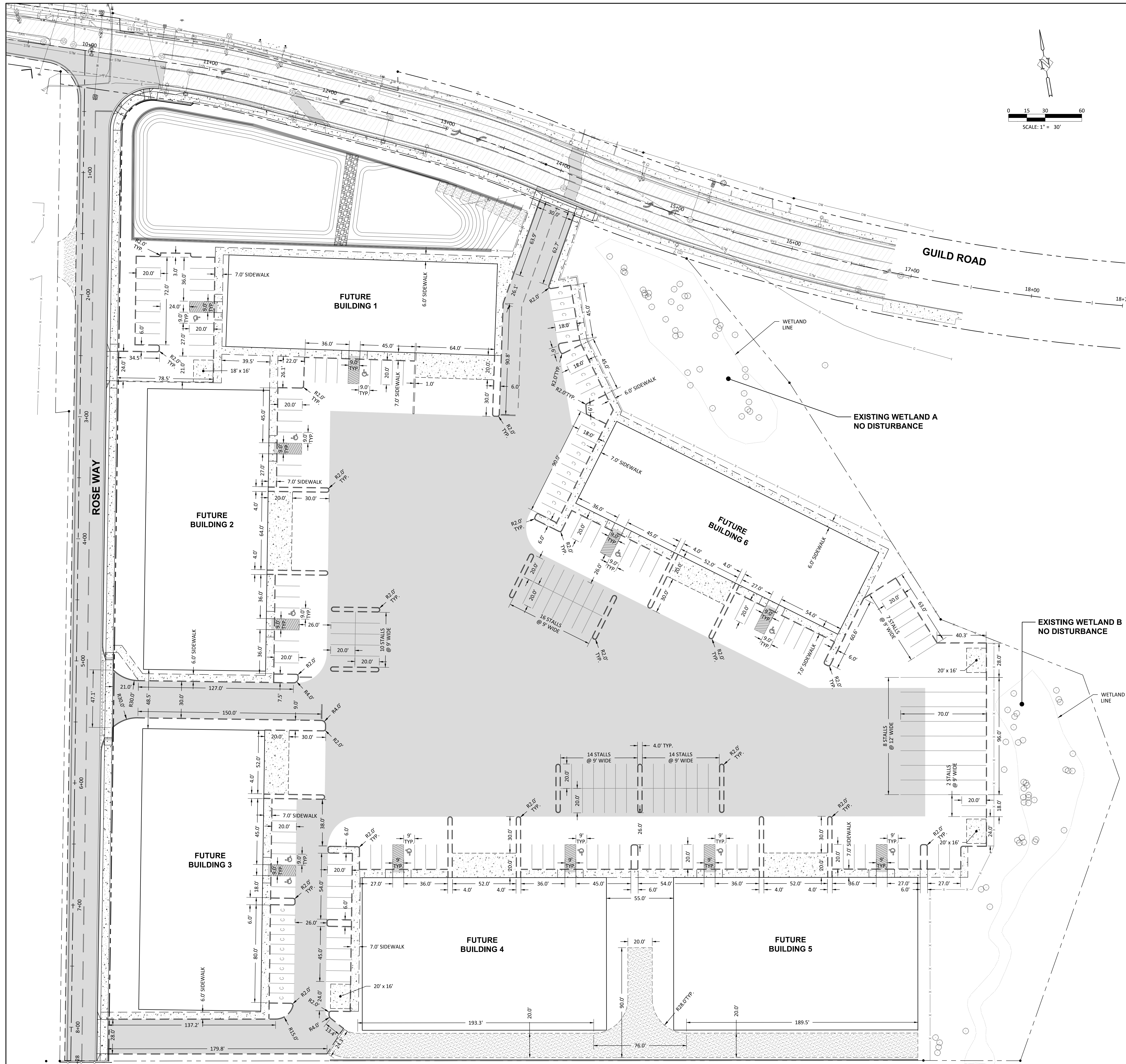


**SITE PLAN**  
**ROSE WAY INDUSTRIAL PARK**  
 WOODLAND, WASHINGTON

**Harper Houf Peterson Righellis Inc.**  
 ENGINEERS & PLANNERS  
 LANDSCAPE ARCHITECTS & SURVEYORS  
 1320 Main Street, Suite 150, Vancouver, WA 98660  
 Phone: 360.570.1111 www.hhpri.com Fax: 360.561.1411






DESIGNED:	KKV	DRAWN:	HHPR	CHECKED:	RAV	DATE:	12/15/2020
REVISION:	NO.	DATE	DESCRIPTION				
1							
SHEET NO. <b>C2.01</b>							
JOB NO. PWL-03							



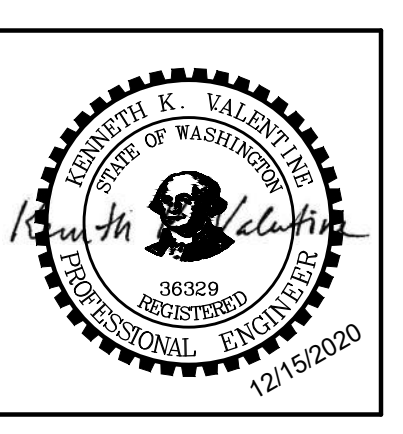
**PROPOSED PARKING**  
 COMPACT STALLS.....30  
 REGULAR STALLS.....165  
 ADA STALLS.....12  
 SEMI STALLS.....8  
 PARKING STALLS.....215

**LEGEND**

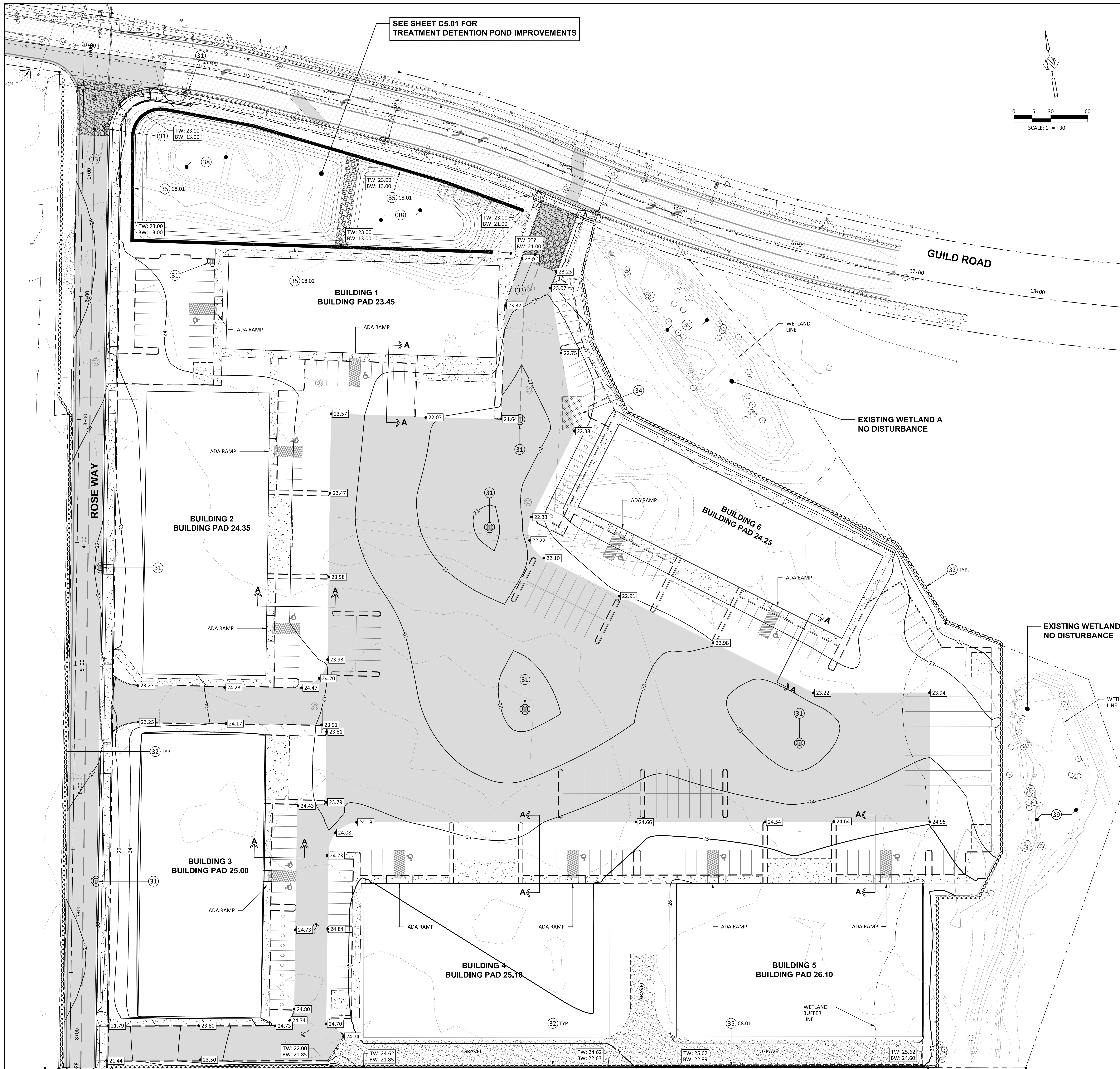
-  COMPACT PARKING STALL
-  ADA PARKING STALL
-  ADA LOADING AREA

**SITE DIMENSION PLAN**  
**ROSE WAY INDUSTRIAL PARK**  
 WOODLAND, WASHINGTON

**Harper Houf Peterson Righellis Inc.**  
 ENGINEERS + PLANNERS  
 LANDSCAPE ARCHITECTS + SURVEYORS  
 1220 Main Street, Suite 150, Vancouver, WA 98660  
 phone: 360.750.1111 www.hhpr.com fax: 360.750.1141



DESIGNED:	KKV	DRAWN:	HHPR	CHECKED:	RAV	DATE:	12/15/2020
1	REVISED PER PORT COMMENTS						
R E V I S I O N S							
SHEET NO. <b>C2.02</b>							
JOB NO. PWL-03							

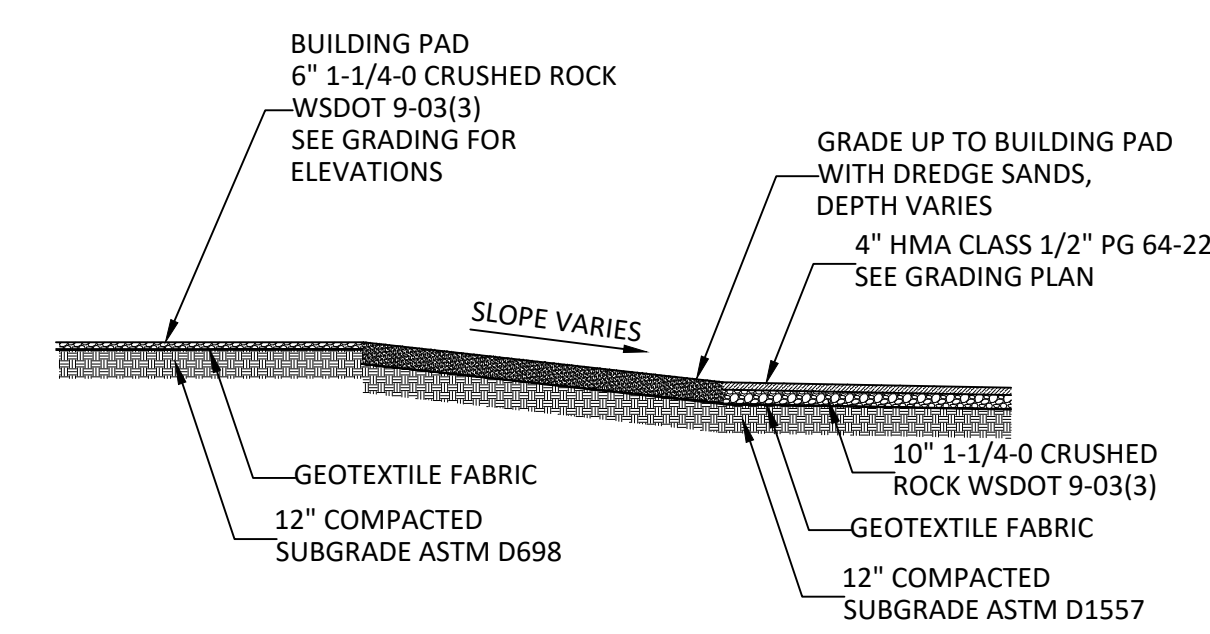
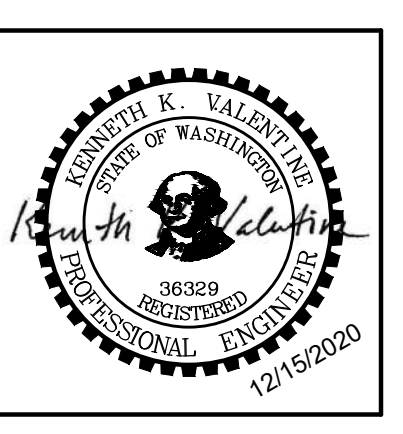


**CONSTRUCTION NOTES:**

- (31) INSTALL INLET PROTECTION PER DETAILS, SHEET C7.02.
- (32) INSTALL EROSION CONTROL SILT FENCE PER DETAIL E-20, SHEET C7.02.
- (33) INSTALL STABILIZED CONSTRUCTION ENTRANCE PER DETAIL E-05, SHEET C7.02.
- (34) INSTALL CONCRETE TRUCK WASHOUT BASIN PER DETAIL, SHEET C7.02. LOCATION SHOWN IS FOR ILLUSTRATION PURPOSES ONLY. CONTRACTOR SHALL DETERMINE ACTUAL LOCATION IN THE FIELD.
- (35) CONSTRUCT MODULAR RETAINING WALL PER DETAILS, SHEETS C8.01 - C8.03.
- (38) CONTRACTOR TO PROTECT BIO RETENTION AREA DURING CONSTRUCTION.
- (39) CONTRACTOR TO PROTECT WETLANDS DURING CONSTRUCTION.

**GRADING AND EROSION CONTROL PLAN**  
**ROSE WAY INDUSTRIAL PARK**  
 WOODLAND, WASHINGTON

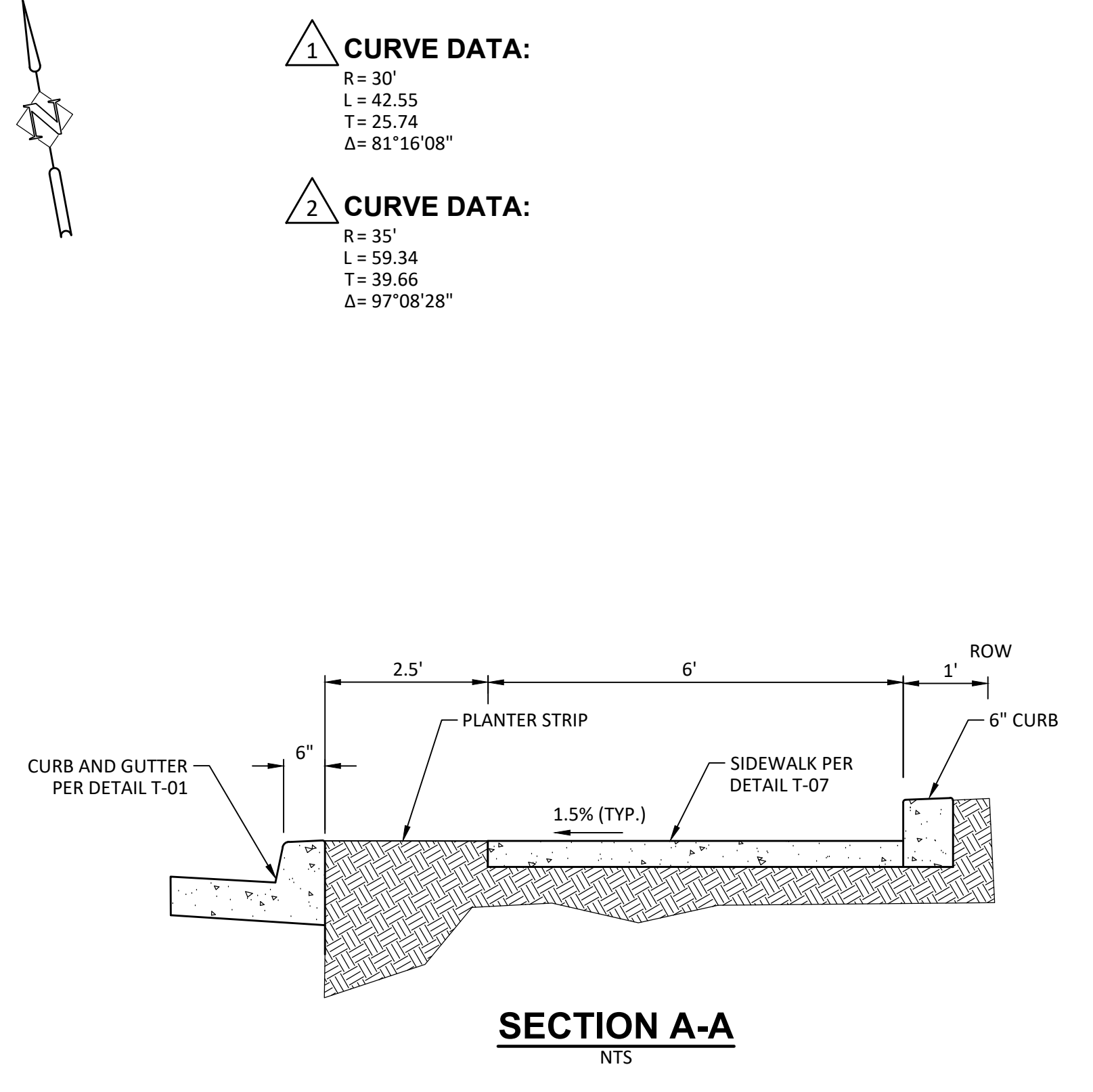
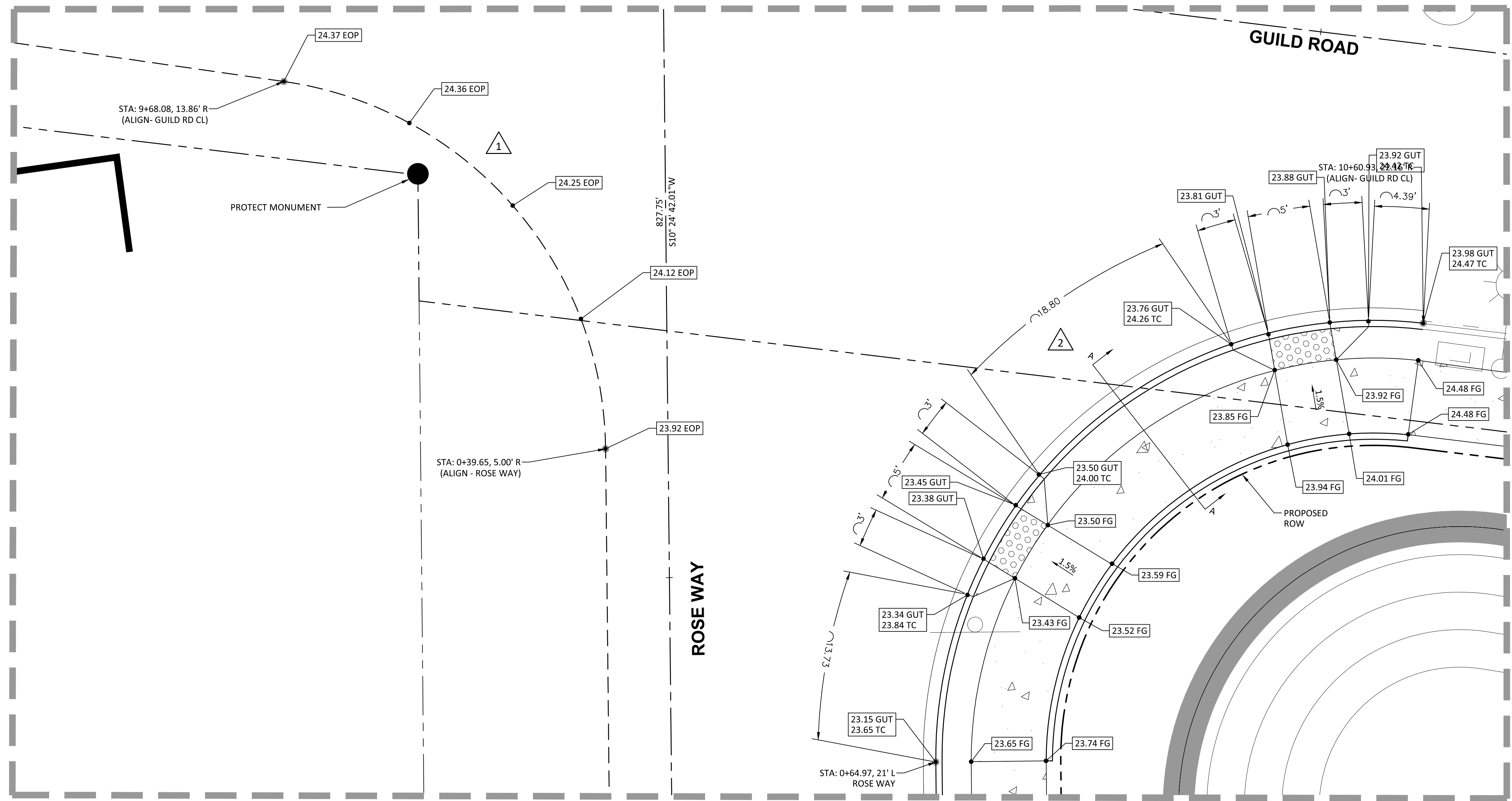
**Harper Houf Peterson Righellis Inc.**  
 ENGINEERS & PLANNERS  
 LANDSCAPE ARCHITECTS & SURVEYORS  
 1220 Main Street, Suite 150, Vancouver, WA, 98660  
 phone: 360.570.1131 www.hhpr.com fax: 360.561.1411



**TYPICAL GRADING SECTION A-A**  
NTS

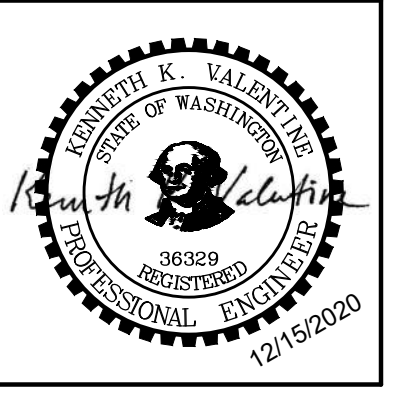
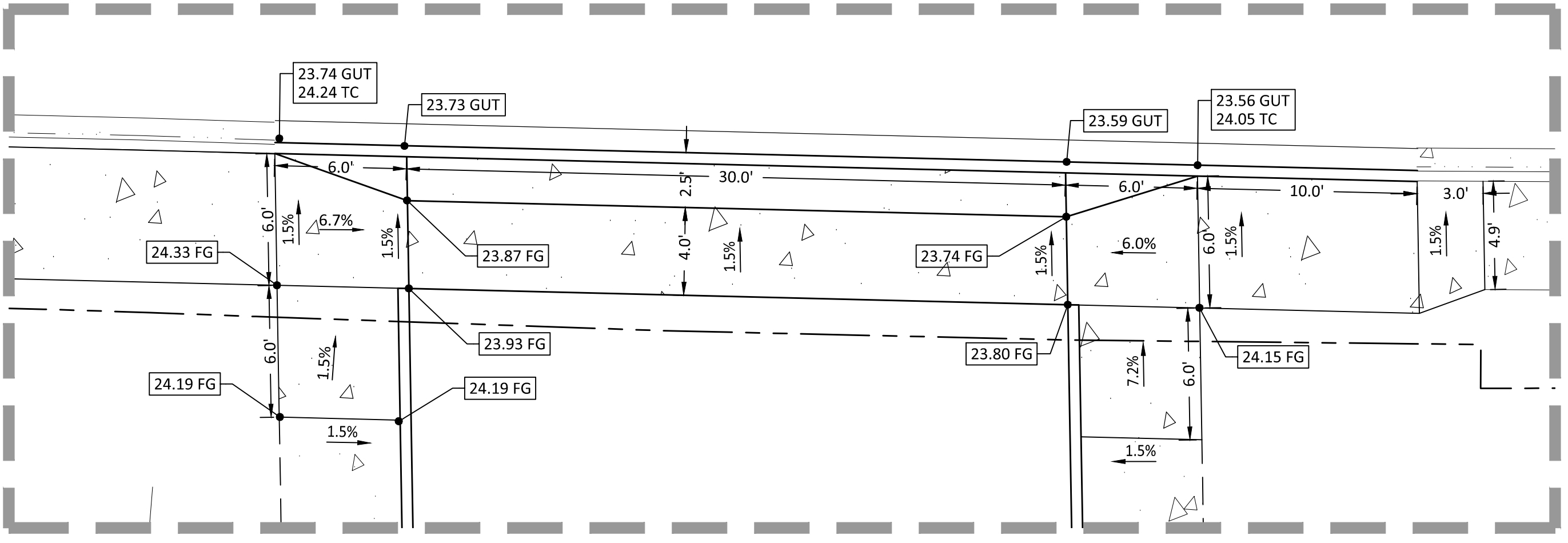
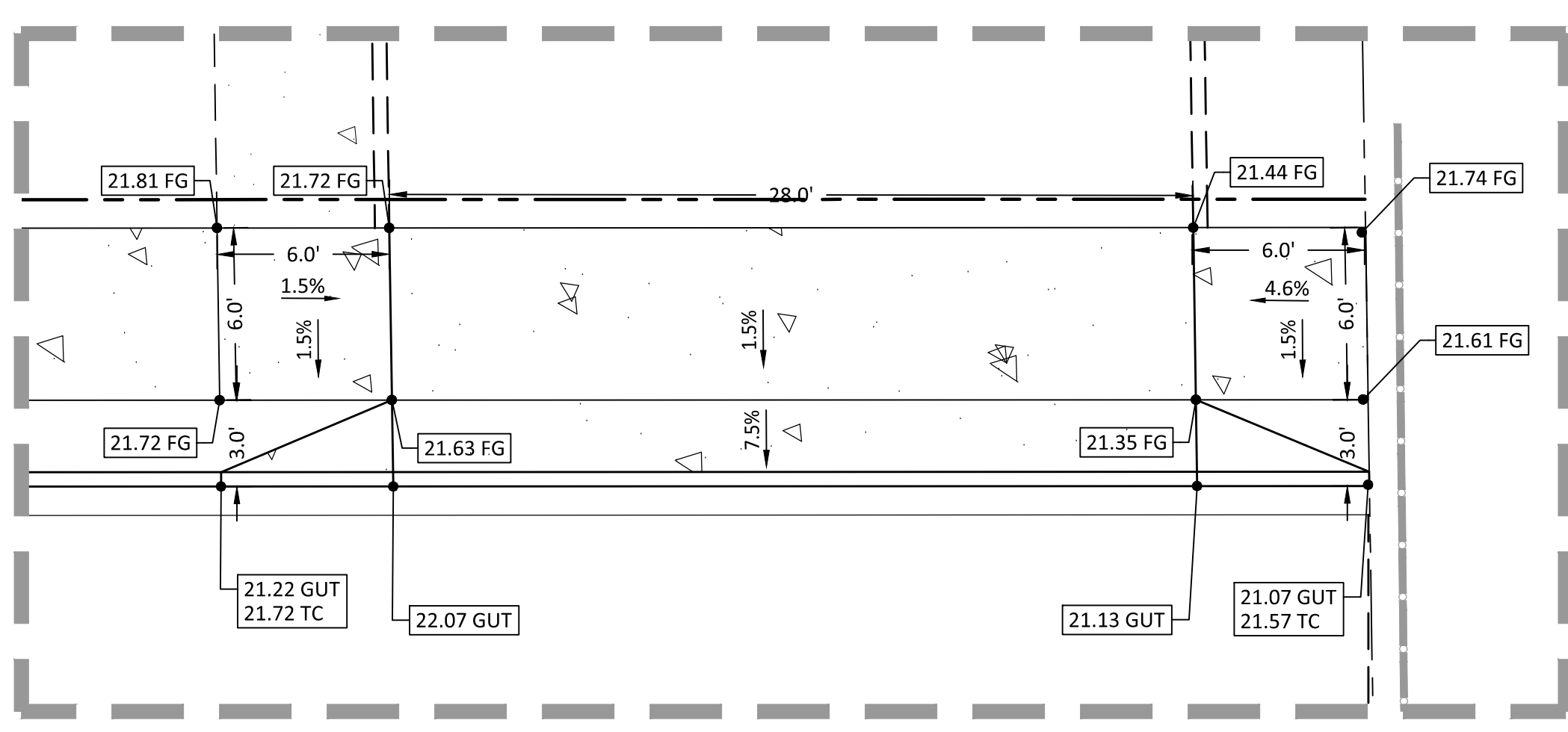
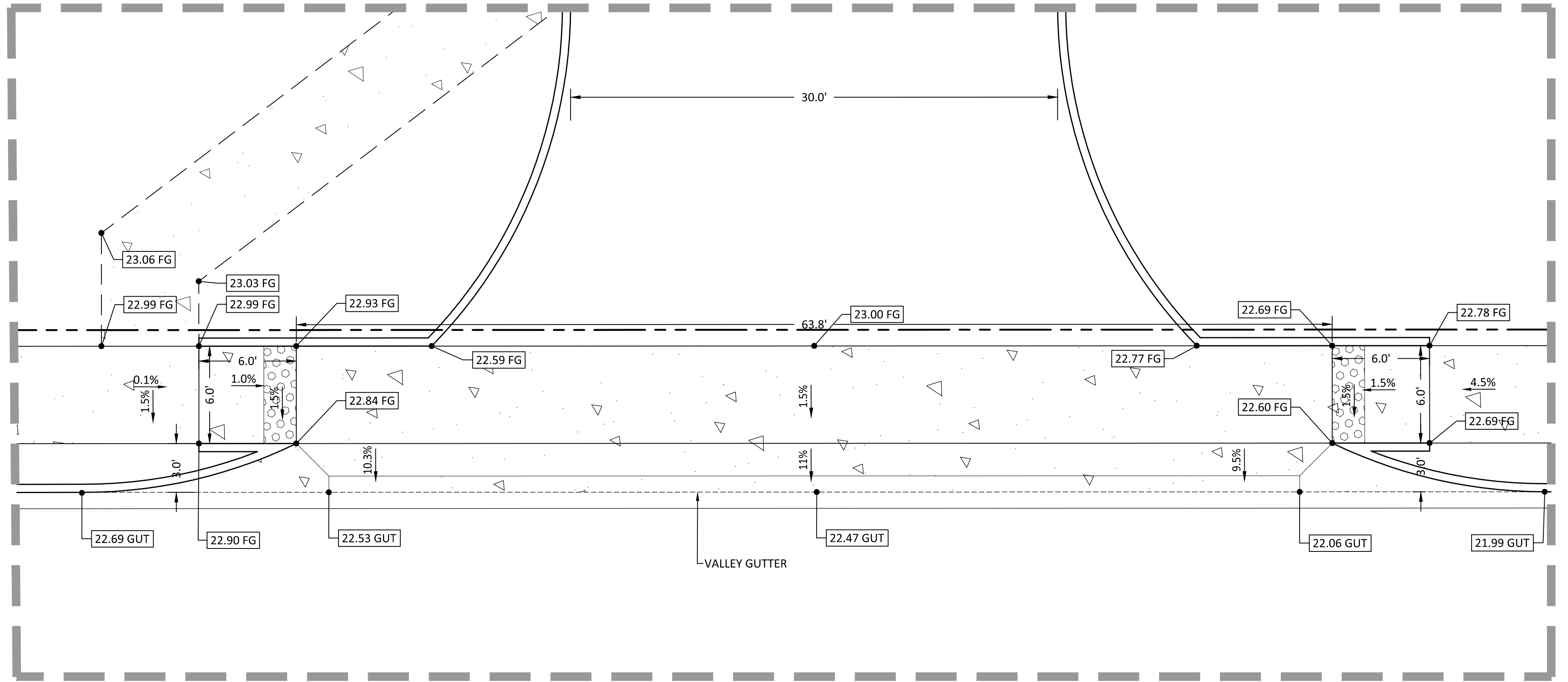
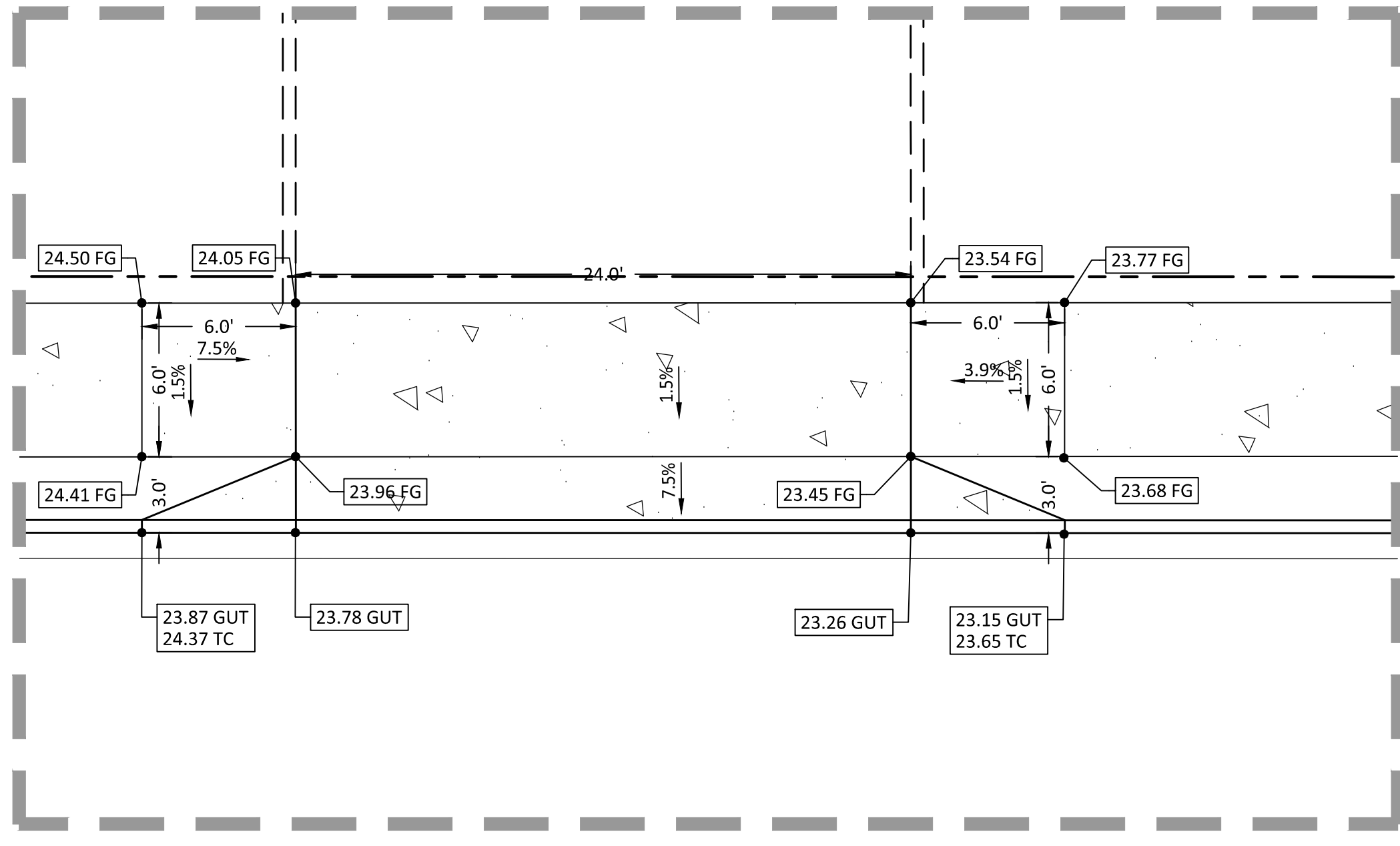
**SEE SHEET C3.02 FOR DRIVEWAY APPROACHES AND RAMP ENLARGEMENTS**

DESIGNED:	KRV	DRAWN:	HHPR	CHECKED:	RAV	DATE:	12/15/2020
REVISIONS	NO.	DATE	DESCRIPTION				
1			REVISED PER REPORT COMMENTS				
SHEET NO.							<b>C3.01</b>
JOB NO.							PWL-03



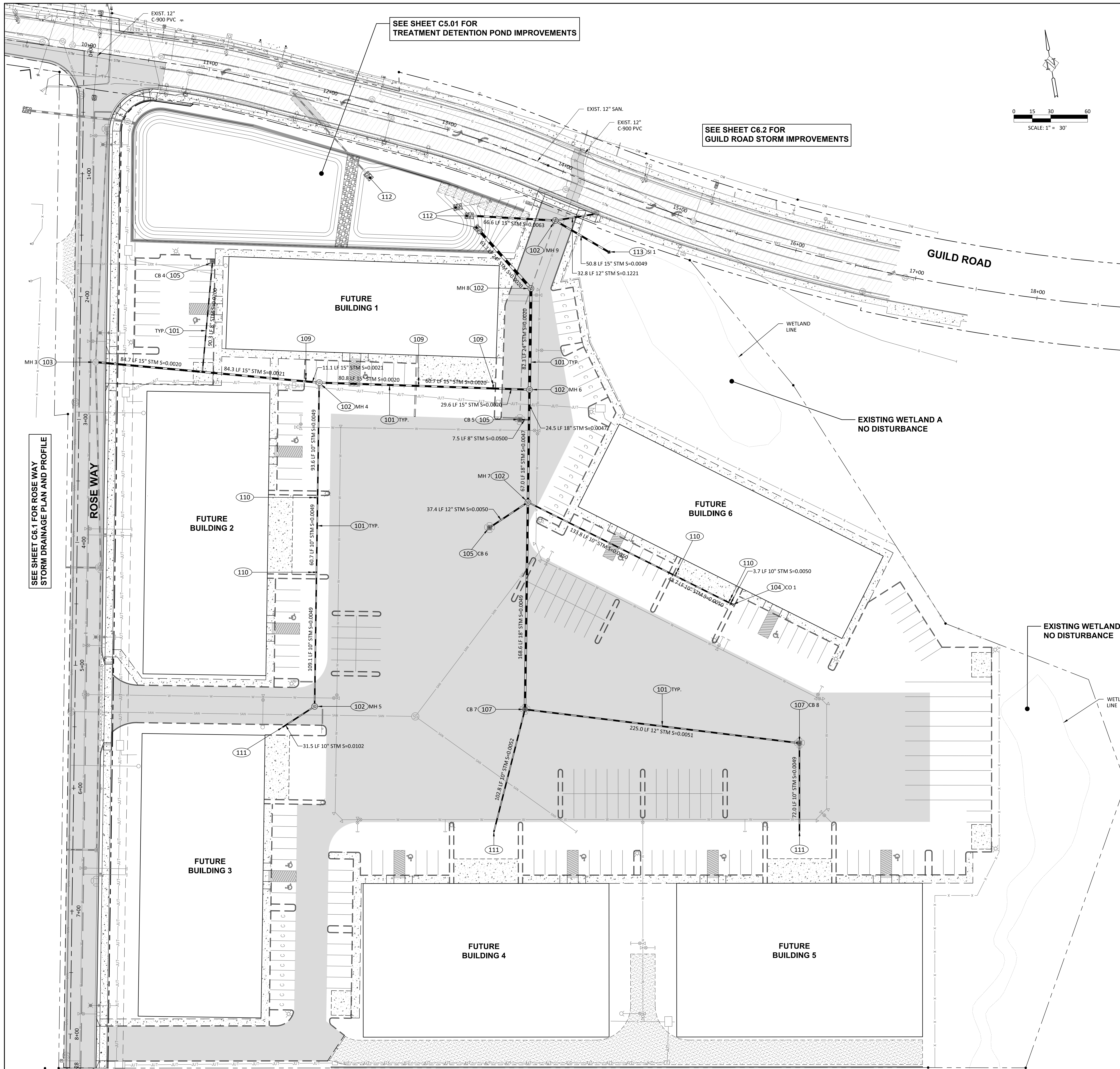
**EDGE OF PAVEMENT**  
 PC: 0+39.65, 5' (ROSE WAY)

**ADA RAMP**  
 PC: 0+64.97, 21.0' L (ROSE WAY)  
 SCALE: 1"=5'



DESIGNED:	KKV	DATE:	12/15/2020
DRAWN:	HHPR		
CHECKED:	RAV		
REVISIONS			
NO.	DESCRIPTION		
1	REVISED PER PORT COMMENTS		
SHEET NO.	<b>C3.02</b>		
JOB NO.	PWL-03		





**CONSTRUCTION NOTES:**

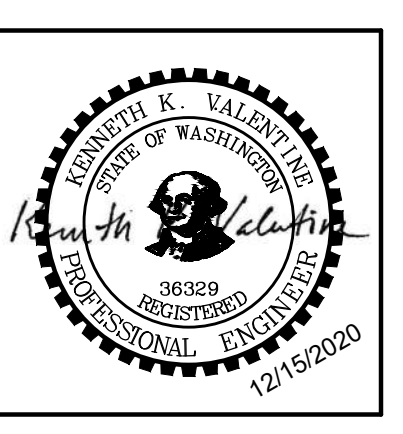
- 101 INSTALL STORM PIPE PER BEDDING AND BACKFILL DETAILS, SHEET C7.03. SEE PLAN AND/OR ROSE WAY PROFILE, SHEET C6.01 FOR SIZE, LENGTH AND SLOPE.
- 102 INSTALL STORM MANHOLE PER DETAIL D-10, SHEET C7.03. SEE TABLE FOR RIM AND INVERT ELEVATIONS.
- 103 INSTALL STORM MANHOLE PER DETAIL D-10, SHEET C7.03. SEE ROSE WAY PROFILE, SHEET C6.01 FOR RIM AND INVERT ELEVATIONS.
- 104 INSTALL STORM CLEANOUT PER DETAIL D-13, SHEET C7.03. SEE TABLE FOR RIM AND INVERT ELEVATION.
- 105 INSTALL STD. CATCH BASIN PER DETAIL D-02, SHEET C7.03. SEE TABLE FOR RIM AND INVERT ELEVATION.
- 107 INSTALL G-2 CATCH BASIN PER DETAIL D-05, SHEET C7.03. SEE TABLE FOR RIM AND INVERT ELEVATIONS.
- 109 INSTALL 15" x 6" WYE, 6" CAP AND LATERAL MARKER.
- 110 INSTALL 10" x 6" WYE, 6" CAP AND LATERAL MARKER.
- 111 INSTALL 10" CAP AND LATERAL MARKER.
- 112 INSTALL STORM OUTFALL WITH 2 CYD CLASS 100 RIP-RAP.
- 113 INSTALL SLOPED INLET PER DETAIL D-06, SHEET C7.03. SEE TABLE FOR RIM AND INVERT ELEVATION.

STORM DRAINAGE DATA				
NUMBER	DESCRIPTION	RIM ELEV.	INVERT ELEV.	PIPE LENGTH/SIZE/SLOPE
SI-1	SLOPED INLET	17.78	16.00 OUT (NW)	50.75/15"/S=0.0049
STM CB 4	STANDARD CATCH BASIN	23.25	19.94 OUT (S)	90.31/8"/S=0.0200
STM CB 5	STANDARD CATCH BASIN	21.42	18.42 OUT (E)	7.52/8"/S=0.0500
STM CB 6	STANDARD CATCH BASIN	20.56	18.12 OUT (NE)	37.42/12"/S=0.0050
STM CB 7	STANDARD CATCH BASIN	21.51	18.75 IN (E) 18.75 OUT (N) 18.75 IN (SW)	224.96/12"/S=0.0051 168.59/18"/S=0.0049 102.79/10"/S=0.0052
STM CB 8	STANDARD CATCH BASIN	22.09	19.89 IN (S) 19.89 OUT (W)	72.00/10"/S=0.0049 224.96/12"/S=0.0051
STM CO 1	STORM CLEANOUT	24.05	18.86 OUT (NW)	3.74/10"/S=0.0050
STM MH 4	48" STORM MANHOLE	23.72	17.64 IN (W) 17.64 OUT (E) 17.84 IN (S)	11.13/15"/S=0.0021 80.81/15"/S=0.0020 93.58/10"/S=0.0049
STM MH 5	48" STORM MANHOLE	24.14	19.12 IN (SW) 19.12 OUT (N)	31.47/10"/S=0.0102 109.14/10"/S=0.0049
STM MH 6	48" STORM MANHOLE	21.91	17.30 IN (W) 17.30 OUT (N) 17.50 IN (S)	29.63/15"/S=0.0020 82.31/24"/S=0.0020 24.50/18"/S=0.0047
STM MH 7	48" STORM MANHOLE	22.17	17.93 IN (S) 17.93 OUT (N) 17.93 IN (SE) 17.93 IN (SW)	168.59/18"/S=0.0049 67.05/18"/S=0.0047 133.76/10"/S=0.0050 37.42/12"/S=0.0050
STM MH 8	48" STORM MANHOLE	23.31	17.14 IN (S) 17.11 OUT (NW)	82.31/24"/S=0.0020 61.15/24"/S=0.0020
STM MH 9	48" MANHOLE	23.65	15.55 OUT (W) 16.00 IN (E) 15.75 IN (SE)	66.56/15"/S=0.0063 32.76/12"/S=0.1221 50.75/15"/S=0.0049

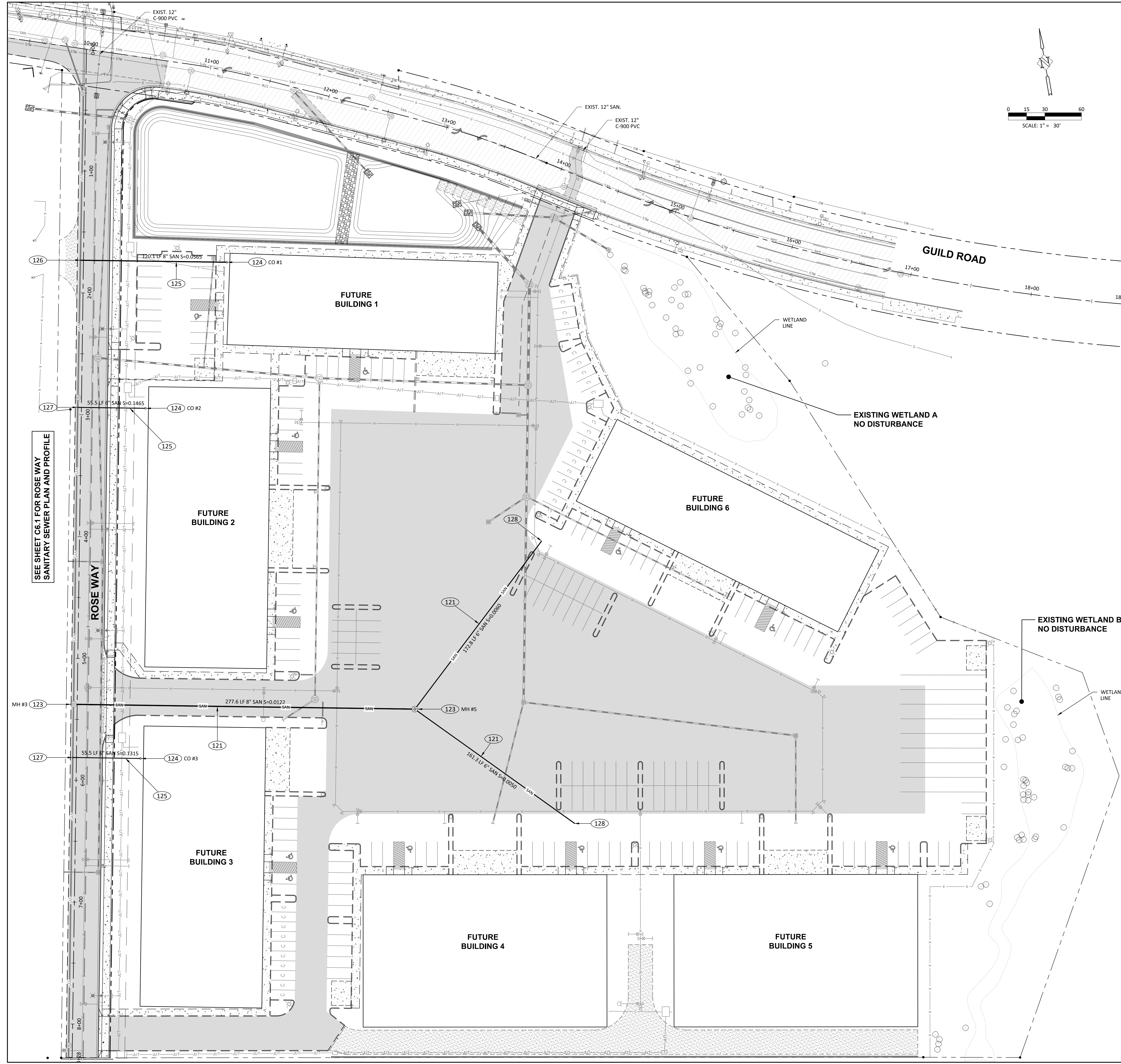
NOTE: SEE SHEET C6.01 FOR MH#3

**STORM DRAINAGE PLAN**  
**ROSE WAY INDUSTRIAL PARK**  
 WOODLAND, WASHINGTON

**Harper Houf Peterson**  
**Righellis Inc.**  
 ENGINEERS & PLANNERS  
 LANDSCAPE ARCHITECTS & SURVEYORS  
 1230 Main Street, Suite 150, Vancouver, WA, 98660  
 phone: 360.570.1111 www.hhp.com fax: 360.561.1411



DESIGNED:	KKV	DRAWN:	HHPR	CHECKED:	RAV	DATE:	12/15/2020
REVISIONS	NO.	DATE	DESCRIPTION				
1		03/20/2021	REVISED PER PORT COMMENTS				
SHEET NO.				<b>C4.01</b>			
JOB NO.				PWL-03			



- CONSTRUCTION NOTES:**
- 121 INSTALL SANITARY SEWER PIPE PER BEDDING AND BACKFILL DETAILS, SHEET C7.04. SEE PLAN AND/OR ROSE WAY PROFILE, SHEET C6.01 FOR SIZE, LENGTH AND SLOPE.
  - 123 INSTALL STD. SANITARY SEWER MANHOLE PER DETAIL S-07, SHEET C7.04. SEE TABLE AND/OR ROSE WAY PROFILE, SHEET C6.01 FOR RIM AND INVERT ELEVATIONS.
  - 124 INSTALL STD. SANITARY SEWER CLEANOUT PER DETAIL S-16, SHEET C7.04. SEE TABLE FOR RIM AND INVERT ELEVATIONS.
  - 125 INSTALL SANITARY SEWER SERVICE PER DETAIL S-04, SHEET C7.04. SEE PLAN FOR SIZE, LENGTH AND SLOPE.
  - 126 INSTALL 12" x 8" SANITARY SEWER TEE. SEE ROSE WAY PROFILE, SHEET C6.01 FOR INVERT ELEVATIONS.
  - 127 INSTALL 12" x 6" SANITARY SEWER TEE. SEE ROSE WAY PROFILE, SHEET C6.01 FOR INVERT ELEVATIONS.
  - 128 INSTALL PVC END CAP AND LATERAL MARKER.

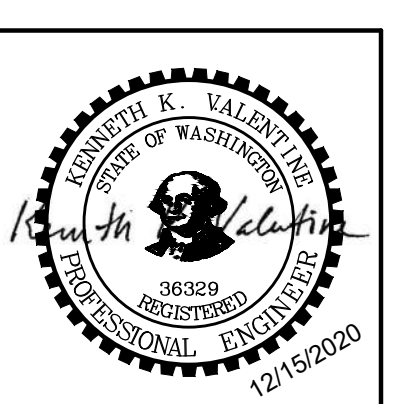
SEE SHEET C6.1 FOR ROSE WAY  
SANITARY SEWER PLAN AND PROFILE

SANITARY SEWER STRUCTURE DATA	
NUMBER	DESCRIPTION
SAN CO 1	CLEANOUT RIM = 23.48 8" IE IN (W) 17.44
SAN CO 2	CLEANOUT RIM = 24.21 6" IE IN (W) 19.00
SAN CO 3	CLEANOUT RIM = 24.72 6" IE IN (W) 19.00
SAN MH 1	48" SANITARY MANHOLE RIM = 23.95 12" IE IN (S) 10.10 12" IE OUT (N) 9.90 63 LF, S=0.32% 12" IE OUT (N) 10.00

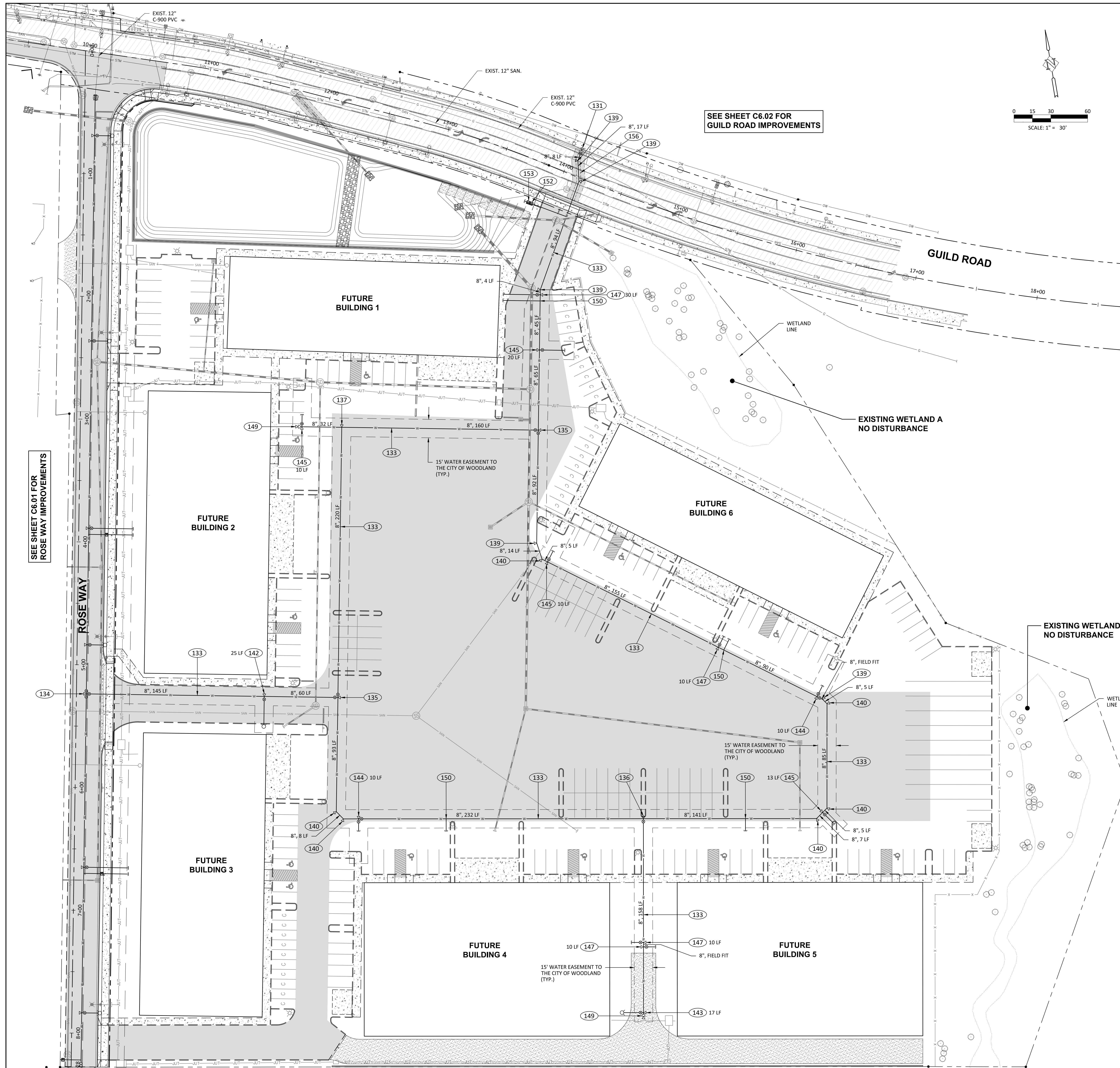
NOTE: SEE SHEET C6.01 FOR MH#3

**SANITARY SEWER PLAN**  
**ROSE WAY INDUSTRIAL PARK**  
 WOODLAND, WASHINGTON

**Harper Houf Peterson Righellis Inc.**  
 ENGINEERS & PLANNERS  
 LANDSCAPE ARCHITECTS & SURVEYORS  
 1220 Main Street, Suite 150, Vancouver, WA, 98660  
 phone: 360.570.1111 www.hhpr.com fax: 360.561.1411



DESIGNED: KKV	DATE: 12/15/2020
DRAWN: HHPR	
CHECKED: RAV	
R E V I S I O N S	
NO.	DESCRIPTION
SHEET NO. <b>C4.02</b>	
JOB NO. PWL-03	

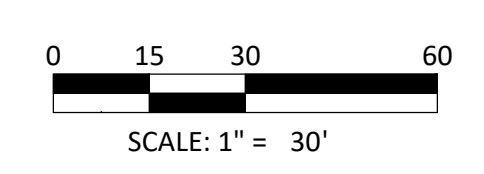


SEE SHEET C6.02 FOR GUILD ROAD IMPROVEMENTS

SEE SHEET C6.01 FOR ROSE WAY IMPROVEMENTS

**CONSTRUCTION NOTES:**

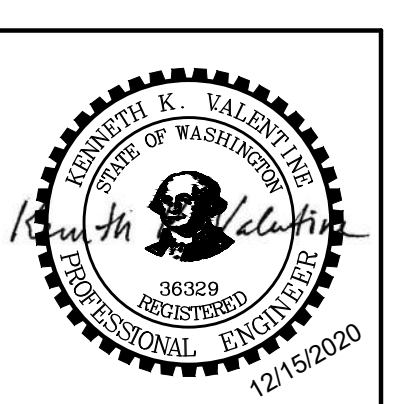
- 131 CONNECT TO EXISTING 12" PVC WATERMAIN AND INSTALL:  
1- 12" x 8" S.S. TAPPING SLEEVE, M.J. x FLG.  
1- 8" TAPPING GATE VALVE, FLG. x M.J.  
1- VALVE BOX TOP W/ 6" PVC PIPE EXT.  
1- THRUST BLOCK  
MECH. RESTRAIN ALL JOINTS. COORDINATE WITH CITY INSPECTOR.
- 133 INSTALL NEW C-900 PVC PIPE PER NOTES AND DETAILS, SHEET C7.05. SEE PLAN FOR SIZE AND LENGTH.
- 134 1- 12" x 8" D.I. TEE, FLG.  
2- 12" B.F.V., FLG. x M.J.  
1- 8" G.V., FLG. x M.J.  
3- VALVE BOX TOP W/ 6" PVC PIPE EXT.  
1- THRUST BLOCK  
MECH. RESTRAIN ALL JOINTS (MIN. 12 LF, ALL DIRECTIONS)
- 135 1- 8" x 8" D.I. TEE, FLG.  
2- 8" G.V., FLG. x M.J.  
1- 8" ADAPTER, FLG. x M.J.  
2- VALVE BOX TOP W/ 6" PVC PIPE EXT.  
1- THRUST BLOCK  
MECH. RESTRAIN ALL JOINTS (MIN. 12 LF, ALL DIRECTIONS)
- 136 1- 8" x 8" D.I. TEE, M.J. x FLG.  
1- 8" G.V., FLG. x M.J.  
1- VALVE BOX TOP W/ 6" PVC PIPE EXT.  
1- THRUST BLOCK  
MECH. RESTRAIN ALL JOINTS (MIN. 12 LF, ALL DIRECTIONS)
- 137 1- 8" x 8" D.I. TEE, M.J.  
1- THRUST BLOCK  
MECH. RESTRAIN ALL JOINTS (MIN. 12 LF, ALL DIRECTIONS)
- 139 1- 8", 22 1/2" D.I. BEND, M.J.  
1- THRUST BLOCK  
MECH. RESTRAIN ALL JOINTS
- 140 1- 8", 45" D.I. BEND, M.J.  
1- THRUST BLOCK  
MECH. RESTRAIN ALL JOINTS
- 142 INSTALL FIRE HYDRANT ASSEMBLY PER DETAIL W-14, SHEET C7.05 WITH:  
1- 4' x 4' CONCRETE PAD  
1- 8" x 6" D.I. TEE, M.J. x FLG.  
1- 6" G.V., FLG. x M.J.  
1- VALVE BOX TOP WITH 6" PVC PIPE EXT.  
1- THRUST BLOCK  
INSTALL 6" D.I. WATERMAIN PIPE TO HYDRANT. SEE PLAN FOR APPROX. LENGTH.  
MECH. RESTRAIN ALL JOINTS (MIN. 12 LF, BOTH DIRECTIONS) AND ALL JOINTS ON HYDRANT RUN
- 143 INSTALL FIRE HYDRANT ASSEMBLY PER DETAIL W-14, SHEET C7.05 WITH:  
1- 4' x 4' CONCRETE PAD  
1- 8" x 6" D.I. TEE, M.J. x FLG.  
1- 6" G.V., FLG. x M.J.  
1- VALVE BOX TOP WITH 6" PVC PIPE EXT.  
1- THRUST BLOCK  
INSTALL 6" D.I. WATERMAIN PIPE TO HYDRANT. SEE PLAN FOR APPROX. LENGTH.  
MECH. RESTRAIN ALL JOINTS (MIN. 12 LF, NORTH) AND ALL JOINTS ON HYDRANT RUN
- 144 INSTALL FIRE HYDRANT CONNECTION PER DETAIL W-14, SHEET C7.05 WITH:  
1- 8" x 6" D.I. TEE, FLG.  
1- 8" G.V., FLG. x M.J.  
1- 6" G.V., FLG. x M.J.  
1- 8" ADAPTER, FLG. x M.J.  
2- VALVE BOX TOP WITH 6" PVC PIPE EXT.  
1- THRUST BLOCK  
INSTALL 6" D.I. WATERMAIN PIPE, SEE PLAN FOR APPROX. LENGTH  
OMIT FIRE HYDRANT AND CAP END WITH MECHANICAL PIPE CAP AND MARKER.  
MECH. RESTRAIN ALL JOINTS (MIN. 12 LF, ALL DIRECTIONS)
- 145 INSTALL FIRE HYDRANT CONNECTION PER DETAIL W-14, SHEET C7.05 WITH:  
1- 8" x 6" D.I. TEE, M.J. x FLG.  
1- 6" G.V., FLG. x M.J.  
1- VALVE BOX TOP WITH 6" PVC PIPE EXT.  
1- THRUST BLOCK  
INSTALL 6" D.I. WATERMAIN PIPE, SEE PLAN FOR APPROX. LENGTH  
OMIT FIRE HYDRANT AND CAP END WITH MECHANICAL PIPE CAP AND MARKER.  
MECH. RESTRAIN ALL JOINTS (MIN. 12 LF, ALL DIRECTIONS)
- 147 1- 8" x 4" D.I. TEE, M.J. x FLG.  
1- 4" G.V., FLG. x M.J.  
1- VALVE BOX TOP W/ 6" PVC PIPE EXT.  
1- THRUST BLOCK  
INSTALL 4" C-900, PVC PIPE, SEE PLAN FOR APPROX. LENGTH. CAP END WITH MECHANICAL PIPE CAP AND MARKER.  
MECH. RESTRAIN ALL JOINTS (MIN. 12 LF, ALL DIRECTIONS)
- 149 1- 8" M.J. PLUG WITH THRUST BLOCK.
- 150 INSTALL 2" TAP AND CORP STOP, EXTEND 2" HDPE PIPE AS SHOWN AND INSTALL CORP STOP AT END.
- 152 INSTALL 2" WATER SERVICE PER DETAIL W-03, SHEET C7.05.
- 153 INSTALL 2" BACKFLOW PREVENTION VALVE WITH VAULT.
- 156 CONSTRUCT STANDARD TRENCH RESTORATION WITH CONTROL DENSITY FILL PER DETAILS T-34 AND T-35, SHEET C7.06.



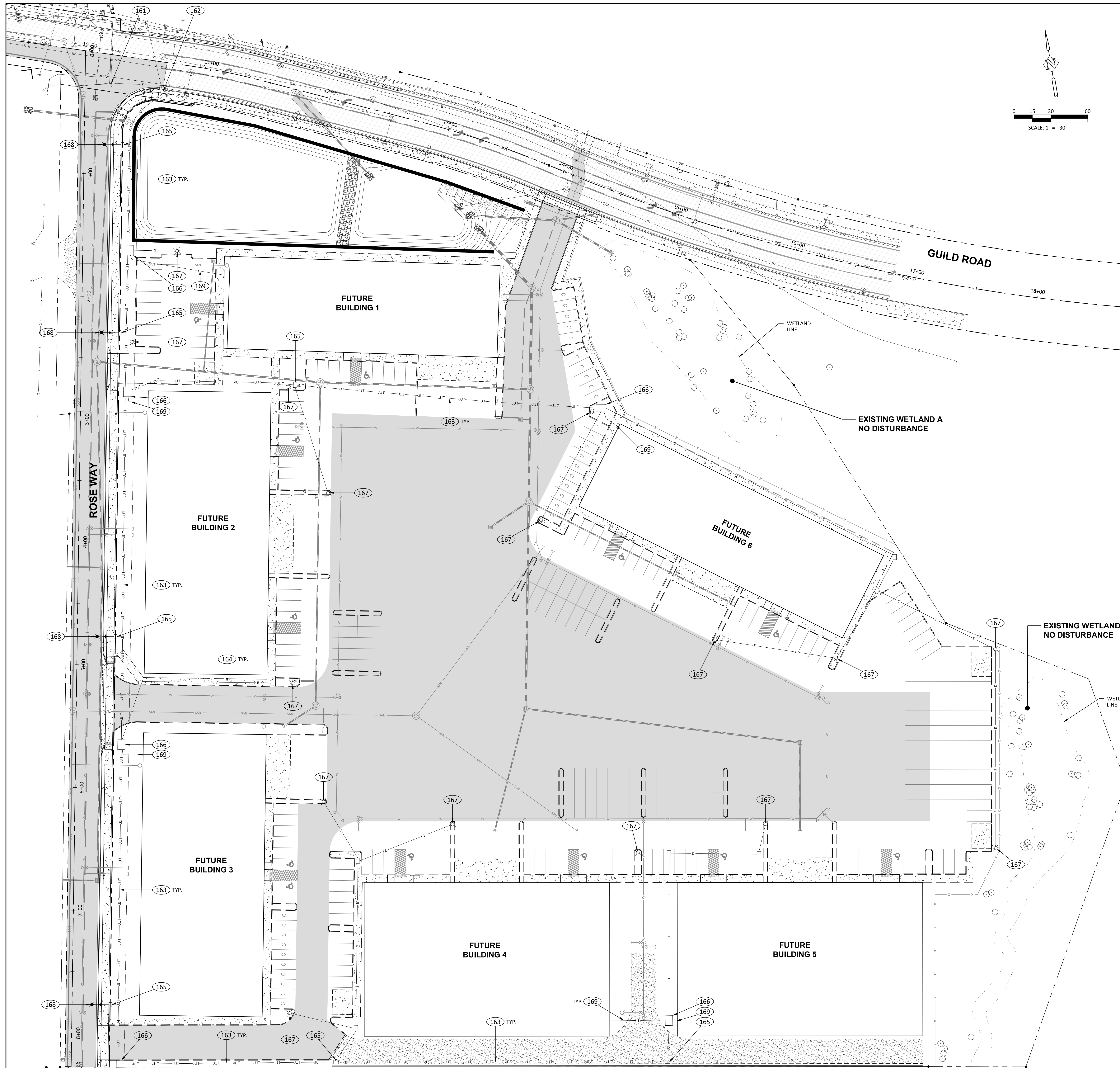
NOTE: CNG TO MONITOR ALL TRENCHING WITHIN 10' OF GAS LINES.

WATER PLAN  
 ROSE WAY INDUSTRIAL PARK  
 WOODLAND, WASHINGTON

**Harper Houf Peterson Righellis Inc.**  
 ENGINEERS & PLANNERS  
 LANDSCAPE ARCHITECTS & SURVEYORS  
 1220 Main Street, Suite 150, Vancouver, WA 98660  
 phone: 360.570.1111 www.hhpri.com fax: 360.561.1411



DESIGNED:	KKV	DATE:	12/15/2020
DRAWN:	HHPR	REVISIONS:	
CHECKED:	RAV	NO.	
DATE:		DESCRIPTION:	
1 REVISED PER PORT COMMENTS			
SHEET NO. <b>C4.03</b>			
JOB NO. PWL-03			

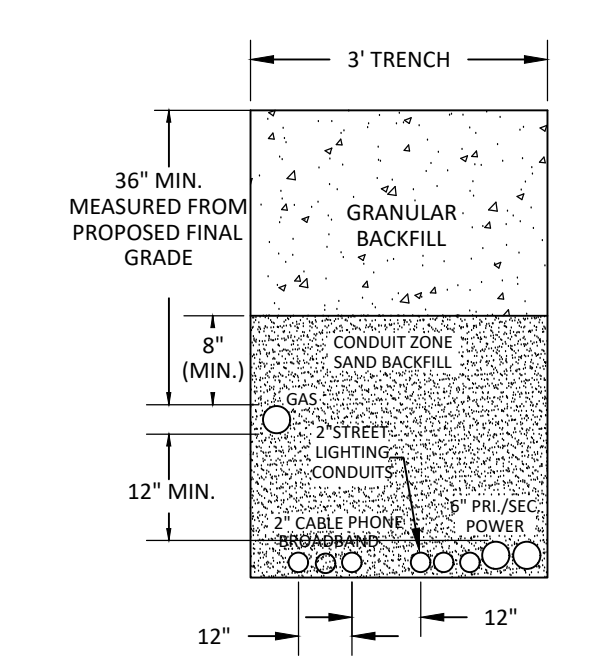


**CONSTRUCTION NOTES:**

- (161) RELOCATE EXISTING JUNCTION BOX AND ASSOCIATED CONDUITS. CONTRACTOR TO COORDINATE WITH PRIVATE UTILITIES AND PROPERTY OWNERS.
- (162) ADJUST EXISTING JUNCTION BOX TO FINISH GRADE. ROUTE 2" CONDUIT FOR ROSE WAY STREET LIGHTS, COORDINATE WITH COWLITZ COUNTY PUD.
- (163) INSTALL MISC. UTILITIES TRENCH SECTION PER DETAIL, THIS SHEET. COORDINATE WITH PUBLIC AND PRIVATE UTILITIES.
- (164) INSTALL 4" CONDUIT AND STUB UP WITH 90° SWEEP AT LIGHT POLE LOCATION. INSTALL PULL ROPE IN CONDUIT. WATER PROOF OPEN END OF CONDUIT. (NOT IN THIS CONTRACT)
- (165) INSTALL JUNCTION BOX. COORDINATE WITH PUD PRIOR TO PURCHASE.
- (166) INSTALL 575-TRANS-PCORP VAULT. COORDINATE WITH COWLITZ COUNTY PUD PRIOR TO PURCHASE.
- (167) INSTALL LIGHT POLE FOUNDATION. SWEEP CONDUIT FOR FUTURE CONNECTION. (NOT IN THIS CONTRACT)
- (168) INSTALL LIGHT POLE WITH TYPE ZZ LUMINAIRE. COORDINATE WITH COWLITZ COUNTY PUD.
- (169) INSTALL (3) 4" CONDUITS. (NOT IN THIS CONTRACT)

**LEGEND:**

- MISC. UTILITIES TRENCH
- FUTURE SERVICE CONDUIT (NOT IN THIS CONTRACT)



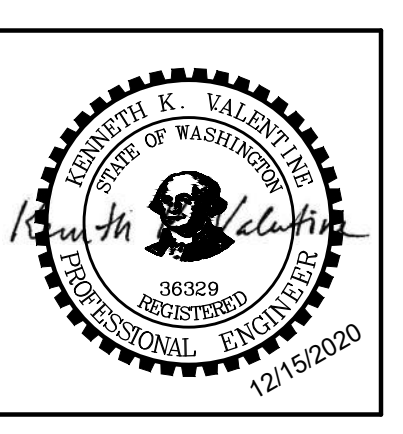
- NOTES:**
1. ALL CONDUITS MUST MAINTAIN THE REQUIRED SEPARATION FROM GAS LINES.
  2. PHONE AND CABLE WILL HAVE MULTIPLE CONDUITS WHICH MAY AFFECT TRENCH WIDTH. CONTRACTOR TO COORDINATE WITH PROVIDERS.
  3. NO WATER/IRRIGATION LINES SHALL BE WITHIN 36" OF GAS LINE OR POWER.
  4. ALL SITE AND STREET LIGHT CONDUITS SHALL BE 2" MIN.

**MISC. UTILITIES TRENCH SECTION**  
THIS SECTION IS SCHEMATIC AND FOR INFORMATIONAL PURPOSES.  
N.T.S.

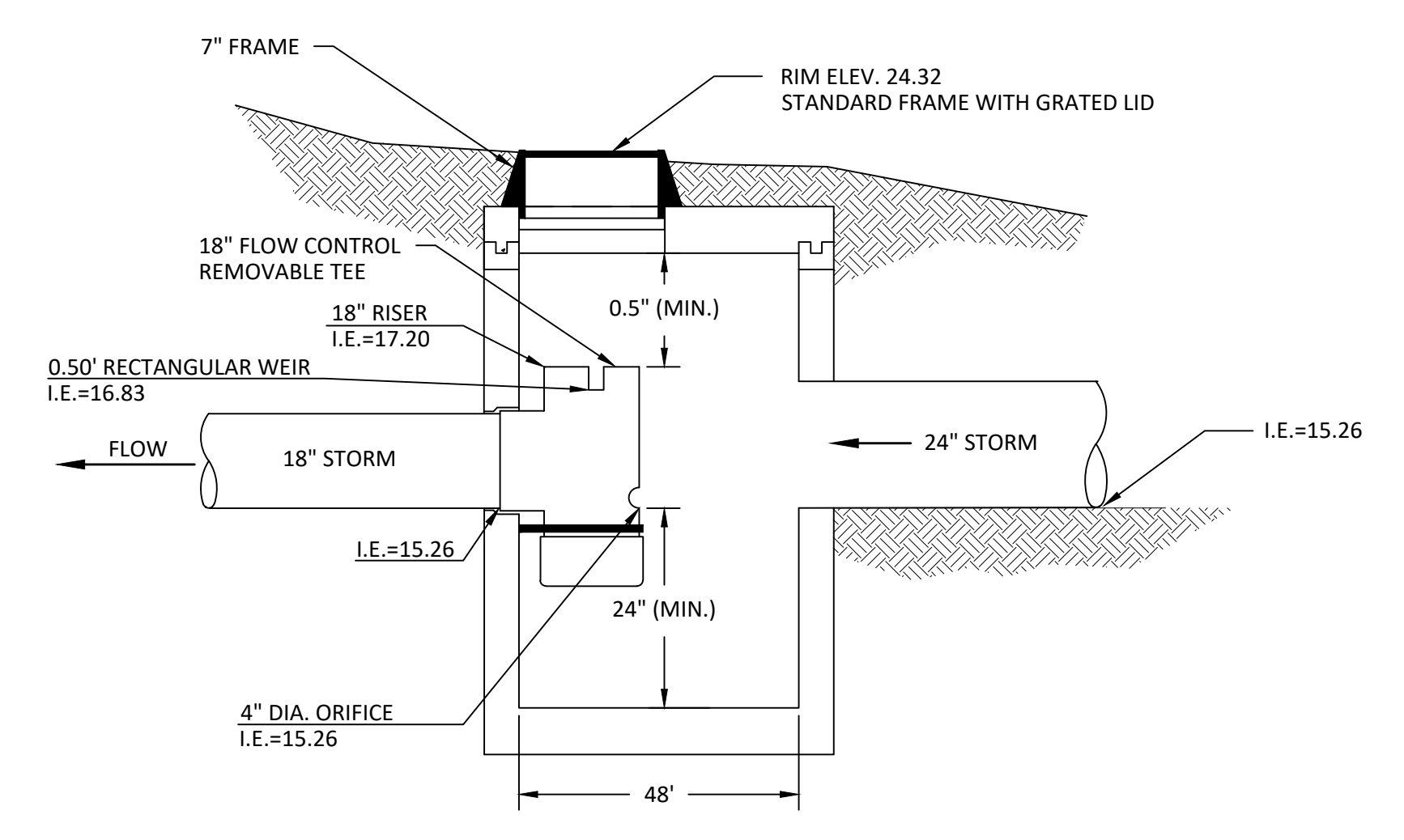
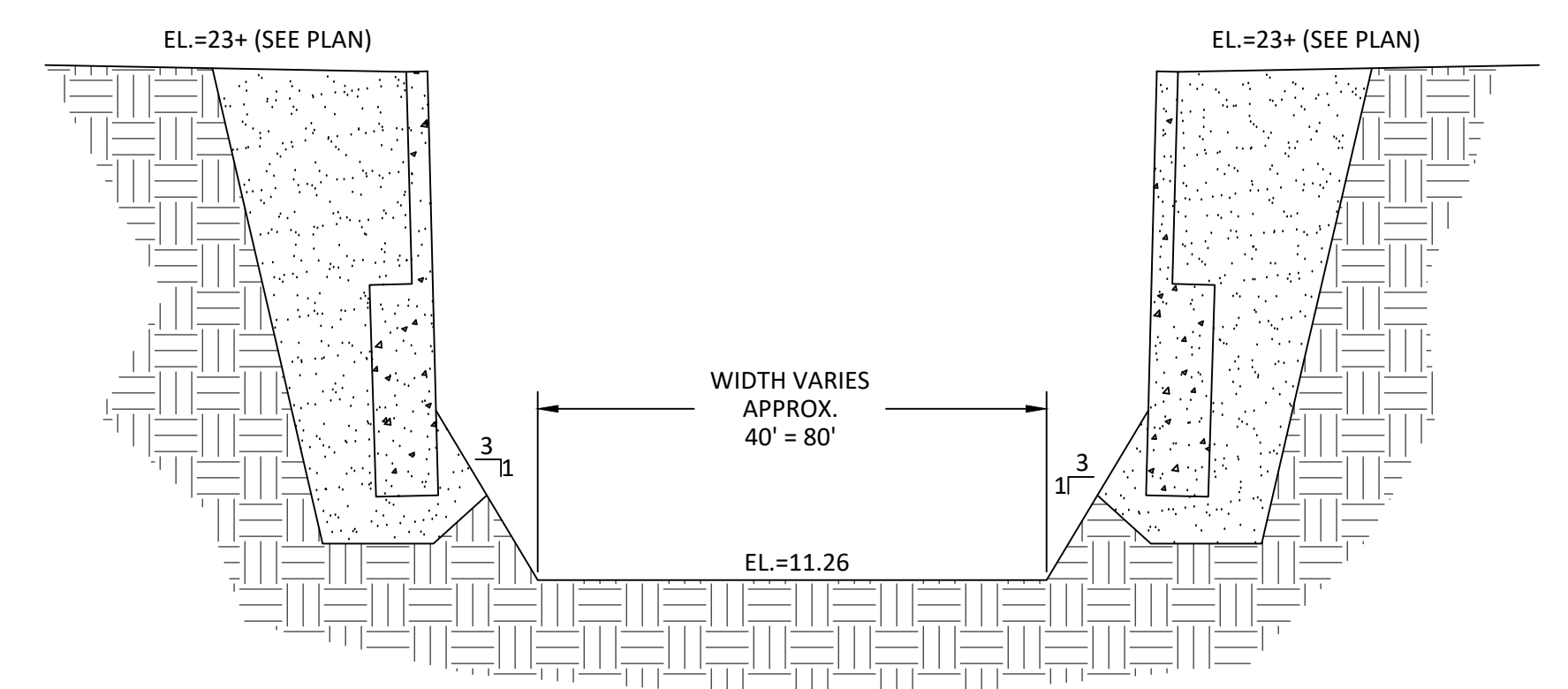
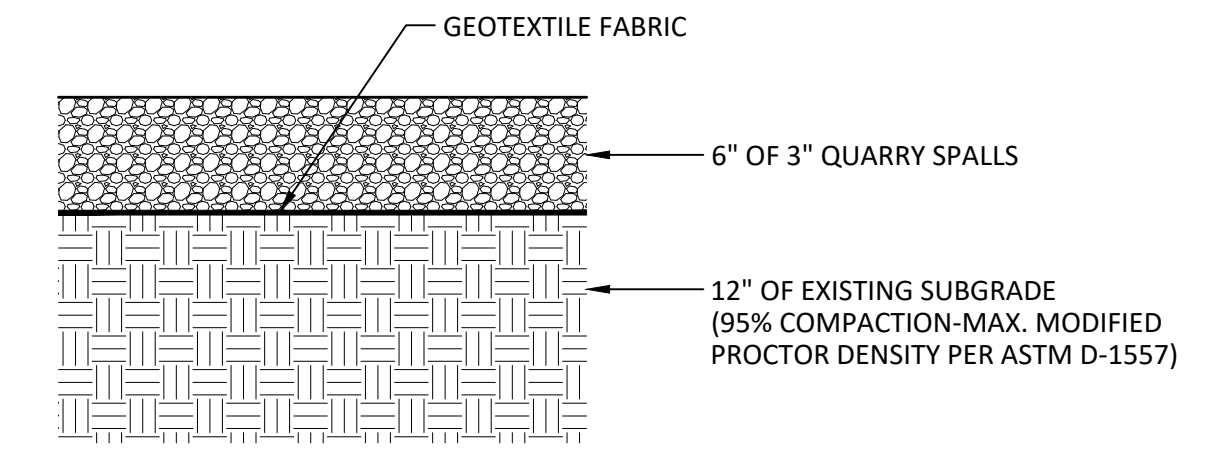
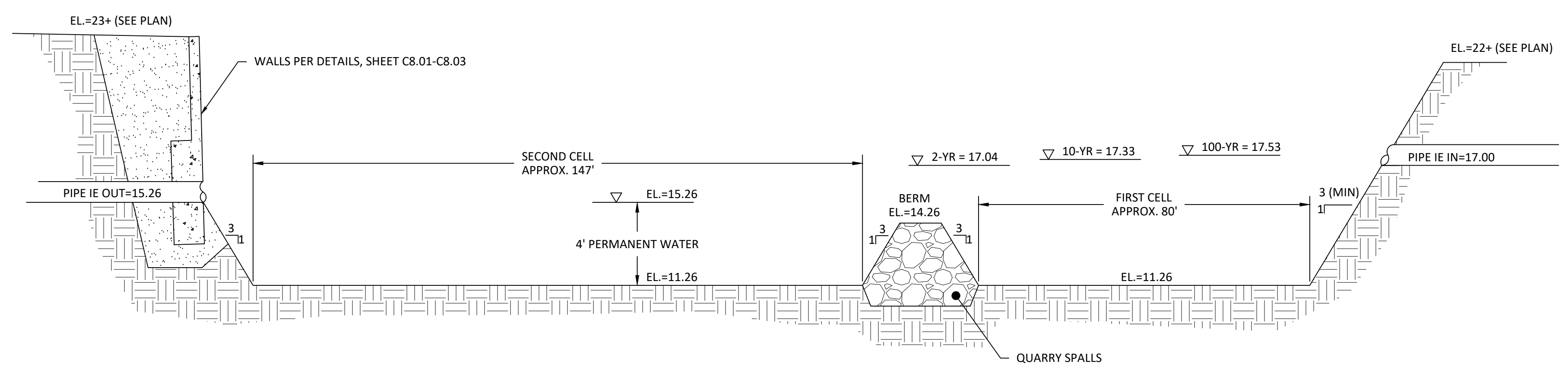
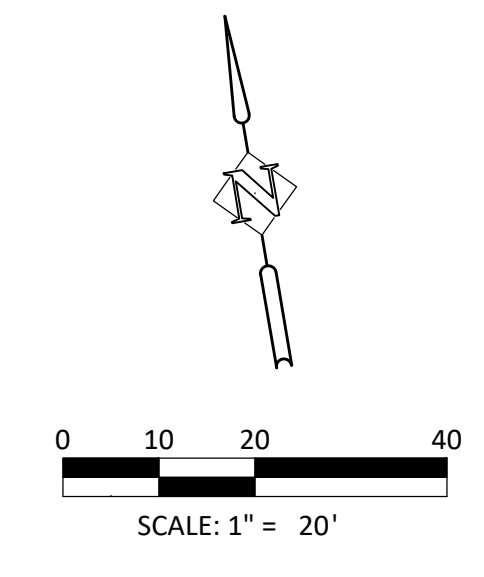
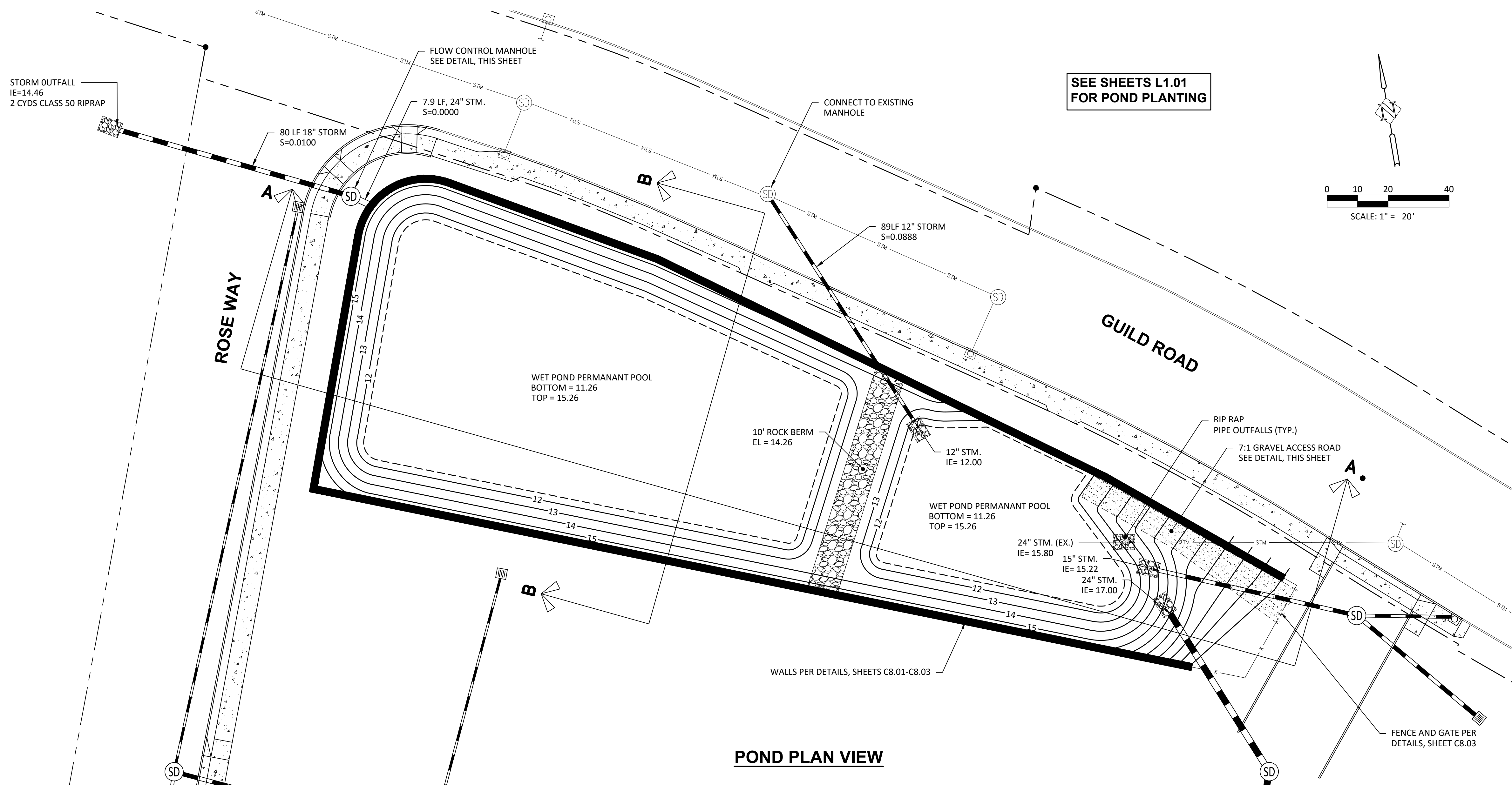
**NOTE: CONTRACTOR SHALL COORDINATE STREET LIGHTING DESIGN WITH COWLITZ PUD PRIOR TO PURCHASING MATERIALS AND INSTALLATION.**

PRIVATE UTILITY PLAN  
ROSE WAY INDUSTRIAL PARK  
WOODLAND, WASHINGTON

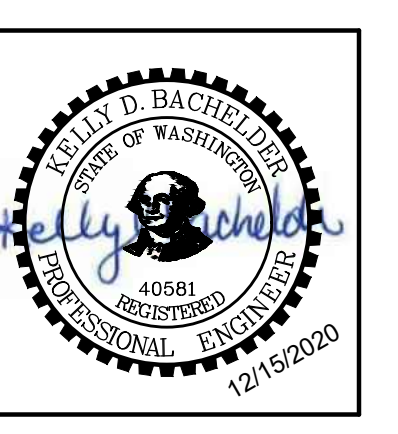
**Harper Houf Peterson Righellis Inc.**  
ENGINEERS & PLANNERS  
LANDSCAPE ARCHITECTS & SURVEYORS  
1220 Main Street, Suite 150, Vancouver, WA 98660  
phone: 360.750.1111 www.hhpr.com fax: 360.750.1141



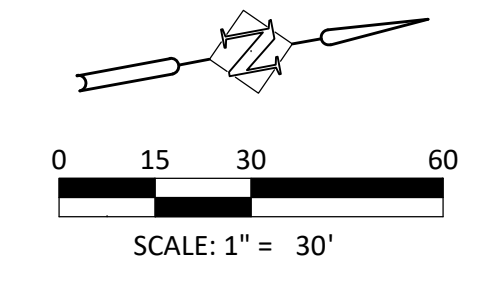
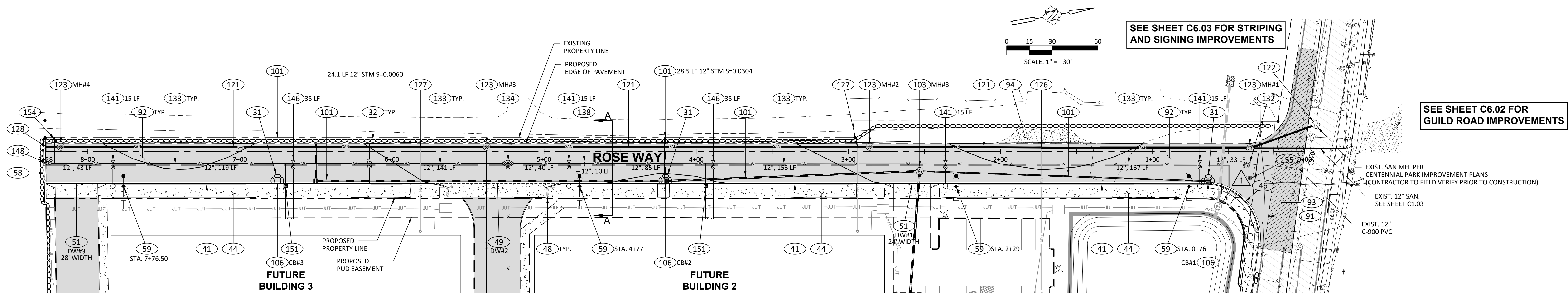
DESIGNED:	KKV	DRAWN:	HHPR	CHECKED:	RAV	DATE:	12/15/2020
REVISIONS							
NO.	DATE	NO.	DATE	NO.	DATE	NO.	DATE
SHEET NO. <b>C4.04</b>							
JOB NO. PWL-03							



**Harper Houf Peterson Righellis Inc.**  
 ENGINEERS & PLANNERS  
 LANDSCAPE ARCHITECTS & SURVEYORS  
 1220 Main Street, Suite 150, Vancouver, WA, 98660  
 phone: 360.750.1131 www.hhpr.com fax: 360.750.1141



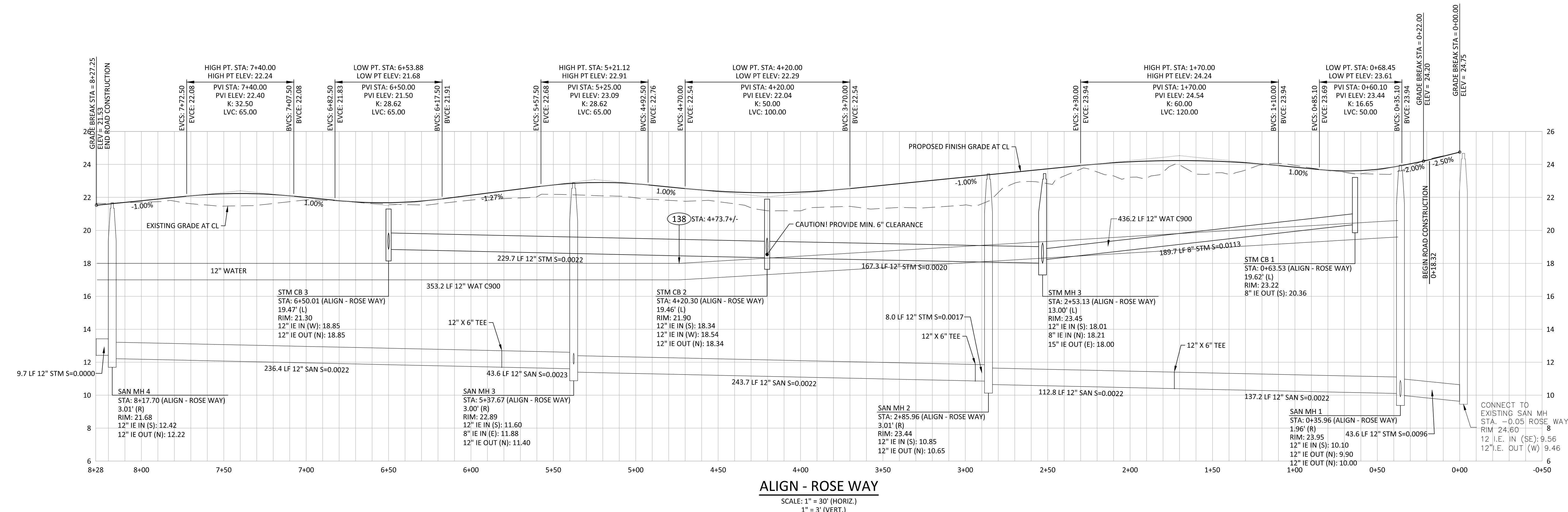
DESIGNED:	KOB	DRAWN:	HHPR	CHECKED:	RAV	DATE:	12/15/2020
REVISIONS	NO.	DATE	DESCRIPTION				
1							
SHEET NO. <b>C5.01</b>							
JOB NO. PWL-03							



SEE SHEET C6.03 FOR STRIPING AND SIGNING IMPROVEMENTS

SEE SHEET C6.02 FOR GUILD ROAD IMPROVEMENTS

NOTE: CONTRACTOR SHALL POTHOLE EXISTING UTILITIES AND PROVIDE DATA TO ENGINEER PRIOR TO ORDERING MATERIALS.



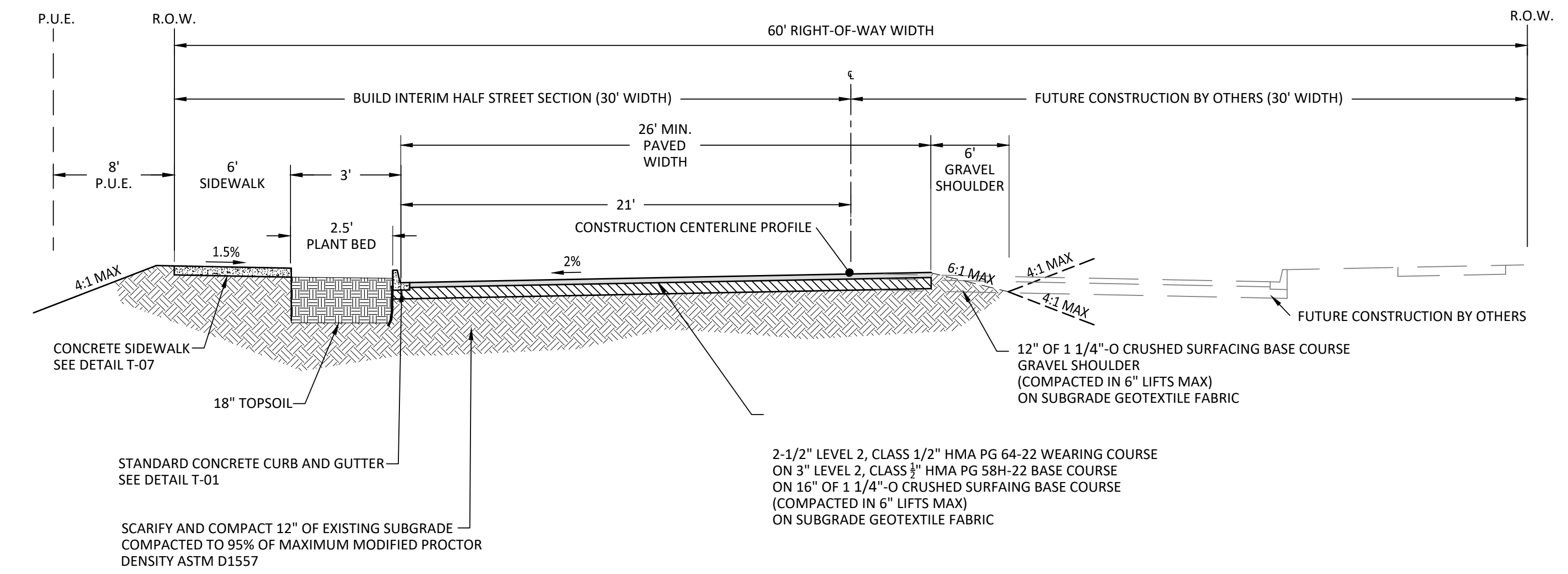
ALIGN - ROSE WAY  
SCALE: 1" = 30' (HORIZ.)  
1" = 3' (VERT.)

**CURB RETURN DATA**

PC STA. 0+64.58, 21.0' L (ROSE WAY)
PC ELEV = 23.23
1/4 Δ ELEV = 23.43
1/2 Δ ELEV = 23.63
3/4 Δ ELEV = 23.83
PT STA 10+60.98, 22.2' R (GUILD RD)
PT ELEV = 24.04
R = 35.0'
L = 59.34'
TAN = 39.66°
Δ = 97°08'28"

- CONSTRUCTION NOTES:**
- 31 INSTALL INLET PROTECTION PER DETAILS, SHEET C7.02.
  - 32 INSTALL EROSION CONTROL SILT FENCE PER DETAIL E-20, SHEET C7.02.
  - 41 CONSTRUCT TYPE A-1 CONCRETE CURB AND GUTTER PER DETAIL T-01, SHEET C7.06.
  - 44 CONSTRUCT 4" CONCRETE SIDEWALK PER DETAIL T-07, SHEET C7.06.
  - 46 CONSTRUCT DOUBLE PARALLEL ADA RAMP PER CITY SPECIFICATIONS. REFER TO DETAIL T-15, SHEET C7.06. SEE SHEET C3.02 FOR DETAILED GRADES.
  - 48 INSTALL DETECTABLE WARNINGS PER DETAIL T-21, SHEET C7.06.
  - 49 CONSTRUCT 30" DRIVEWAY PER DETAIL T-06, SHEET C7.06. SEE SHEET C3.02 FOR DETAILED GRADES.
  - 51 CONSTRUCT DRIVEWAY PER DETAIL T-03, SHEET C7.06. SEE SHEET C3.02 FOR DETAILED GRADES.
  - 58 INSTALL TYPE 3 BARRICADE PER DETAIL K-80.20-00, SHEET C7.07.
  - 59 STREET LIGHT. SEE SHEET C4.04 FOR ADDITIONAL INFORMATION.
  - 91 SAWCUT EXISTING PAVEMENT TO CREATE A CLEAN VERTICAL EDGE.
  - 92 CONSTRUCT PAVEMENT SURFACE PER ROSE WAY TYPICAL SECTION, THIS SHEET.
  - 93 CONSTRUCT STANDARD PAVEMENT RESTORATION (WITH 2" OF PLANE AND OVERLAY) PER DETAIL T-36, SHEET C7.06.
  - 94 CONSTRUCT 28" GRAVEL DRIVEWAY. CONNECT TO EXISTING DRIVEWAY.
  - 101 INSTALL STORM PIPE PER BEDDING AND BACKFILL DETAILS, SHEET C7.03. SEE PLAN AND/OR ROSE WAY PROFILE, SHEET C6.01 FOR SIZE, LENGTH AND SLOPE.
  - 103 INSTALL STORM MANHOLE PER DETAIL D-10, SHEET C7.03. SEE ROSE WAY PROFILE, SHEET C6.01 FOR RIM AND INVERT ELEVATIONS.
  - 106 INSTALL STD. CATCH BASIN PER DETAIL D-02, SHEET C7.03. SEE PROFILE FOR RIM AND INVERT ELEVATION.
  - 121 INSTALL SANITARY SEWER PIPE PER BEDDING AND BACKFILL DETAILS, SHEET C7.04. SEE PLAN AND/OR ROSE WAY PROFILE, SHEET C6.01 FOR SIZE, LENGTH AND SLOPE.
  - 122 CONNECT TO EXISTING SANITARY MANHOLE. CONTRACTOR SHALL FIELD VERIFY EXACT LOCATION AND POTENTIAL CONFLICT TO DESIGN.
  - 123 INSTALL STD. SANITARY SEWER MANHOLE PER DETAIL S-07, SHEET C7.04. SEE TABLE AND/OR ROSE WAY PROFILE, SHEET C6.01 FOR RIM AND INVERT ELEVATIONS.
  - 126 INSTALL 12" x 8" SANITARY SEWER TEE. SEE ROSE WAY PROFILE, SHEET C6.01 FOR INVERT ELEVATIONS.
  - 127 INSTALL 12" x 6" SANITARY SEWER TEE. SEE ROSE WAY PROFILE, SHEET C6.01 FOR INVERT ELEVATIONS.
  - 128 INSTALL PVC END CAP AND LATERAL MARKER.

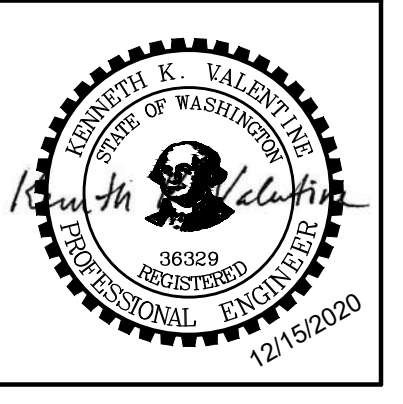
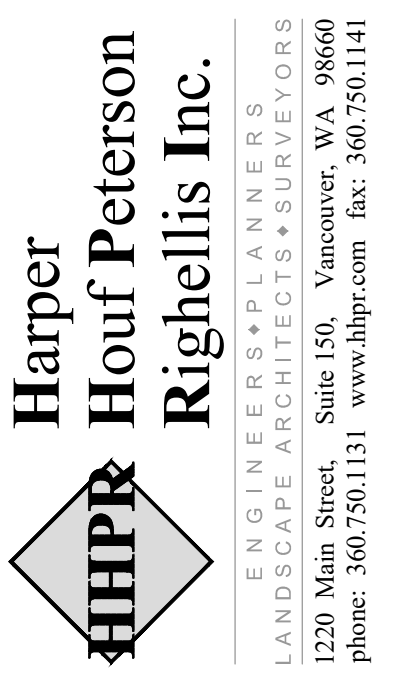
- 132 CUT AND REMOVE EXISTING BLOW-OFF ASSEMBLY. CONNECT TO EXISTING WITH:
  - 1 - 12", 11 1/4" (VERTICAL) D.I. BEND, M.J.
  - MECH. RESTRAINT ALL JOINTS AND EXTEND NEW 12" C-900 PVC PIPE
- 133 INSTALL NEW C-900 PVC PIPE PER NOTES AND DETAILS, SHEET C7.05. SEE PLAN FOR SIZE AND LENGTH.
- 134 1 - 12" x 8" D.I. TEE, FLG.
  - 2 - 12" B.F.V., FLG. x M.J.
  - 1 - 8" G.V., FLG. x M.J.
  - 3 - VALVE BOX TOP W/ 6" PVC PIPE EXT.
  - 1 - THRUST BLOCK
  - MECH. RESTRAIN ALL JOINTS (MIN. 12 LF, ALL DIRECTIONS)
- 138 1 - 12", 11 1/4" (VERTICAL) D.I. BEND, M.J.
  - MECH. RESTRAINT ALL JOINTS (MIN. 12 LF, BOTH DIRECTIONS)
- 141 INSTALL FIRE HYDRANT ASSEMBLY PER DETAIL W-14, SHEET C7.05 WITH:
  - 1 - 4" x 4" CONCRETE PAD
  - 1 - 12" x 6" D.I. TEE, M.J. x FLG.
  - 1 - 6" G.V., FLG. x M.J.
  - 1 - VALVE BOX TOP WITH 6" PVC PIPE EXT.
  - 1 - THRUST BLOCK
  - INSTALL 6" D.I. WATERMAIN PIPE TO HYDRANT. SEE PLAN FOR APPROX. LENGTH.
  - MECH. RESTRAIN ALL JOINTS (MIN. 12 LF, BOTH DIRECTIONS) AND ALL JOINTS ON HYDRANT RUN
- 146 1 - 12" x 4" D.I. TEE, M.J. x FLG.
  - 1 - 4" G.V., FLG. x M.J.
  - 1 - VALVE BOX TOP W/ 6" PVC PIPE EXT.
  - 1 - THRUST BLOCK
  - INSTALL 4" C-900, PVC PIPE, SEE PLAN FOR APPROX. LENGTH. CAP END WITH MECHANICAL PIPE CAP AND MARKER.
  - MECH. RESTRAIN ALL JOINTS (MIN. 12 LF, ALL DIRECTIONS)
- 148 1 - STD. BLOW-OFF ASSEMBLY PER DETAIL W-10, SHEET C7.05.
- 151 INSTALL 2" WATER SERVICE PER DETAIL W-03, SHEET C7.05. EXTEND LINE TO BACKSIDE OF PUBLIC UTILITY EASEMENT
- 154 INSTALL 1" WATER SERVICE PER DETAIL W-02, SHEET C7.05. CONNECT TO EXISTING WATER SERVICE. COORDINATE WITH PROPERTY OWNER AND CITY.
- 155 REMOVE EXISTING WATER METER. CLOSE CORP STOP AND RECONNECT PER NOTE 154. COORDINATE WITH PROPERTY OWNER AND CITY.



ROSE WAY TYPICAL SECTION  
N.T.S.

SEE SHEETS C4.01 - C4.04 FOR SITE UTILITY IMPROVEMENTS

ROSE WAY PLAN AND PROFILE  
ROSE WAY INDUSTRIAL PARK  
WOODLAND, WASHINGTON

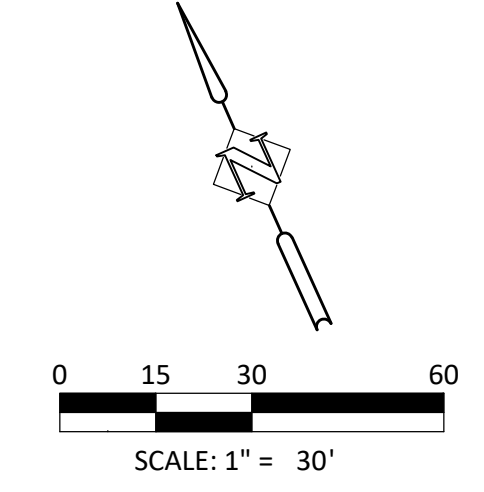


DESIGNED:	KKV	DATE:	12/15/2020
DRAWN:	HHPR	DESCRIPTION:	REVISIONS
CHECKED:	RAV	NO.	
DATE:		DATE:	
SHEET NO. C6.01			
JOB NO. PWL-03			

GUILD ROAD PLAN AND PROFILE  
 ROSE WAY INDUSTRIAL PARK  
 WOODLAND, WASHINGTON

**CONSTRUCTION NOTES:**

- 31 INSTALL INLET PROTECTION PER DETAILS, SHEET C7.02.
- 41 CONSTRUCT TYPE A-1 CONCRETE CURB AND GUTTER PER DETAIL T-01, SHEET C7.06.
- 44 CONSTRUCT 4" CONCRETE SIDEWALK PER DETAIL T-07, SHEET C7.06.
- 50 CONSTRUCT 30' DRIVEWAY PER DETAIL T-04, SHEET C7.06. SEE SHEET C3.02 FOR DETAILED GRADES.
- 91 SAWCUT EXISTING PAVEMENT TO CREATE A CLEAN VERTICAL EDGE.
- 93 CONSTRUCT STANDARD PAVEMENT RESTORATION (WITH 2" OF PLANE AND OVERLAY) PER DETAIL T-36, SHEET C7.06.
- 95 MATCH NEW CURB TO EXISTING CURB. TRANSITION LOCATION AND HEIGHT TO EXISTING CURB OVER 3 FEET.
- 96 MATCH NEW SIDEWALK ELEVATION AND LOCATION TO EXISTING SIDEWALK.
- 97 ROUTE SIDEWALK AROUND EXISTING LIGHT POLE TO PROVIDE 4' CLEARANCE.
- 98 CONSTRUCT PAVEMENT RESTORATION PER DETAIL T-30, SHEET C7.06.
- 108 INSTALL CURB INLET PER DETAIL D-03, SHEET C7.03. SEE PLAN FOR RIM AND INVERT ELEVATION.
- 131 CONNECT TO EXISTING 12" PVC WATERMAIN AND INSTALL:  
 1- 12" x 8" S.S. TAPPING SLEEVE, M.J. x FLG.  
 1- 8" TAPPING GATE VALVE, FLG. x M.J.  
 1- VALVE BOX TOP W/ 6" PVC PIPE EXT.  
 1- THRUST BLOCK  
 MECH. RESTRAIN ALL JOINTS. COORDINATE WITH CITY INSPECTOR.
- 162 ADJUST EXISTING JUNCTION BOX TO FINISH GRADE. ROUTE 2" CONDUIT FOR ROSE WAY STREET LIGHTS. COORDINATE WITH COWLITZ COUNTY PUD.



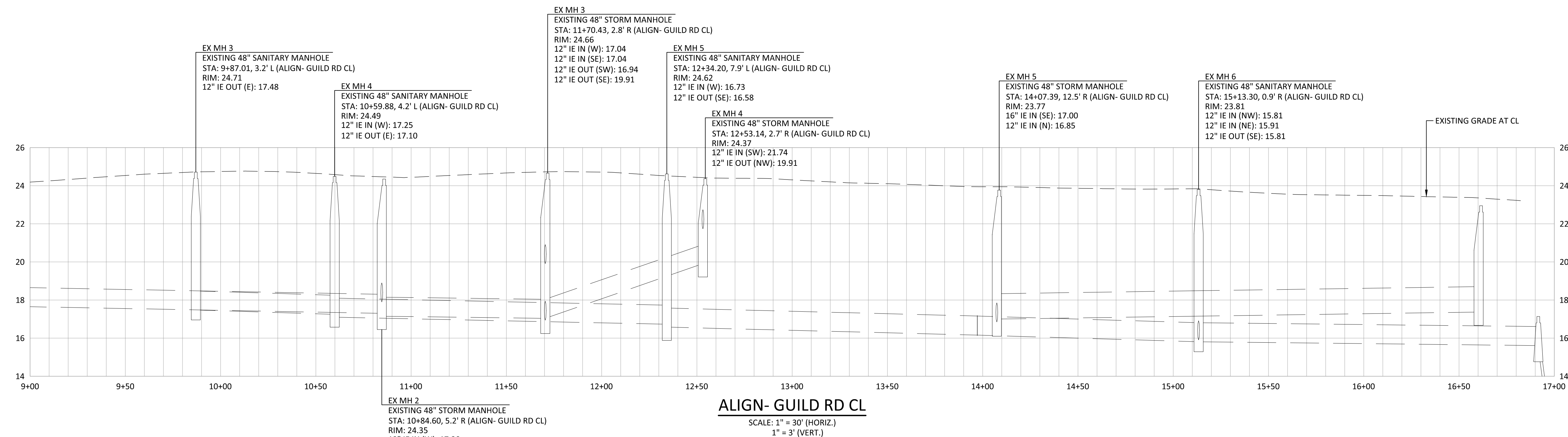
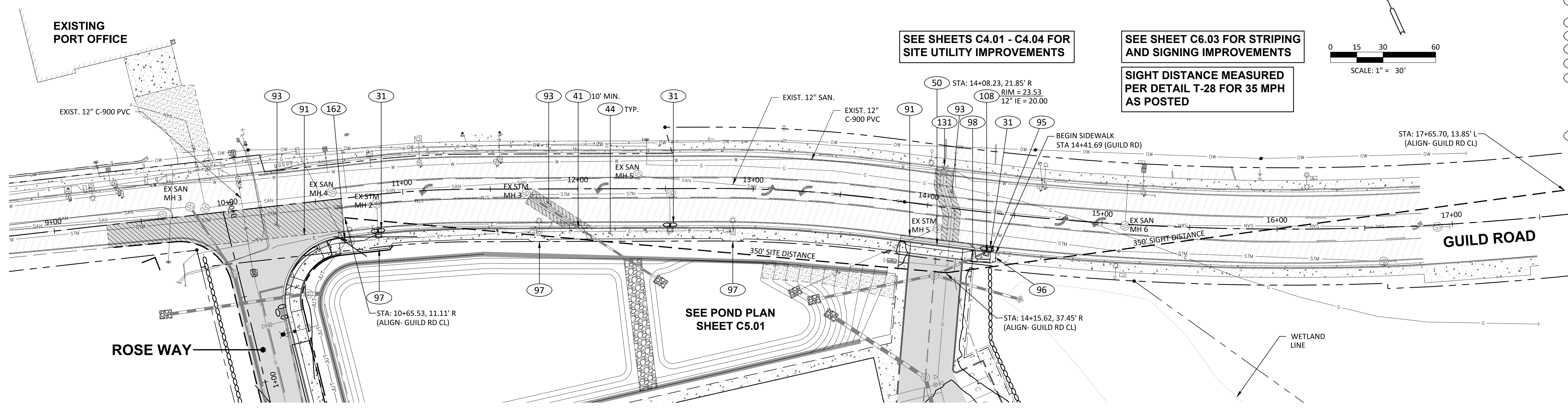
SEE SHEETS C4.01 - C4.04 FOR  
 SITE UTILITY IMPROVEMENTS

SEE SHEET C6.03 FOR STRIPING  
 AND SIGNING IMPROVEMENTS

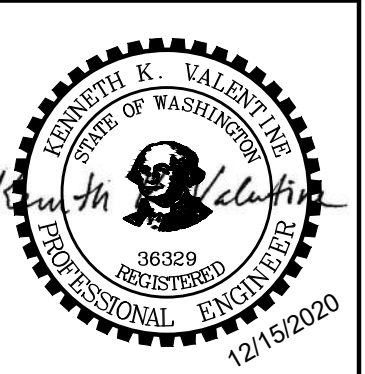
SIGHT DISTANCE MEASURED  
 PER DETAIL T-28 FOR 35 MPH  
 AS POSTED

SEE SHEET C6.01 FOR  
 ROSE WAY IMPROVEMENTS

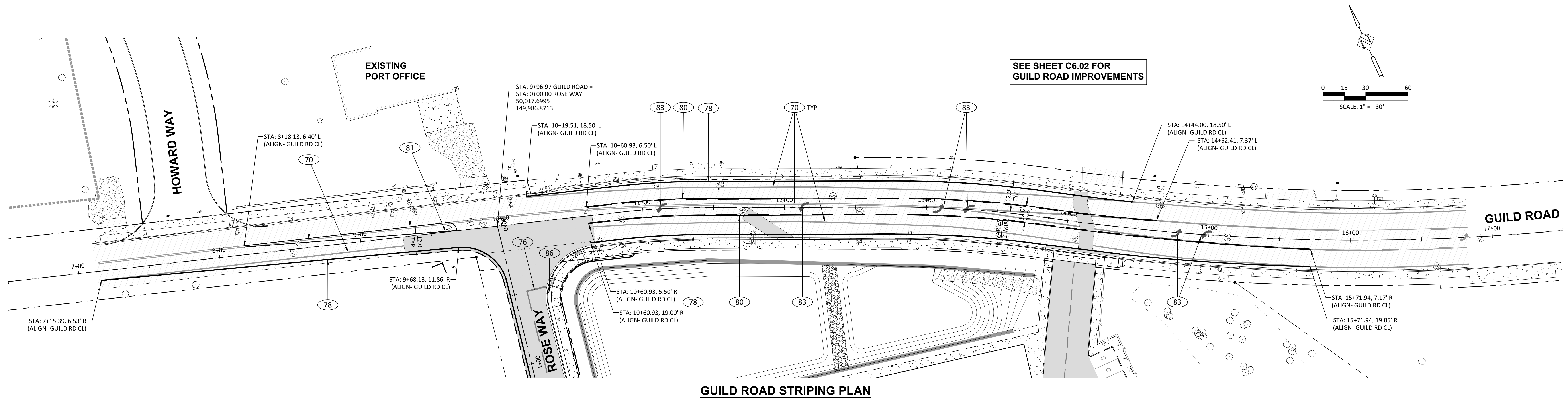
SEE POND PLAN  
 SHEET C5.01



**Harper Houf Peterson Righellis Inc.**  
 ENGINEERS + PLANNERS  
 LANDSCAPE ARCHITECTS + SURVEYORS  
 1220 Main Street, Suite 150, Vancouver, WA 98660  
 Phone: 360.750.1131 www.hhpri.com fax: 360.750.1141

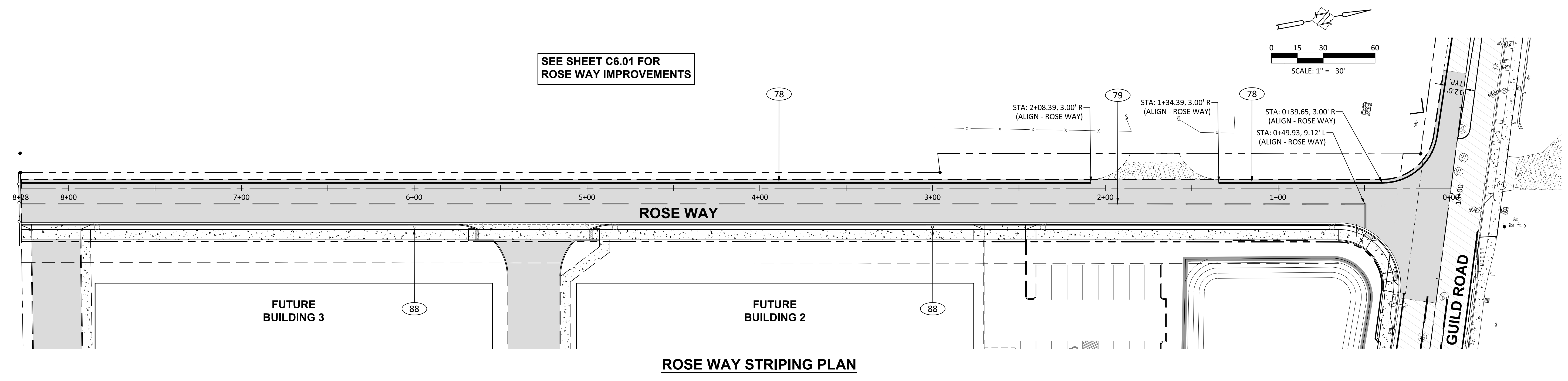


DESIGNED:	KKV	DRAWN:	HHPR	CHECKED:	RAV	DATE:	12/15/2020
REVISIONS	NO.	DATE	DESCRIPTION				
1							
SHEET NO. <b>C6.02</b>							
JOB NO. PWL-03							



**GUILD ROAD STRIPING PLAN**

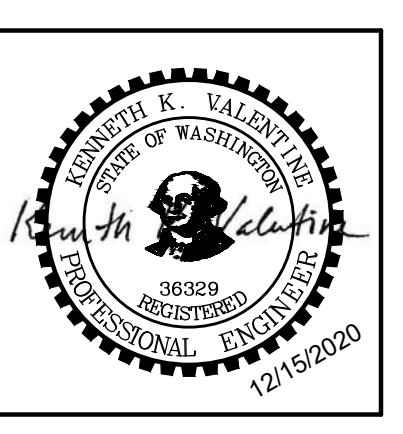
- CONSTRUCTION NOTES:**
- 70 REMOVE EXISTING LANE STRIPING PER COUNTY STANDARDS.
  - 76 PAINT STOP BAR PER DETAIL, SHEET C7.01.
  - 78 PAINT 8" WHITE WIDE EDGE LINE PER DETAIL M-20.10-03, SHEET C7.07.
  - 79 PAINT 8" WHITE WIDE BROKEN LANE LINE PER DETAIL M-20.10-03, SHEET C7.07.
  - 80 PAINT 4" YELLOW NO-PASSING & TWO-WAY LEFT-TURN LINE PER DETAIL M-20.10-03, SHEET C7.07.
  - 81 PAINT 4" YELLOW SOLID LANE LINE PER DETAIL M-20.10-03, SHEET C7.07.
  - 83 PAINT TYPE 2SL (LEFT) TRAFFIC ARROW PER DETAILS, SHEET C7.07.
  - 86 INSTALL STREET NAME SIGN (WITH STOP SIGN) PER DETAIL T-30, SHEET C7.06.
  - 88 INSTALL "NO PARKING ANY TIME" SIGN PER DETAILS, SHEET C7.01.



**ROSE WAY STRIPING PLAN**

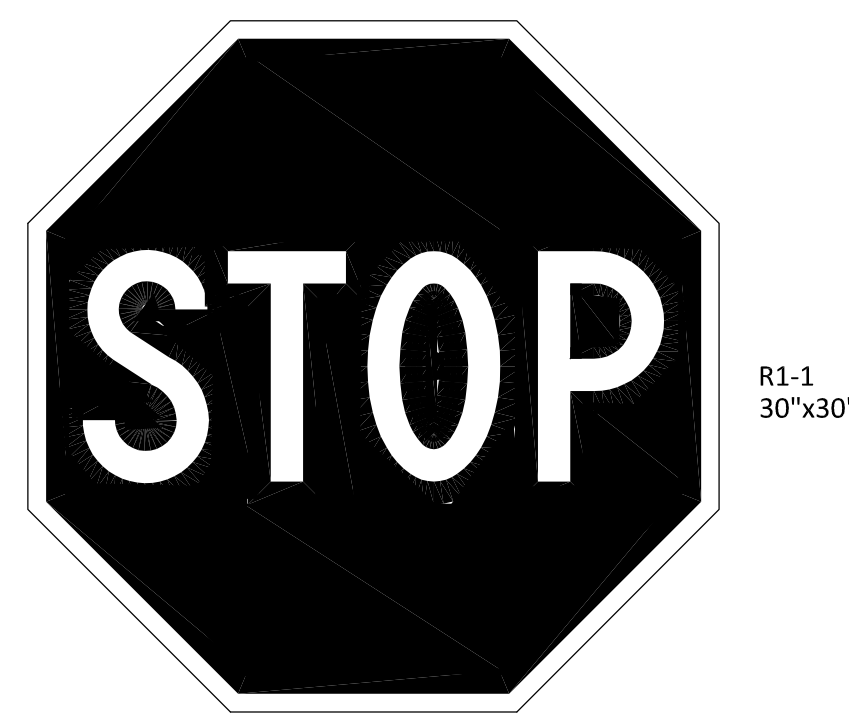
**PUBLIC SIGNING AND STRIPING PLAN**  
**ROSE WAY INDUSTRIAL PARK**  
 WOODLAND, WASHINGTON

**Harper Houf Peterson Righellis Inc.**  
 ENGINEERS + PLANNERS  
 LANDSCAPE ARCHITECTS + SURVEYORS  
 1220 Main Street, Suite 150, Vancouver, WA, 98660  
 phone: 360.750.1111 www.hhpri.com fax: 360.750.1141



DESIGNED:	KKV	DRAWN:	HHPR	CHECKED:	RAV	DATE:	12/15/2020
REVISIONS	NO.	DATE	DESCRIPTION				
1			REVISED PER PORT COMMENTS				
SHEET NO. <b>C6.03</b>							
JOB NO. PWL-03							



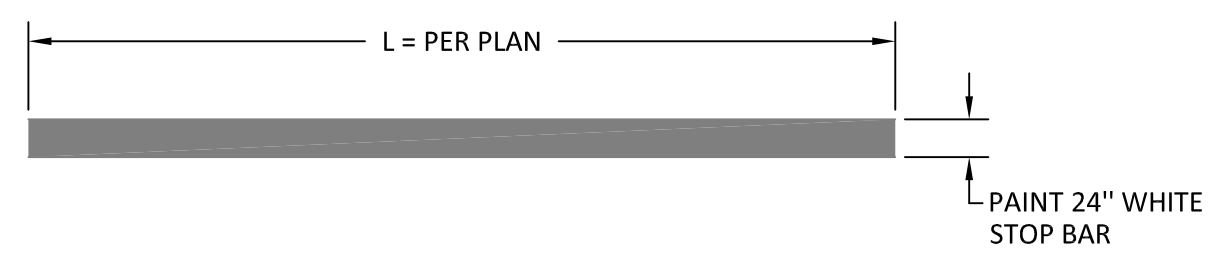


R1-1  
30"x30"

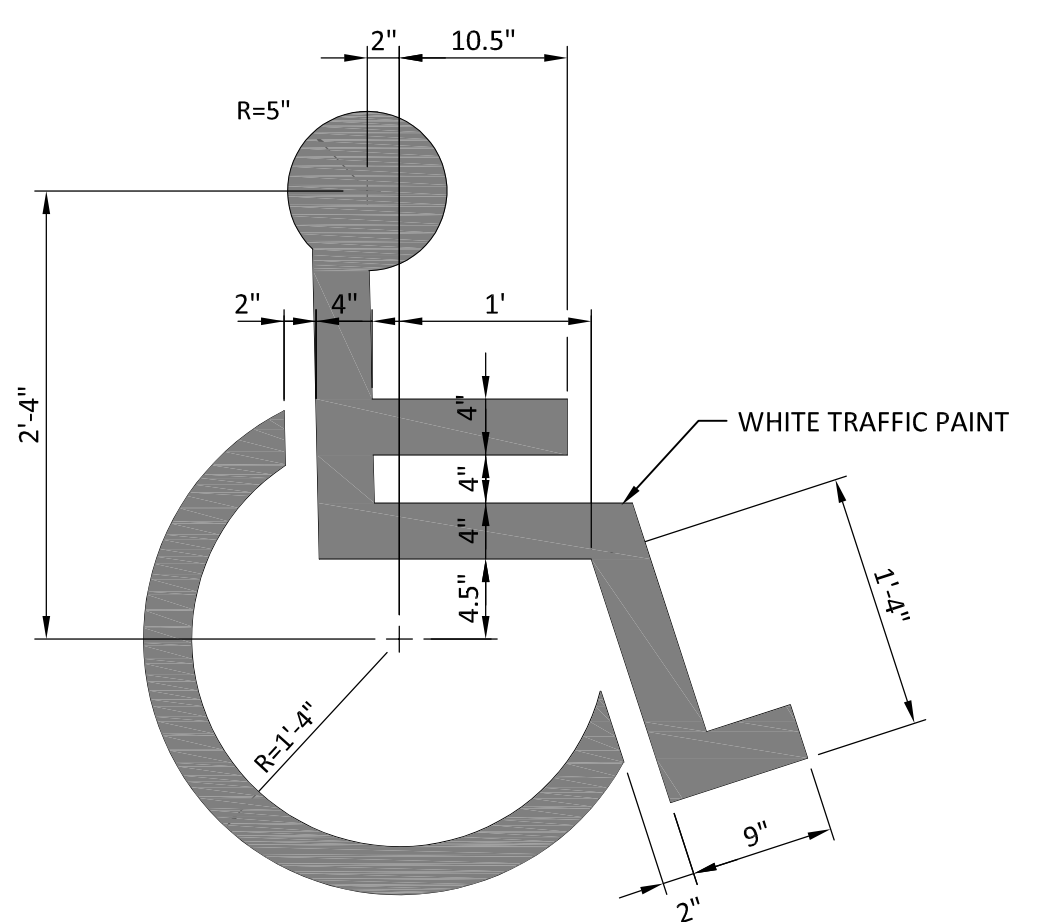


R7-1  
12"x18"

**SIGN LEGEND**  
N.T.S.

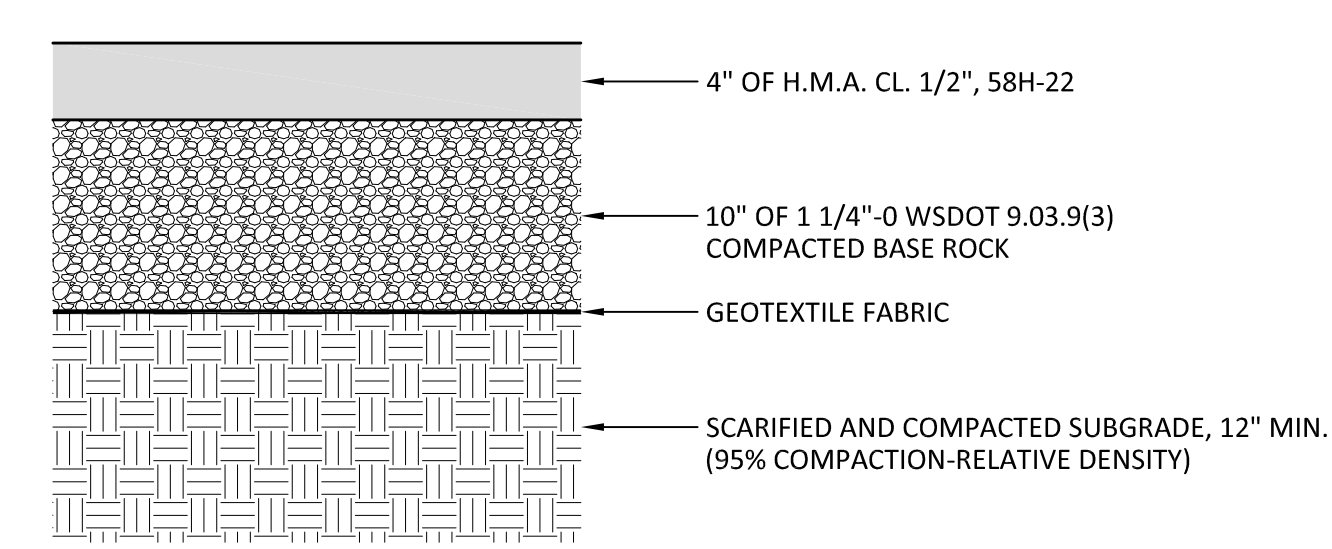


**STOP BAR**  
N.T.S.

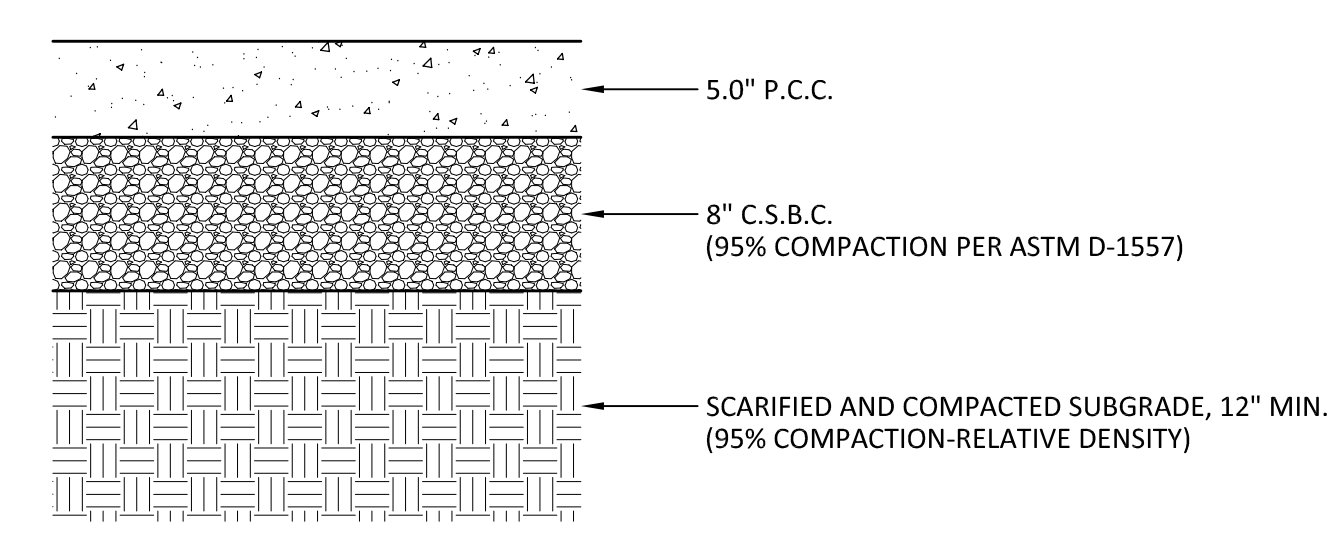


- NOTES:  
1. SYMBOL AND PAINT SHALL MEET CURRENT A.D.A. ACCESSIBILITY GUIDELINE REQUIREMENTS.

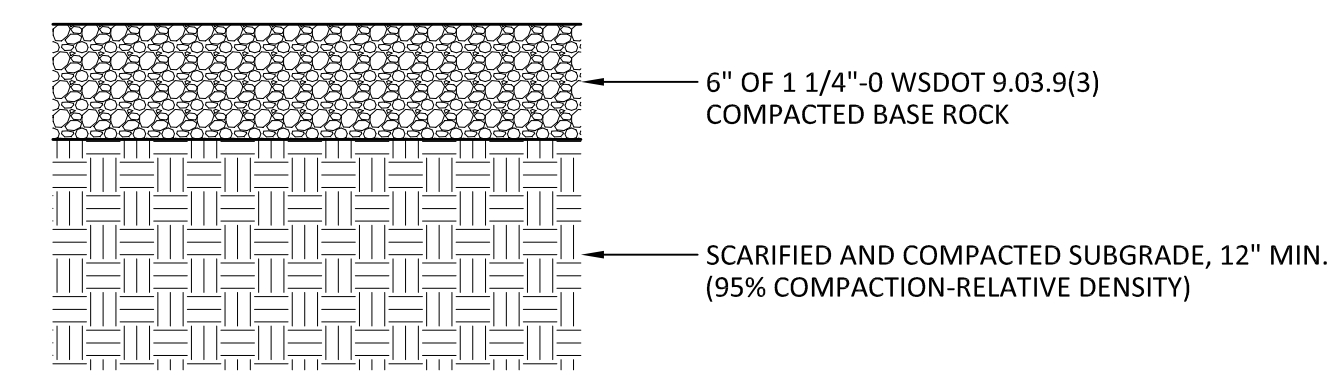
**ACCESSIBLE PARKING SYMBOL**  
N.T.S.



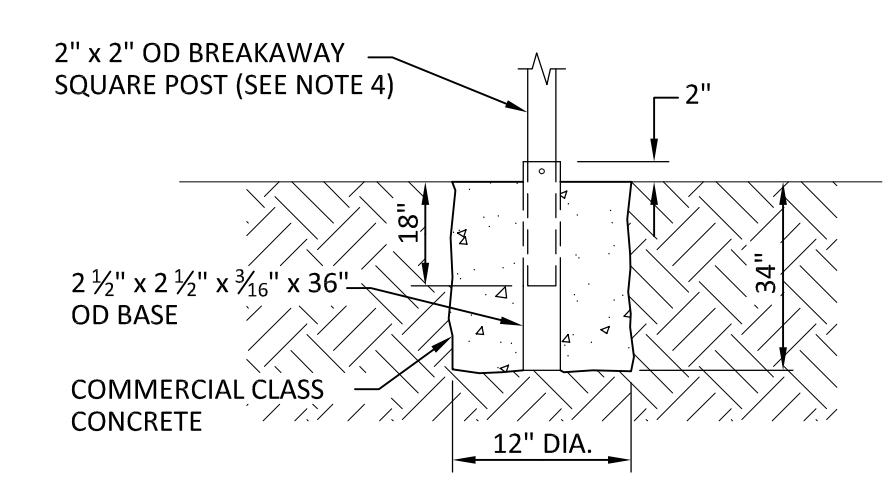
**H.M.A. PAVEMENT SECTION**  
N.T.S.



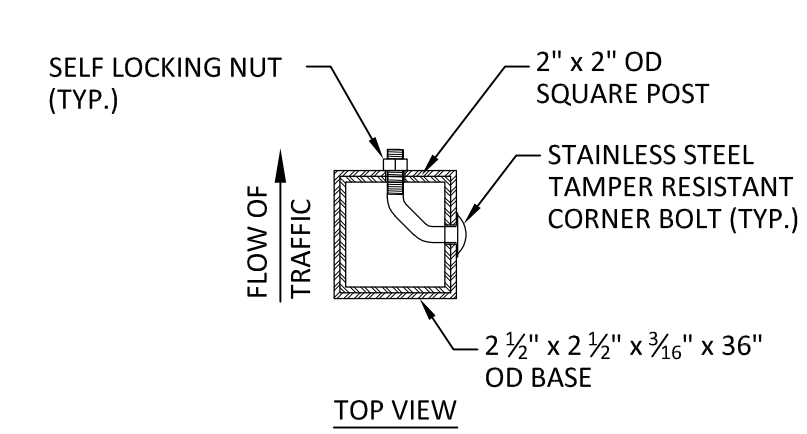
**CONCRETE PAD SECTION**  
N.T.S.



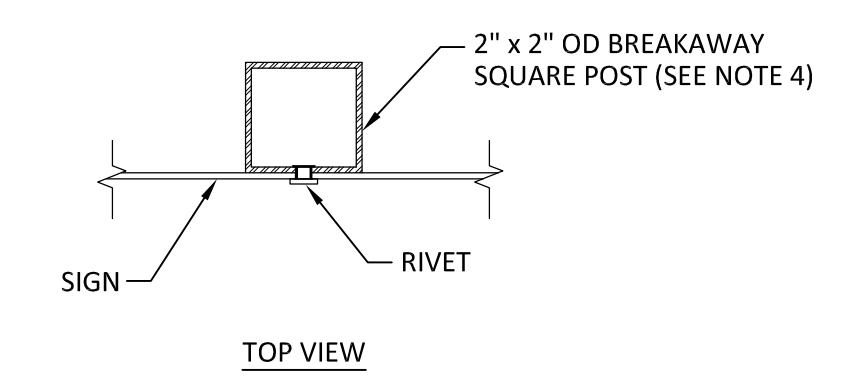
**GRAVEL ACCESS SECTION**  
N.T.S.



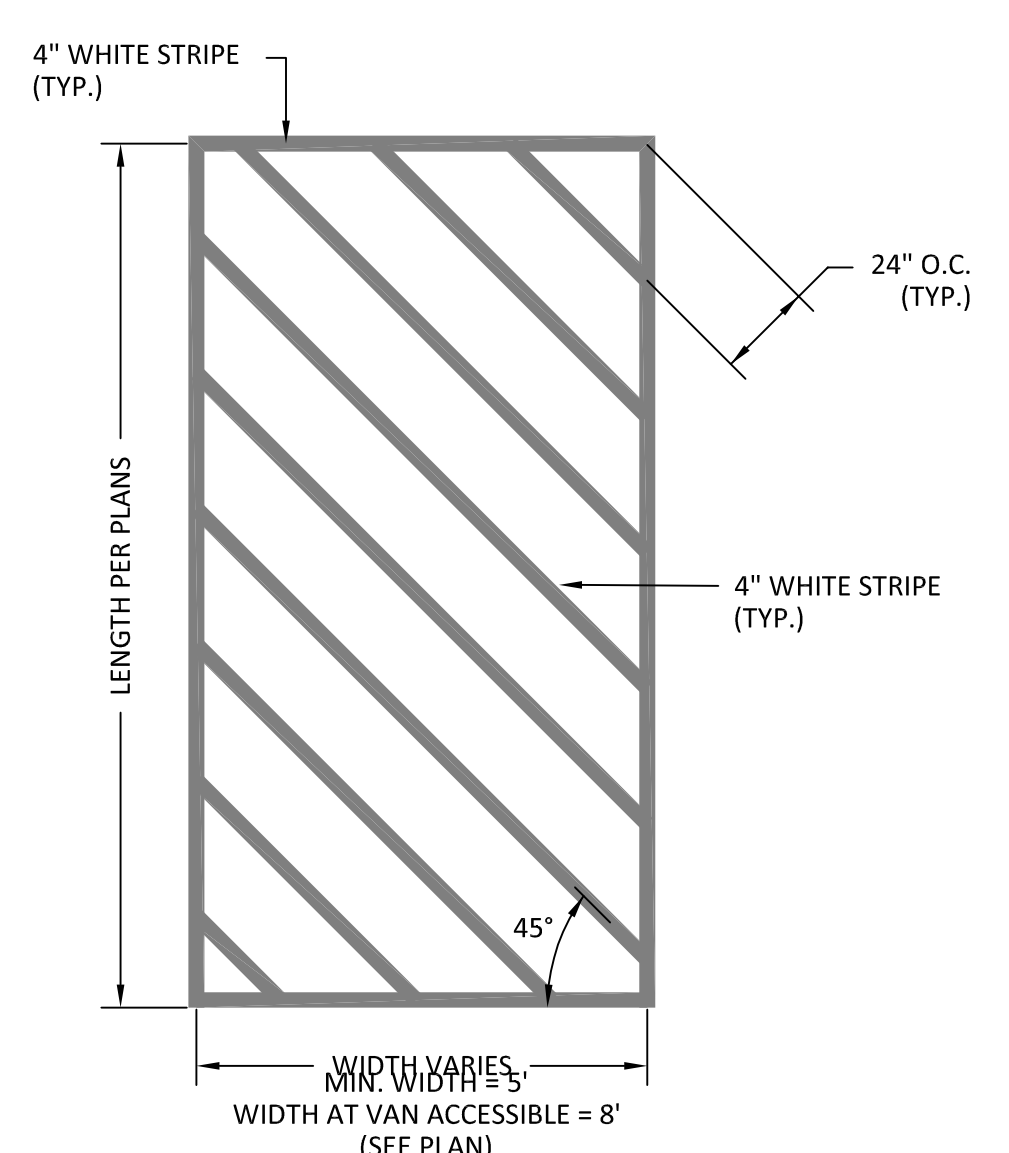
**ANCHOR INSTALLATION DETAIL**



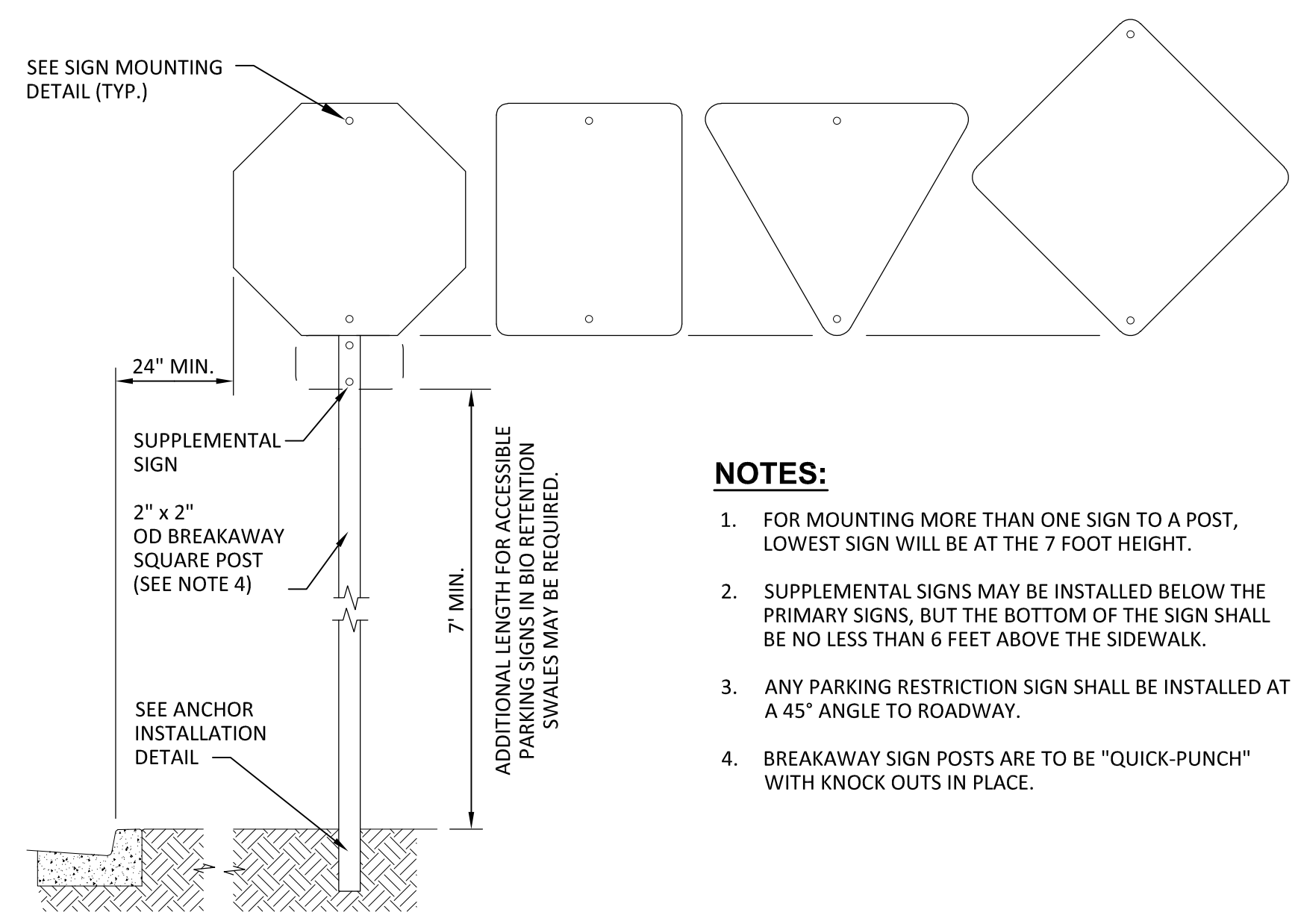
**ANCHOR DETAIL**



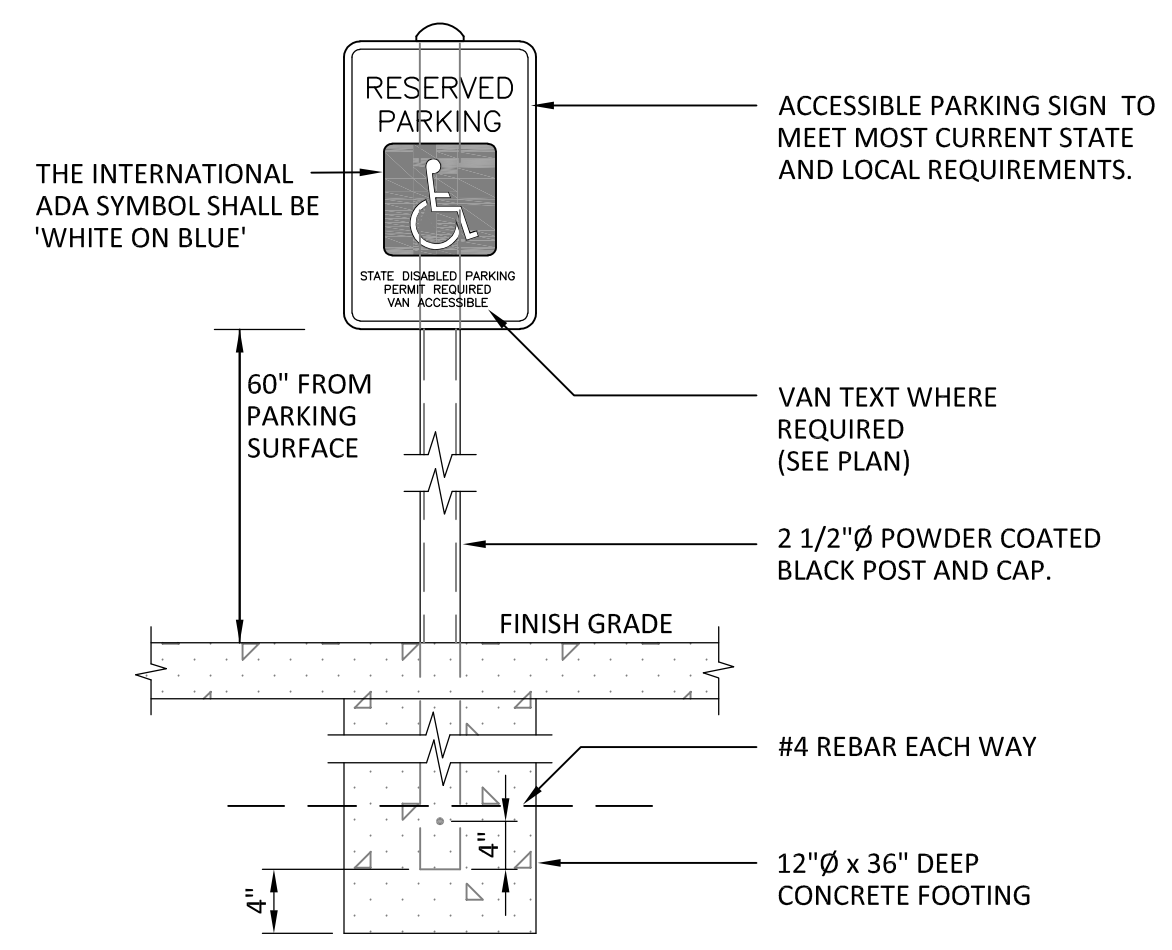
**SIGN MOUNTING DETAIL**



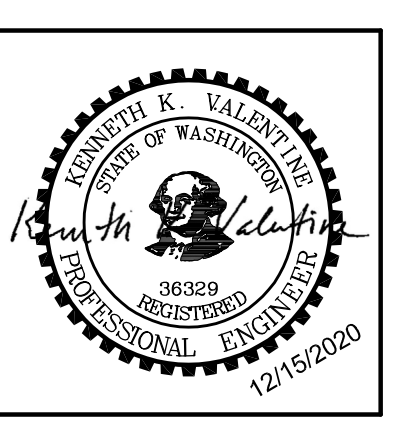
**ACCESSIBLE STALL CROSS STRIPING**  
N.T.S.



**GROUND MOUNTED SIGN DETAILS**  
N.T.S.



**ACCESSIBLE PARKING SIGN**  
N.T.S.



DESIGNED:	KKV	DRAWN:	HHPR	CHECKED:	RAV	DATE:	12/15/2020
REVISIONS							
NO.	DESCRIPTION	DATE					
1	REVISOR PER PORT COMMENTS						

**GENERAL EROSION PREVENTION & SEDIMENT CONTROL NOTES**

- ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IN PLACE AND IN WORKING CONDITION PRIOR TO ANY LAND DISTURBING ACTIVITY CAUSED BY CLEARING OR OTHER EROSION AND SEDIMENT CONTROL MEASURES SHALL BE APPROVED BY THE CITY PUBLIC WORKS DEPARTMENT PRIOR TO THE COMMENCEMENT OF WORK. THE CONTRACTOR SHALL CALL FOR AN ON-SITE INSPECTION WHEN EROSION AND SEDIMENT CONTROL MEASURES ARE IN PLACE AND PRIOR TO COMMENCEMENT OF WORK.
- THE EROSION AND SEDIMENT CONTROL MEASURES SHALL BE SITED, DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH THE REQUIREMENTS IN THE CITY OF WOODLAND'S EROSION PREVENTION AND SEDIMENT CONTROL MANUAL FOR WESTERN WASHINGTON, WHERE THE CITY OF WOODLAND GENERAL REQUIREMENTS SHALL TAKE PRECEDENCE.
- THE DEVELOPER IS RESPONSIBLE FOR MAINTAINING EROSION PREVENTION AND SEDIMENT CONTROL MEASURES DURING AND AFTER INSTALLATION OF ALL UTILITY WORK ACCORDING WITH CITY REQUIREMENTS.
- PROVIDE A 12" HIGH DEEP PAD OF CRUSHED ROCK FOR A DISTANCE OF 100 FEET INTO THE SITE FOR ALL ACCESS POINTS UTILIZED BY CONSTRUCTION EQUIPMENT AND TRUCKS. THE PAD SHALL BE 12" THICK AND 12" WIDE. ALL TRUCKS LEAVING THE SITE SHALL WASH WHEELS AND TIRMS ON THE PAD. THE PAD SHALL BE MAINTAINED AT ALL TIMES. THE PAD SHALL BE CLEANED AND REPAIRED AS NECESSARY. THE PAD SHALL BE MAINTAINED AT ALL TIMES. THE PAD SHALL BE CLEANED AND REPAIRED AS NECESSARY.
- THE CONTRACTOR SHALL NOT ALLOW SEDIMENT OR OTHER MATERIALS TO ENTER ANY OF EXISTING PIPES, CATCH BASINS OR WELLS DURING CONSTRUCTION.
- NEARLY CONSTRUCTED OR MODIFIED BARRIERS AND CATCH BASINS ARE TO BE PROTECTED IMMEDIATELY UPON INSTALLATION.
- TEMPORARY SEEDING AND MULCHING OF FULL SLOPES AND EROSION DICES SHALL BE COMPLETED WITHIN ONE WEEK AFTER ROUGH GRADING.
- ALL EXPOSED AND UNIMPROVED SOILS SHALL BE STABILIZED BY THE APPROPRIATE BEST MANAGEMENT PRACTICES (BMPs), DURING THE PERIOD FROM OCTOBER 15 TO APRIL 15. SOIL SHALL BE EXPOSED FOR MORE THAN TWO (2) DAYS FROM MAY 1 TO SEPTEMBER 30. NO SOIL SHALL BE EXPOSED FOR MORE THAN TWO (2) DAYS.
- WATER RESOURCES ARE TO BE PROTECTED BY THE FOLLOWING MEANS:  
 TEMPORARY: COVER PILES WITH TARP OR PLASTIC OR SHEETS WEIGHTED WITH CONCRETE BLOCKS, LAMBERS OR TIES.  
 PERMANENT: FENCE OR BARRIERS TO PROTECT FROM EXCESSIVE TRAFFIC. WASH TRUCKS AND EQUIPMENT PRIOR TO BE SURROUNDING WITH EROSION CONTROL.
- THE CONTRACTOR SHALL MAINTAIN ON SITE A WRITTEN DAILY LOG OF EROSION CONTROL BMP MAINTENANCE.
- IF THE CITY INSPECTOR OR ENGINEER (I/E) OBSERVES POOR CONSTRUCTION PRACTICES OR VIOLATIONS OF EROSION PREVENTION BMPs, CLOSURES AND/OR A STOP WORK ORDER SHALL BE ISSUED IMMEDIATELY. THE CONTRACTOR SHALL CORRECT THE VIOLATIONS AND NOTIFY THE CITY OF WOODLAND. IF THE STOP WORK ORDER IS NOT CORRECTED IMMEDIATELY, THE CITY OF WOODLAND SHALL NOTIFY THE PUBLIC WORKS DIRECTOR. THE PUBLIC WORKS DIRECTOR SHALL REQUIRE ADDITIONAL BMPs.

**PROTECTION OF ADJACENT PROPERTIES, ROADS AND STREAMS**

- PROVIDE A 12" HIGH DEEP PAD OF CRUSHED ROCK FOR A DISTANCE OF 100 FEET INTO THE SITE FOR ALL ACCESS POINTS UTILIZED BY CONSTRUCTION EQUIPMENT AND TRUCKS. THE PAD SHALL BE 12" THICK AND 12" WIDE. ALL TRUCKS LEAVING THE SITE SHALL WASH WHEELS AND TIRMS ON THE PAD. THE PAD SHALL BE MAINTAINED AT ALL TIMES. THE PAD SHALL BE CLEANED AND REPAIRED AS NECESSARY.
- PAVEMENT SHEEPING AND SHEKELING IS PROHIBITED. WASHING THE PAVEMENT INTO THE STORM SYSTEM IS NOT PERMITTED.
- AT SITES WITH LESS THAN 1' ACRES OF EXPOSED SOIL, PAD LENGTH MAY BE REDUCED TO 50 FEET. SINGLE FAMILY LOT ENTRANCES MAY HAVE THE PAD LENGTH REDUCED TO 25 FEET. A CONSTRUCTION ZONE SHALL BE ESTABLISHED IMMEDIATELY ON ADJACENT LOTS WITH THE SAME OWNER DURING CONSTRUCTION. ONE LOT ENTRANCE MAY BE USED TO ACCESS THE CONSTRUCTION ZONE.
- INSTALL SEDIMENT BARRIERS IN ACCORDANCE WITH THIS DETAIL SHEET PRIOR TO BUILDING CONSTRUCTION AND/OR EXCAVATION TO PREVENT SILT AND SOIL FROM ADJACENT LOTS. IF CONSTRUCTION OCCURS SIMULTANEOUSLY ON ADJACENT LOTS AND THE LOTS HAVE THE SAME OWNER DURING CONSTRUCTION, THE SILT FENCE ALONG THE COMMON LOT LINE MAY BE OBTAINED.
- CONSTRUCTION ROADS AND PARKING AREAS SHALL BE STABILIZED WHENEVER THEY ARE CONSTRUCTED, WHEN PERMANENT OR TEMPORARY, FOR THE USE OF CONSTRUCTION TRAFFIC.
- MAINTAIN AND REPAIR ALL SEDIMENT CONTROL AS SPECIFIED IN THE STANDARD DETAILS. THE CONTRACTOR SHALL REMOVE ALL ACCUMULATED SEDIMENT FROM THE CATCH BASINS, BARRIERS, SILT TRAPS AND STORM PIPES FROM TO ACCORDANCE BY THE CITY.
- SEDIMENT CONTROL BMPs SHALL BE INSPECTED WEEKLY AND AFTER ANY STORM EVENT. THE INSPECTION FREQUENCY FOR SILT TRAPS, SILT FENCES AND OTHER BMPs SHALL BE IN ACCORDANCE WITH THE LOCAL PAVING AUTHORITY. THE INSPECTION SHALL BE CONDUCTED AT THE END OF EACH WORKING DAY AND THE RESULTS SHALL BE RECORDED IN THE EROSION CONTROL LOG.
- ALL TEMPORARY EROSION PREVENTION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER SITE STABILIZATION IS COMPLETED OR AFTER TEMPORARY SEEDING AND MULCHING IS COMPLETED. TRAPPED SEDIMENT SHALL BE REMOVED OR STABILIZED ON SITE. DISTURBED SOIL AREAS RESULTING FROM CONSTRUCTION SHALL BE PERMANENTLY STABILIZED.
- DUST CONTROL**
- IN AREAS SUBJECT TO SURFACE AND AIR MOVEMENT OF DUST ONE OR MORE OF THE FOLLOWING PREVENTATIVE MEASURES SHALL BE TAKEN FOR DUST CONTROL:  
 A. WATER THE SURFACE OF THE ROAD OR OTHER EXPOSED SOIL.  
 B. STABILIZE THE SITE WITH MULCH UNTIL THE SURFACE IS NOT EXPOSED TO WIND.  
 C. DIRT COVERED SOIL AREAS WITH A DUST PALLIATIVE. NOTE: USE OF PETROLEUM PRODUCTS OR POTENTIALLY HAZARDOUS MATERIALS ARE PROHIBITED.
- EXPOSED SURFACES THAT WILL NOT BE BROUGHT TO FINAL GRADE OR COVERED WITHIN 30 DAYS OF THE EXPOSURE SHALL HAVE SOIL AND MULCH APPLIED TO STABILIZE SOIL AND REDUCE EROSION. SEDIMENT BARRIERS SHALL BE CHECKED REGULARLY TO ASSURE A PROPER POSITION OF GRATE OR OTHER MAINTENANCE AREAS THAT FAIL TO ESTABLISH VEGETATION COVER ADEQUATE TO PREVENT EROSION WILL BE REPAIRED AS SOON AS SUCH AREAS ARE IDENTIFIED.
- APPLY AN APPROVED TEMPORARY SEEDING MIXTURE TO THE PREPARED SEED BED AT A RATE OF 100 LBS/ACRE. NOTE: "HYDROSEEDING" APPLICATIONS WITH APPROVED SEED-MIXTURES MAY BE USED.

**EROSION PREVENTION AND SEDIMENT CONTROL**

APPROVED	REVISIONS	DATE	DRAWN	DESIGNED
<i>Paul Stepp</i>				
PUBLIC WORKS DIRECTOR				

E-03

**STABILIZED CONSTRUCTION ENTRANCE**

APPROVED: *Paul Stepp 11/6/14*  
 PUBLIC WORKS DIRECTOR

E-05

**CONCRETE TRUCK WASHOUT BASIN**

N.T.S.

NOTES:

- WASHOUT BASIN SIZE SHALL BE 10' X 10' X 2.5'
- COLLECT AND RETAIN ALL THE CONCRETE WASHOUT WATER AND SOLIDS IN A LEAK PROOF BASIN.
- INSPECT FREQUENTLY. DO NOT OVERFILL BASIN.
- RECYCLE MATERIALS.

A. WASHWATER RECYCLING: WASHWATER SHOULD BE PASSED THROUGH A FILTER AND TREATMENT SYSTEM TO REMOVE SOLIDS REDUCE PH. WASHWATER MAY BE REUSED FOR CONCRETE WASHOUT WATER. DISPOSAL OF WASHWATER SHALL BE AT AN APPROVED DISPOSAL FACILITY. DO NOT DRAIN TO STORM OR SANITARY SYSTEM.

B. SOLIDS RECYCLING: COURSE AGGREGATE MATERIALS THAT ARE SEPARATED FROM WASHWATER MAY BE RETURN TO READY MIX PLANT. COORDINATE WITH READY MIX PLANT PRIOR TO CONSTRUCTION.

C. HARDENED CONCRETE RECYCLING: ALLOW CONCRETE WASHOUT TO HARDEN IN BASIN. THE HARDENED CONCRETE MAY BE DELIVERED TO RECYCLING PLANTS.

**CONCRETE TRUCK WASHOUT BASIN**

N.T.S.

**INLET PROTECTION (1 OF 2)**

APPROVED: *Paul Stepp 11/6/14*  
 PUBLIC WORKS DIRECTOR

E-16

**INLET PROTECTION (2 OF 2)**

APPROVED: *Paul Stepp 11/6/14*  
 PUBLIC WORKS DIRECTOR

E-17

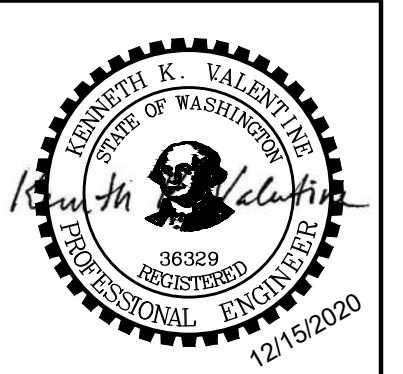
**SILT FENCE**

APPROVED: *Paul Stepp 11/6/14*  
 PUBLIC WORKS DIRECTOR

E-20

EROSION CONTROL NOTES AND DETAILS  
 ROSE WAY INDUSTRIAL PARK  
 WOODLAND, WASHINGTON

Harper Houf Peterson Rignellis Inc.  
 ENGINEERS & PLANNERS  
 LANDSCAPE ARCHITECTS & SURVEYORS  
 1220 Main Street, Suite 150, Vancouver, WA 98660  
 phone: 360.750.1111 www.hhpri.com



DESIGNED:	KKV	DATE:	12/15/2020
DRAWN:	HHPR	NO.	
CHECKED:	RAV	DESCRIPTION:	
1	REVISED PER PORT COMMENTS		
SHEET NO. <b>C7.02</b>			
JOB NO. PWL-03			

### GENERAL NOTES FOR STORM SEWERS

- ALL MATERIALS AND INSTALLATION OF STORM SEWERS AND DRAINAGE SYSTEMS SHALL BE IN CONFORMANCE WITH THE REQUIREMENTS IN THE CITY OF WOODLAND'S LATEST VERSION OF STANDARD DETAILS AND THE LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION CHAPTER OF THE AMERICAN PUBLIC WORKS ASSOCIATION (APWA) AND THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION, WHERE THE CITY OF WOODLAND REQUIREMENTS SHALL TAKE PRECEDENCE. WHEREVER THE STANDARD SPECIFICATIONS REFER TO THE OWNER AS EITHER THE "STATE" OR "DEPARTMENT" OR WHEN PREFERENCE IS MADE TO THE DEPARTMENT OF TRANSPORTATION IT SHALL BE UNDERSTOOD THAT THE STANDARD SPECIFICATIONS SHOULD READ THE "CITY".
- ALL STORM SEWER AND DRAINAGE SYSTEM CONSTRUCTION IS SUBJECT TO INSPECTION AND APPROVAL BY THE CITY OF WOODLAND'S PUBLIC WORKS DEPARTMENT. THE CONTRACTOR SHALL NOTIFY THE PUBLIC WORKS OFFICE (360) 225-7988 AT LEAST 48 HOURS PRIOR TO THE START OF ANY CONSTRUCTION. THE CITY MAY REQUIRE THAT A RECONSTRUCTION CONFERENCE BE HELD.
- THE CONTRACTOR IS REQUIRED TO NOTIFY ALL UTILITIES 48 HOURS PRIOR TO COMMENCEMENT OF WORK. THE CONTRACTOR MAY CONTACT THE NORTHWEST UTILITIES CONTRACTOR CENTER AT 1-800-424-5055 IN LIEU OF CONTACTING INDIVIDUAL UTILITIES.
- IT SHALL BE THE RESPONSIBILITY OF THE DEVELOPER AND/OR CONTRACTOR TO PRODUCE AND COMPLY WITH THE PROVISIONS OF ALL APPLICABLE PERMITS, EASEMENTS, LICENSES AND CERTIFICATES IN CONNECTION WITH THE CONSTRUCTION OF STORM SEWERS AND DRAINAGE SYSTEMS. COMPLIANCE SHALL BE AT ALL LEVELS: FEDERAL, STATE, AND CITY, RELATING TO THE PERFORMANCE OF THIS WORK. THE CONTRACTOR SHALL OBTAIN A STREET CLOSURE PERMIT FOR WORK WITHIN THE PUBLIC RIGHT-OF-WAY.
- THE CONTRACTOR SHALL OBTAIN AND SUBMIT AN APPROVED TRAFFIC CONTROL PLAN PRIOR TO BEGINNING CONSTRUCTION. THE PLAN SHALL BE APPROVED BY THE PUBLIC WORKS DIRECTOR.
- ALL EROSION CONTROL BEST MANAGEMENT PRACTICES (BMPs) SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE EROSION CONTROL PLAN AND EROSION CONTROL DETAILS. PRIOR TO START OF ANY CONSTRUCTION OR LAND DISTURBING ACTIVITY.
- THE CONTRACTOR SHALL OBTAIN ALL OFFSITE CONSTRUCTION EASEMENTS PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL VERIFY THAT ALL OFFSITE UTILITIES EASEMENTS HAVE BEEN OBTAINED BY THE OWNER PRIOR TO THE COMMENCEMENT OF ANY OFFSITE CONSTRUCTION.
- THE CONTRACTOR IS TO VERIFY AND REPORT ANY DISCREPANCIES IMMEDIATELY TO THE ENGINEER. ITEMS TO VERIFY INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING:
  - INVERT AND TOP ELEVATIONS OF EXISTING STORM SEWERS
  - CENTERLINE AND TOP OF CURB ELEVATIONS
- WATER QUALITY DEVICES WILL BE INSTALLED AND FUNCTIONING PRIOR TO COMMENCING WITH INSTALLATION OF PAVEMENT FOR ALL AREAS DRAINING INTO THE WATER QUALITY SYSTEM. VEGETATION IN BIO-FILTRATION SHALE AND POND SYSTEMS SHALL BE ESTABLISHED AND MECHANICAL DEVICES AND FILTER MEDIA SHALL BE INSTALLED. SHALES AND FILTER STRIPS WILL BE COVERED WITH AN APPROVED SEED MIX. PER THE WESTERN WASHINGTON MANUAL, TURF IS ALLOWED FOR VEGETATED FILTERS PROVIDED THE TURF AREA IS OVERSEEDS WITH THE EQUIVALENT OF GRASS SEED MIX.
- ALL CATCH BASINS SHALL BE STENOLED, "PROTECT STREAMS" OR "PROTECT GROUNDWATER."
- ROOF DOWNSPOUT RUNOFF MUST BE RETAINED ON EACH SPECIFIC SITE. DOWNSPOUTS SHALL NOT DRAIN TO THE STREET OR ANY ADJACENT PROPERTIES UNLESS SPECIFIC APPROVAL HAS BEEN OBTAINED.
- THE CONTRACTOR WILL PROVIDE A TELEVISION REPORT, TAFE, AND TABLET AS-BUILT OF ALL PUBLIC STORM MAINS AND LATERALS PRIOR TO PAVING. THIS INFORMATION WILL BE SUBMITTED TO THE CITY INSPECTOR FOR REVIEW AND ACCEPTANCE OF THE TV INSPECTION WILL BE BASED UPON MANUFACTURING AND INSTALLATION DEFECTS, AS WELL AS DEBRIS IN THE LINES. FINAL ACCEPTANCE AND CONSTRUCTION OF STORM SEWERS ARE SUBJECT TO INSPECTION AND TEST IN ACCORDANCE WITH SECTIONS 1-05.11, 1-05.12, AND 7-04.3 OF THE STANDARD SPECIFICATIONS.

	<b>GENERAL NOTES FOR STORM SEWERS</b>				
APPROVED	REVISIONS	DATE	DRAWN	DESIGNED	D-01
<i>Boyd Stepp</i>		12/16/13			
PUBLIC WORKS DIRECTOR	DATE				

### STANDARD CATCH BASIN

- LATERALS WILL BE CONSTRUCTED TO ENTER THE BASIN PERPENDICULAR TO THE BASIN WALL. THE LATERAL WILL ENTER ONLY AT THE FRONT OR SIDE OF THE BASIN WITH NO LATERALS ALLOWED TO ENTER THE CATCH BASIN AT THE CORNERS. IF NEEDED, A BEND MAY BE USED AS THE FIRST SECTION OF PIPE OUTSIDE THE BASIN WALL. THE MAXIMUM BEND ALLOWED IS 45 DEGREES.
- ALL REINFORCED STEEL SHALL HAVE A 1-1/2" CLEAR COVER UNLESS OTHERWISE NOTED, AND SHALL BE GRADE 40 OR GRADE 60 (ASTM A-615).
- ANY PROTRUDING ENDS OF PIPES SHALL BE TRIMMED FLUSH WITH THE INSIDE WALLS AND GROUDED.
- THE METAL FRAME AND GRATE SHALL BE SET TO A SLOPE TO CONFORM TO THE PARTICULAR DRAINAGE AREA (SEE DETAIL D-00).
- ELBOW SECTION SHALL BE REMOVABLE FOR MAINTENANCE PURPOSES USING A BELL AND SPIGOT JOINT.
- ALL PRECAST OR CAST-IN-PLACE CONCRETE SHALL BE CLASS 4000.

	<b>STANDARD CATCH BASIN</b>				
APPROVED	REVISIONS	DATE	DRAWN	DESIGNED	D-02
<i>Boyd Stepp</i>		12/16/13			
PUBLIC WORKS DIRECTOR	DATE				

### CURB INLET

- LATERALS WILL BE CONSTRUCTED TO ENTER THE BASIN PERPENDICULAR TO THE BASIN WALL. THE LATERAL WILL ENTER ONLY AT THE FRONT OR SIDE OF THE BASIN WITH NO LATERALS ALLOWED TO ENTER THE CATCH BASIN AT THE CORNERS. IF NEEDED, A BEND MAY BE USED AS THE FIRST SECTION OF PIPE OUTSIDE THE BASIN WALL. THE MAXIMUM BEND ALLOWED IS 45 DEGREES.
- ALL REINFORCED STEEL SHALL HAVE A 1-1/2" CLEAR COVER UNLESS OTHERWISE NOTED, AND SHALL BE GRADE 40 OR GRADE 60 (ASTM A-615).
- ANY PROTRUDING ENDS OF PIPES SHALL BE TRIMMED FLUSH WITH THE INSIDE WALLS AND GROUDED.
- THE METAL FRAME AND GRATE SHALL BE SET TO A SLOPE TO CONFORM TO THE PARTICULAR DRAINAGE AREA (SEE DETAIL D-00).
- ELBOW SECTION SHALL BE REMOVABLE FOR MAINTENANCE PURPOSES USING A BELL AND SPIGOT JOINT.
- ALL PRECAST OR CAST-IN-PLACE CONCRETE SHALL BE CLASS 4000.

	<b>CURB INLET</b>				
APPROVED	REVISIONS	DATE	DRAWN	DESIGNED	D-03
<i>Boyd Stepp</i>		12/16/13			
PUBLIC WORKS DIRECTOR	DATE				

### G-2 CATCH BASIN

- LATERALS WILL BE CONSTRUCTED TO ENTER THE BASIN PERPENDICULAR TO THE BASIN WALL. THE LATERAL WILL ENTER ONLY AT THE FRONT OR SIDE OF THE BASIN WITH NO LATERALS ALLOWED TO ENTER THE CATCH BASIN AT THE CORNERS. IF NEEDED, A BEND MAY BE USED AS THE FIRST SECTION OF PIPE OUTSIDE THE BASIN WALL. THE MAXIMUM BEND ALLOWED IS 45 DEGREES.
- ALL REINFORCED STEEL SHALL HAVE A 1-1/2" CLEAR COVER UNLESS OTHERWISE NOTED, AND SHALL BE GRADE 40 OR GRADE 60 (ASTM A-615).
- ANY PROTRUDING ENDS OF PIPES SHALL BE TRIMMED FLUSH WITH THE INSIDE WALLS AND GROUDED.
- THE METAL FRAME AND GRATE SHALL BE SET TO A SLOPE TO CONFORM TO THE PARTICULAR DRAINAGE AREA (SEE DETAIL D-00).
- ELBOW SECTION SHALL BE REMOVABLE FOR MAINTENANCE PURPOSES USING A BELL AND SPIGOT JOINT.

	<b>G-2 CATCH BASIN</b>				
APPROVED	REVISIONS	DATE	DRAWN	DESIGNED	D-05
<i>Boyd Stepp</i>		12/16/13			
PUBLIC WORKS DIRECTOR	DATE				

### SLOPED FIELD INLET

- ALL PRECAST SECTIONS SHALL CONFORM TO THE REQUIREMENTS OF ASTM C-478.
- ALL POURED IN PLACE CONCRETE SHALL HAVE A 28 DAY STRENGTH OF 4,000 P.S.I. AND 2" TO 4" SLUMP.
- STEEL TO BE NEW STRUCTURAL STEEL.
- USE SLOPED OR BOX FRAME AND GRATE AS REQUIRED BY CITY.

	<b>SLOPED FIELD INLET</b>				
APPROVED	REVISIONS	DATE	DRAWN	DESIGNED	D-06
<i>Boyd Stepp</i>		12/16/13			
PUBLIC WORKS DIRECTOR	DATE				

### MANHOLE

- ALL PRECAST SECTIONS SHALL CONFORM TO REQUIREMENTS OF A.S.T.M. C415.
- BASE CONCRETE SHALL BE 3000 P.S.I., 2"-4" SLUMP. FLOW LINES AND INSIDE SURFACES SHALL BE FINISHED SMOOTH AND UNIFORM AT TIME OF POUR.
- JOINTS SHALL BE CONSTRUCTED SO AS TO BE WATER-TIGHT. KENT-SEAL NO. 2 OR APPROVED EQUAL SHALL BE USED ON TONGUE AND GROOVE SECTIONS. REINFORCED JOINTS MAY BE SUBSTITUTED ON BELL AND SPIGOT SECTIONS. ALL JOINTS SHALL BE GROUTED WITH PORTLAND CEMENT GROUT AND STROCK EVEN WITH THE WALL.
- MANHOLES UNDER 6 FEET IN DEPTH FROM FIN TO SLEAF SHALL HAVE A TOP SLAB IN LIEU OF COLE.
- ALLOWABLE DISTANCE BETWEEN PIPE KNOCKOUTS IS 8 INCHES.

	<b>MANHOLE</b>				
APPROVED	REVISIONS	DATE	DRAWN	DESIGNED	D-10
<i>Boyd Stepp</i>		12/16/13			
PUBLIC WORKS DIRECTOR	DATE				

### STORM SEWER CLEANOUT

- VALVE BOX SHALL BE FORT VANCOUVER PATTERN NO. 910 CAST IRON OR APPROVED EQUAL.
- MATERIAL TO BE GRAY CAST IRON CONFORMING TO ASTM A-46 CLASS 30.
- LD TO HAVE "C" CAST IN OR STAMPED ON. "M" CASTING NOT ALLOWED.
- TOLERANCE = 1/8".
- SEWER CLEANOUT TO BE 8" DIAMETER.

	<b>STORM SEWER CLEANOUT</b>				
APPROVED	REVISIONS	DATE	DRAWN	DESIGNED	D-13
<i>Boyd Stepp</i>		12/16/13			
PUBLIC WORKS DIRECTOR	DATE				

### MANHOLE COVER AND FRAME

- DEPTH OF BEDDING MATERIAL BELOW PIPE
- 27" & SMALLER 4"
- LARGER THAN 27" 8"

	<b>MANHOLE COVER AND FRAME</b>				
APPROVED	REVISIONS	DATE	DRAWN	DESIGNED	D-14
<i>Boyd Stepp</i>		12/16/13			
PUBLIC WORKS DIRECTOR	DATE				

### PIPE BEDDING

- PROVIDE UNIFORM SUPPORT UNDER DRAINED, HAND TAMP UNDER HAUNCHES.
- BEDDING MATERIALS SHALL CONFORM TO SECTION 8-03.12(3) OF THE STANDARD SPECIFICATIONS.
- FOR ROCK AND OTHER INCOMPRESSIBLE MATERIALS, THE TRENCH SHALL BE OVER ENGRAVATED A MINIMUM OF 6 INCHES AND REFILLED WITH GRANULAR MATERIAL AS DIRECTED BY THE ENGINEER.
- BEDDING AND BACKFILL MATERIALS IN THE PIPE ZONE SHALL BE COMPACTED TO 95%.
- NATIVE MATERIAL MAY BE USED IN LIEU OF IMPORTED MATERIAL FOR BEDDING SPECIFIED, PROVIDED THAT THE NATIVE CONFORMS TO SECTION 8-03.12(3) OF THE STANDARD SPECIFICATIONS, AND IS APPROVED BY THE ENGINEER. THE CONTRACTOR SHALL SUBMIT A SAMPLE OF THE MATERIAL TO THE ENGINEER AT LEAST 72 HOURS PRIOR TO USE. THE ENGINEER MAY APPROVE, REJECT OR REQUIRE LAB TESTING OF THE MATERIAL.
- TRENCH WIDTH SHALL NOT EXCEED 1-1/2 TIMES THE ID OF THE PIPE PLUS 18 INCHES AT THE TOP OF THE PIPE ZONE.
- ALL JOINTS SHALL BE AIR-TIGHT FOR NON-PERFORATED PIPE. THE ENGINEER MAY REQUIRE TESTING OF ANY OR ALL JOINTS AND CONNECTIONS.

	<b>PIPE BEDDING</b>				
APPROVED	REVISIONS	DATE	DRAWN	DESIGNED	D-15
<i>Boyd Stepp</i>		12/16/13			
PUBLIC WORKS DIRECTOR	DATE				

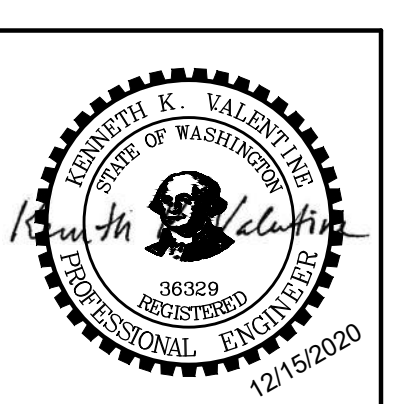
### TRENCH BACKFILL

- FOR PIPE ZONE BEDDING, BACKFILL AND COMPACTION REQUIREMENTS, SEE STANDARD DETAIL D-15.
- COMPACTION PERCENTAGES REFER TO RELATIVE DRY DENSITY AS DETERMINED BY STANDARD PROCTOR (ASTM D 698).
- CONTRACTOR MAY USE UP TO 2-1/2" OF 3/8"-D OR 3/4"-D CRUSHED AGGREGATE IN LIEU OF 1-1/4"-D BASE ROAD UNDER SURFACING FOR LEVELING COURSE.
- ALL EXISTING PAVED SURFACES SHALL BE SAID OUT A MINIMUM OF 4" OUTSIDE OF EDGE OF TRENCH TO PROVIDE A NEAT STRAIGHT EDGE.
- THE EDGES OF ALL EXISTING ASPHALT SURFACES SHALL BE SLOPED INTO A TACK COAT SHALL BE APPLIED PER STD. SECTION 8-04.300.
- ALL JOINTS SHALL BE SEALED WITH 40-4000 AND SANDED.
- ALL BACKFILL SHALL BE MECHANICALLY COMPACTED IN LIFTS WHICH DO NOT EXCEED RATED CAPABILITY OF EQUIPMENT USED, BUT IN NO CASE EXCEEDS 12" LOOSE.
- GRANULAR BACKFILL SHALL MEET REQUIREMENTS OF SECTION 8-30.7(3) UNLESS OTHERWISE SPECIFIED.

	<b>TRENCH BACKFILL</b>				
APPROVED	REVISIONS	DATE	DRAWN	DESIGNED	D-16
<i>Boyd Stepp</i>		12/16/13			
PUBLIC WORKS DIRECTOR	DATE				

STORM DRAINAGE NOTES AND DETAILS  
**ROSE WAY INDUSTRIAL PARK**  
 WOODLAND, WASHINGTON

**Harper Houff Peterson**  
**Righellis Inc.**  
 ENGINEERS & PLANNERS  
 LANDSCAPE ARCHITECTS & SURVEYORS  
 1220 Main Street, Suite 150, Vancouver, WA 98660  
 phone: 360.750.1111 www.hhp.com



DESIGNED:	KVV	DRAWN:	HHPR	CHECKED:	RAY	DATE:	12/15/2020
1	REVISED PER PORT COMMENTS						
SHEET NO. <b>C7.03</b>							
JOB NO. PWL-03							

**CONSTRUCTION SPECIFICATIONS FOR SANITARY SEWER**

ALL MATERIALS AND INSTALLATION OF SANITARY SEWERS SHALL BE IN CONFORMANCE WITH THE MOST CURRENT EDITION OF THE STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION, HEREAFTER REFERRED TO AS THE "STANDARD SPECIFICATIONS", PREPARED BY THE WASHINGTON STATE CHAPTER OF THE AMERICAN PUBLIC WORKS ASSOCIATION (APWA) AND THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION EXCEPT AS NOTED HEREON OR ON THE STANDARD PLANS. WHEREVER THE STANDARD SPECIFICATIONS REFER TO THE OWNER AS EITHER THE "STATE" OR "SECRETARY" OR WHEN REFERENCE IS MADE TO THE DEPARTMENT OF TRANSPORTATION IT SHALL BE UNDERSTOOD THAT THE STANDARD SPECIFICATIONS SHOULD READ THE "CITY".

ALL SANITARY SEWER CONSTRUCTION IS SUBJECT TO INSPECTION AND APPROVAL BY THE CITY OF WOODLAND PUBLIC WORKS DEPARTMENT. THE CONTRACTOR SHALL NOTIFY THE CITY AT (509) 225-7999 AT LEAST 48-HOURS PRIOR TO THE START OF CONSTRUCTION. A PRE-CONSTRUCTION CONFERENCE MAY BE REQUIRED.

THE CONTRACTOR IS REQUIRED TO NOTIFY ALL UTILITIES 48 HOURS PRIOR TO COMMENCEMENT OF WORK. THE CONTRACTOR MUST CONTACT THE UNDERGROUND UTILITY NOTIFICATION CENTER "CALL BEFORE YOU DIG" AT (800) 424-5555 OR 7811.

FINAL ACCEPTANCE OF SANITARY SEWERS ARE SUBJECT TO SECTIONS 1-05.11, 1-05.12, 7-17.3(2)(c), 7-17.3(2)(f), 7-17.3(2)(g) AND 7-17.3(2)(h) OF THE APWA STANDARD SPECIFICATIONS. TELEVISION INSPECTION SHALL INCLUDE VIDEO OF ALL MANHOLES IN ADDITION TO THE "PIPE". THE CONTRACTOR SHALL NOTIFY ALL WORK ZONE UNDER CITY CONTRACT FOR A PERIOD OF TWO (2) YEARS AS PER OF THE CITY OF WOODLAND GENERAL PROVISIONS FOR MUNICIPAL CONSTRUCTION.

LOCAL VARIATIONS IN SLOPE (I.E. "BELIEFS") MUST BE NO MORE THAN 1/2" MAXIMUM. VARIATIONS IN DEGREE OF THESE TOLERANCES MUST BE REPAIRED AT THE CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE CITY.

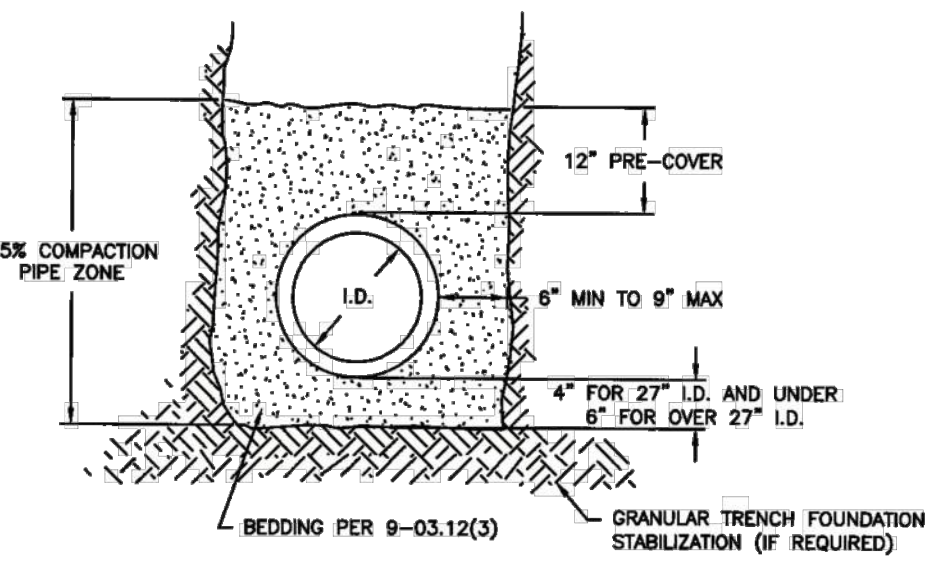
ALL PIPE AND FITTINGS SHALL CONFORM TO THE FOLLOWING:  
 A. POLYPROPYLENE (PP) SINKER PIPE 12" DIAMETER OR LESS SHALL CONFORM TO ASTM D3034, SDR 35. IT SHALL HAVE A MINIMUM PIPE STIFFNESS OF 48 PSI. PVC PIPE 18" DIAMETER SHALL CONFORM TO ASTM F 676. ALL PVC PIPE SHALL HAVE AN INTERNAL BELL GASKETED JOINT WITH ELASTOMERIC GASKET AND SHALL BE FURNISHED IN 12-1/2' FOOT LAYING LENGTHS.  
 B. DUCTILE IRON (DI) PIPE SHALL CONFORM TO AASHTO M27.51 OR AWWA C151, WITH PUSH-ON JOINTS, CLASS 52, UNLESS OTHERWISE NOTED.

INSTALLATION OF PIPE AND MANHOLES SHALL CONFORM TO THE FOLLOWING:  
 A. PIPE SHALL BE INSTALLED IN CONFORMANCE WITH PIPE DETAIL S-02 AND TRENCHING DETAIL S-03.  
 B. MANHOLES SHALL CONFORM WITH STANDARD DETAILS S-07 THROUGH S-14.

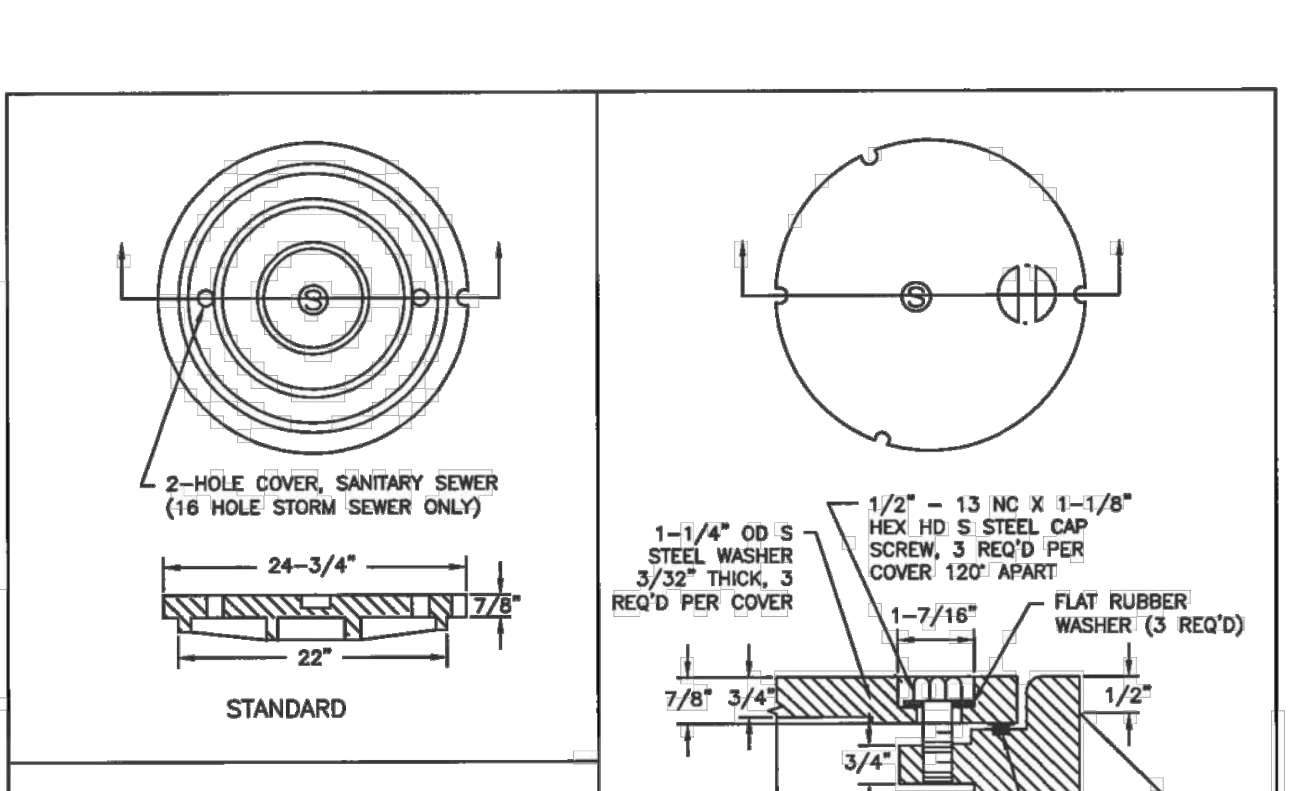
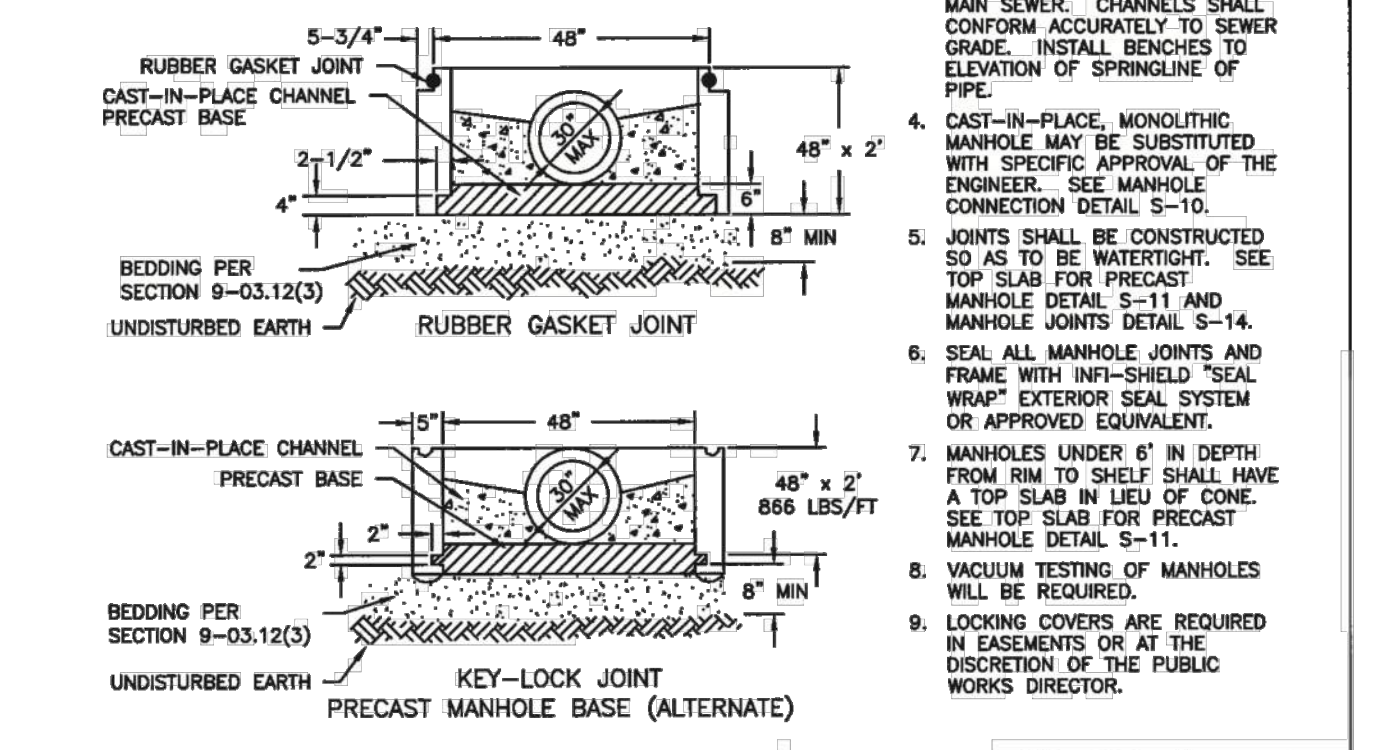
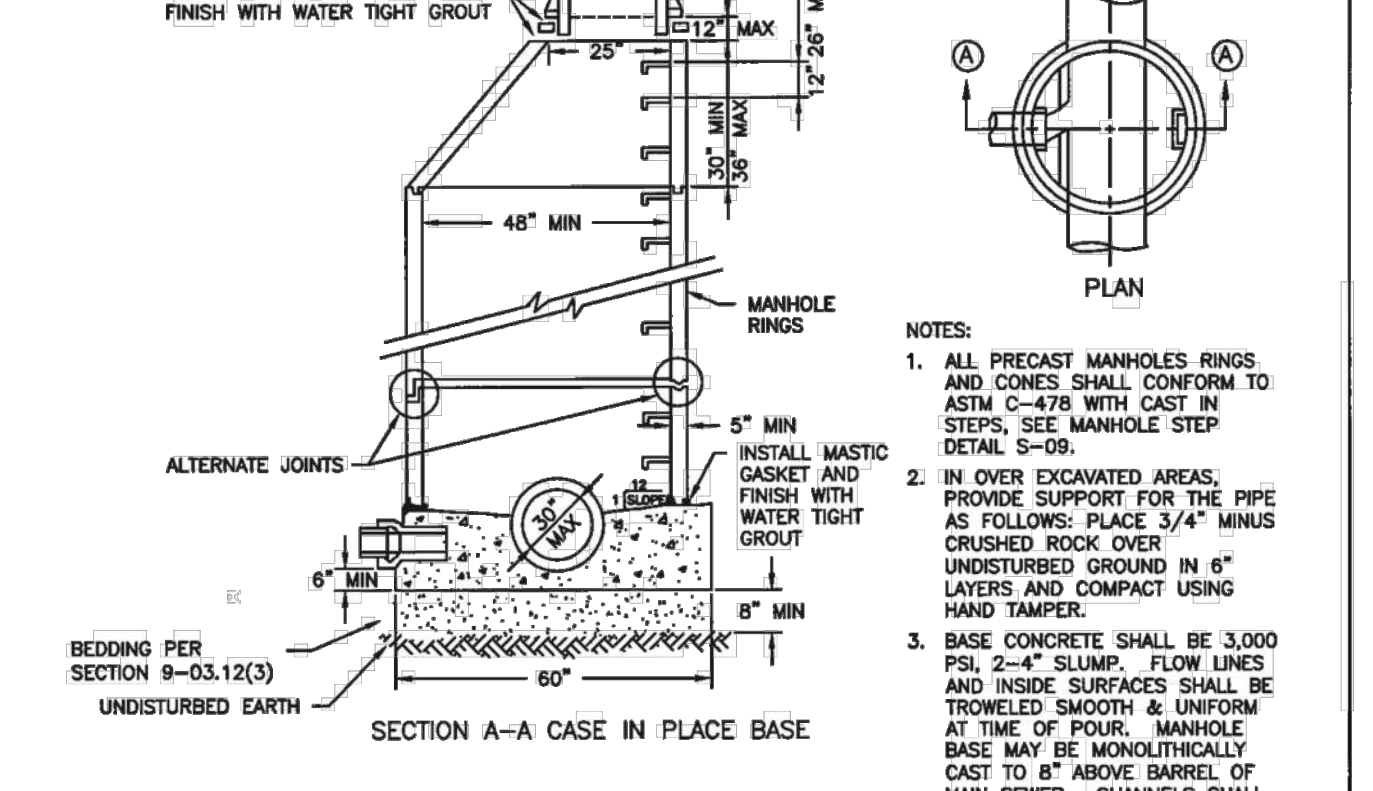
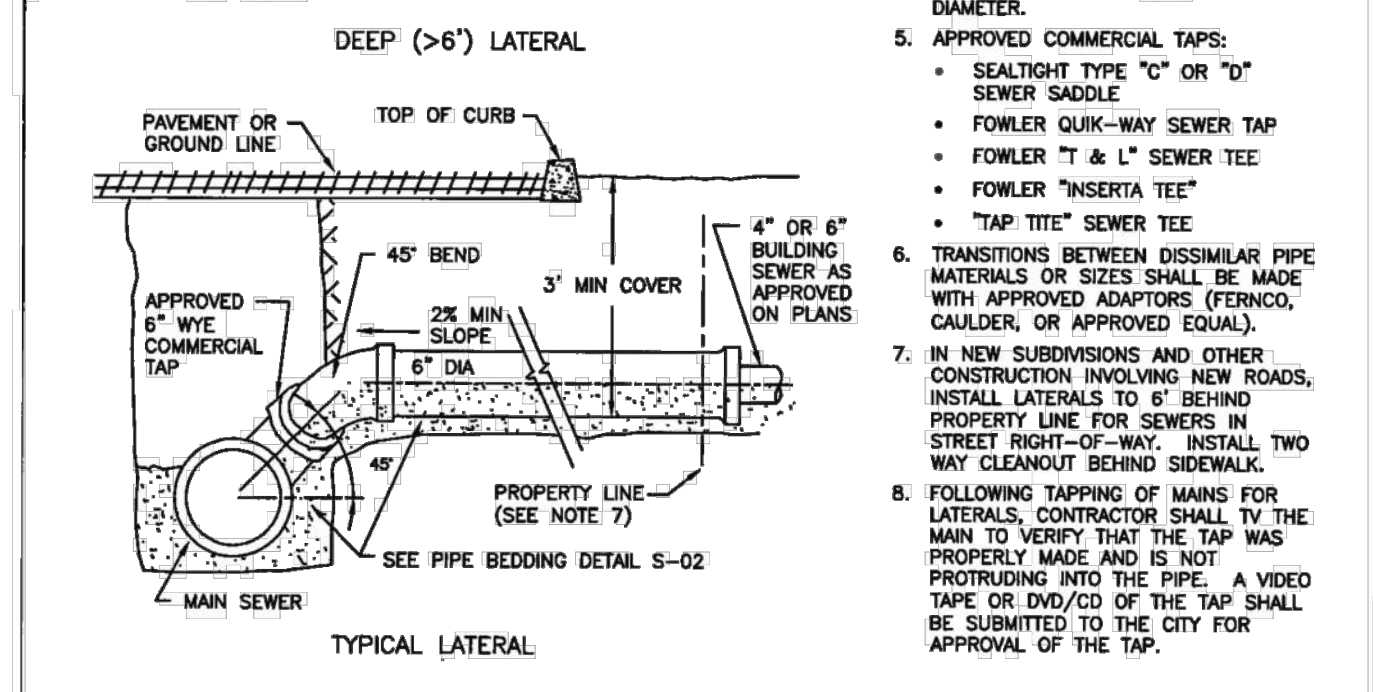
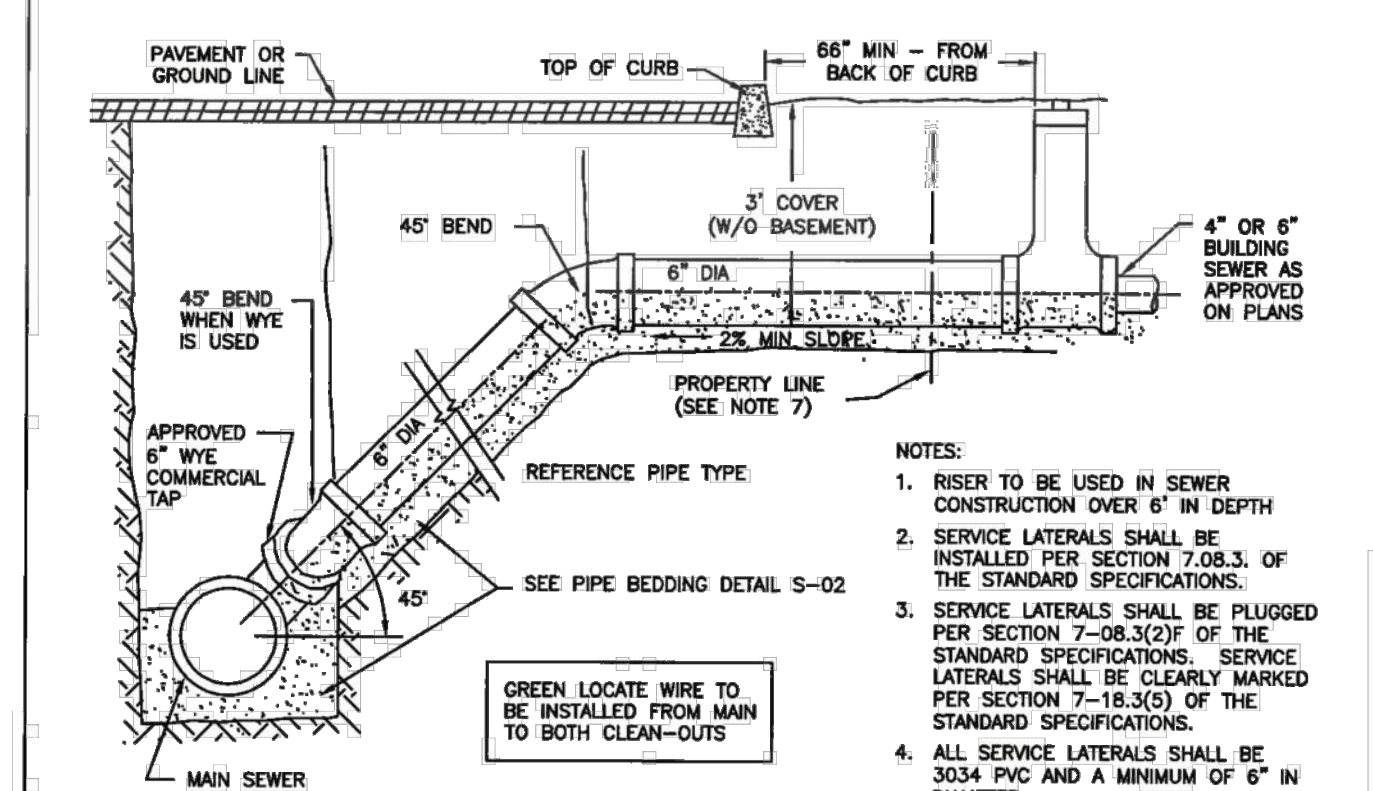
MANHOLES, CLEANOUTS, SERVICE LATERAL CONNECTIONS, TRENCH EXCAVATION, PIPE BEDDING AND STREET RESTORATION, AND APPURTENANCES SHALL CONFORM TO THE DETAILS SHOWN ON THE STANDARD PLANS. ALL OTHER CONSTRUCTION SHALL CONFORM TO THE STANDARD DETAILS CONTAINED IN THE STANDARD PLANS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION.

THE CONTRACTOR SHALL COMPLY WITH THE PROVISIONS OF ALL PERMITS ISSUED OR EASEMENTS GRANTED TO THE CITY IN CONNECTION WITH THE CONSTRUCTION OF SANITARY SEWERS. THE CONTRACTOR SHALL OBTAIN A RIGHT-OF-WAY PERMIT FOR WORK WITHIN THE PUBLIC RIGHT-OF-WAY.

THE CONTRACTOR SHALL SUBMIT AN APPROVED TRAFFIC CONTROL PLAN. APPROVAL SHALL BE OBTAINED PRIOR TO BEGINNING CONSTRUCTION.



- NOTES:
- WHERE DIRECTED BY THE ENGINEER GRANULAR TRENCH FOUNDATION STABILIZATION SHALL BE PLACED PRIOR TO PLACEMENT OF THE BEDDING. SIZE AND DEPTH ARE DEPENDENT ON SOIL CONDITIONS.
  - BEDDING AND BACKFILL MATERIALS IN THE PIPE ZONE SHALL BE COMPACTED AS SPECIFIED PRIOR TO BACKFILLING THE REMAINDER OF THE TRENCH.
  - FOR ROCK AND OTHER INCOMPRESSIBLE MATERIALS, THE TRENCH SHALL BE OVER-EXCAVATED A MINIMUM OF 6" AND FILLED WITH GRANULAR MATERIALS AS DIRECTED BY THE ENGINEER.
  - BACKFILL AND COMPACTION ABOVE THE PIPE ZONE SHALL BE AS SHOWN IN TRENCHING DETAIL S-03.
  - PVC PIPE INSTALLATION SHALL CONFORM TO UNIBELL PLASTIC PIPE ASSOCIATION STANDARD SPEC. LHM-5 (LATEST EDITION) EXCEPT AS NOTED.
  - FINAL INSTALLATION TO BE TESTED PER SECTION 7-17.3(2)(g) OF THE STANDARD SPECIFICATIONS.
  - ALTERNATE PRE-COVER MATERIALS ARE ALLOWABLE FROM PIPE CENTERLINE TO ONE FOOT ABOVE THE TOP OF PIPE. ALTERNATE PRE-COVER MATERIALS MUST BE PRE-APPROVED BY THE INSPECTOR AND MAY BE SAND, CRUSHED SCREENING, GRAVEL, OR OTHER CLEAN GRANULAR MATERIAL CONTAINING NO ROCK LARGER THAN 1-1/4" IN LENGTH.
  - APPROVAL FOR ALTERNATE MATERIALS WILL BE GRANTED UPON CONFIRMATION BY TEST OF ITS COMPLIANCE WITH THESE REQUIREMENTS. SUBMIT 50 LB SAMPLE FOR TESTING TO THE CITY INSPECTOR AND OBTAIN MATERIAL PRIOR TO STARTING PIPE INSTALLATION WORK. THE TEST REQUIRES A MINIMUM OF FIVE BUSINESS DAYS TO COMPLETE.
  - TRENCH WIDTH SHALL NOT EXCEED ONE AND ONE-HALF THE INSIDE DIAMETER OF THE PIPE PLUS 18" AT THE TOP OF THE PIPE ZONE. ANY SUBSEQUENCE OF SURROUNDING PAVEMENT DUE TO TRENCHING SHALL BE REPAIRED TO ORIGINAL FINISH OR TRENCH LIMITS AND REPAIRED TO SATISFACTION OF THE CITY OF WOODLAND.
  - NATIVE MATERIAL MAY BE USED, OUTSIDE OF THE ROAD PRISM FOR DUCTILE IRON IN LIEU OF IMPROVED MATERIAL FOR BEDDING SPECIFIED, PROVIDED THAT THE NATIVE MATERIAL CONFORMS TO SECTION 9-03.1(3) OF THE STANDARD SPECIFICATIONS, AND AS APPROVED BY THE CITY OF WOODLAND. THE CONTRACTOR SHALL SUBMIT A SAMPLE OF THE NATIVE MATERIAL TO THE CITY OF WOODLAND AT LEAST 72-HOURS PRIOR TO USE. THE CITY MAY APPROVE, REJECT, OR REQUIRE LABORATORY TESTING OF THE MATERIAL.



- NOTES:
- ALL PRECAST MANHOLE RINGS AND COVERS SHALL CONFORM TO ASTM C-476 WITH CAST IN UNDISTURBED EARTH. SEE MANHOLE DETAIL S-09.
  - IN OVER EXCAVATED AREAS PROVIDE SUPPORT FOR THE PIPE AS FOLLOWS: PLACE 3/4" MASTIC CRUSHED ROCK OVER UNDISTURBED GROUND IN 6" LAYERS AND COMPACT USING HAND TAMPER.
  - BASE CONCRETE SHALL BE 3,000 PSI 2-4" SLUMP. FLOW LINES AND JOINT SURFACES SHALL BE FINISHED SMOOTH & UNIFORM TO LINE OF FORM. MANHOLE BASES MAY BE MANUFACTURED TO CAST TO 6" ABOVE BARREL OF MAIN SERVICE. CHANNELS SHALL CONFORM ACCORDING TO SEWER GRADE. INSTALL BENCHES TO ELEVATION OF SPRINGLINE OF PIPE.
  - CAST-IN-PLACE MONOLITHIC MANHOLE MAY BE SUBSTITUTED WITH SEWER APPROVAL OF THE ENGINEER. SEE MANHOLE CONNECTION DETAIL S-10.
  - JOINTS SHALL BE CONSTRUCTED TO BE TO WATER TIGHT. SEE TOP SLAB FOR PRECAST MANHOLE DETAIL S-11 AND MANHOLE JOINTS DETAIL S-14.
  - SEAL ALL MANHOLE JOINTS AND FRAMES WITH INFILTED SEAL WRAP EXTERIOR SEAL SYSTEM OR APPROVED EQUIVALENT.
  - MANHOLES UNDER 6" IN DEPTH FROM RIM TO SHOULDER SHALL HAVE A TOP SLAB IN LIEU OF CONE. INSTALL DETAIL S-11 FOR PRECAST MANHOLE DETAIL S-11.
  - WINDUW TESTING OF MANHOLES WILL BE REQUIRED.
  - LOCKING COVERS ARE REQUIRED AT EASEMENTS OR AT THE DISCRETION OF THE PUBLIC WORKS DIRECTOR.

- NOTES:
- COVER & FRAME TO BE MACHINED TO A TRUE BEARING ALL ROUND.
  - MATERIAL SHALL BE OF GRAY CAST IRON, ASTM A-48, CLASS 30.

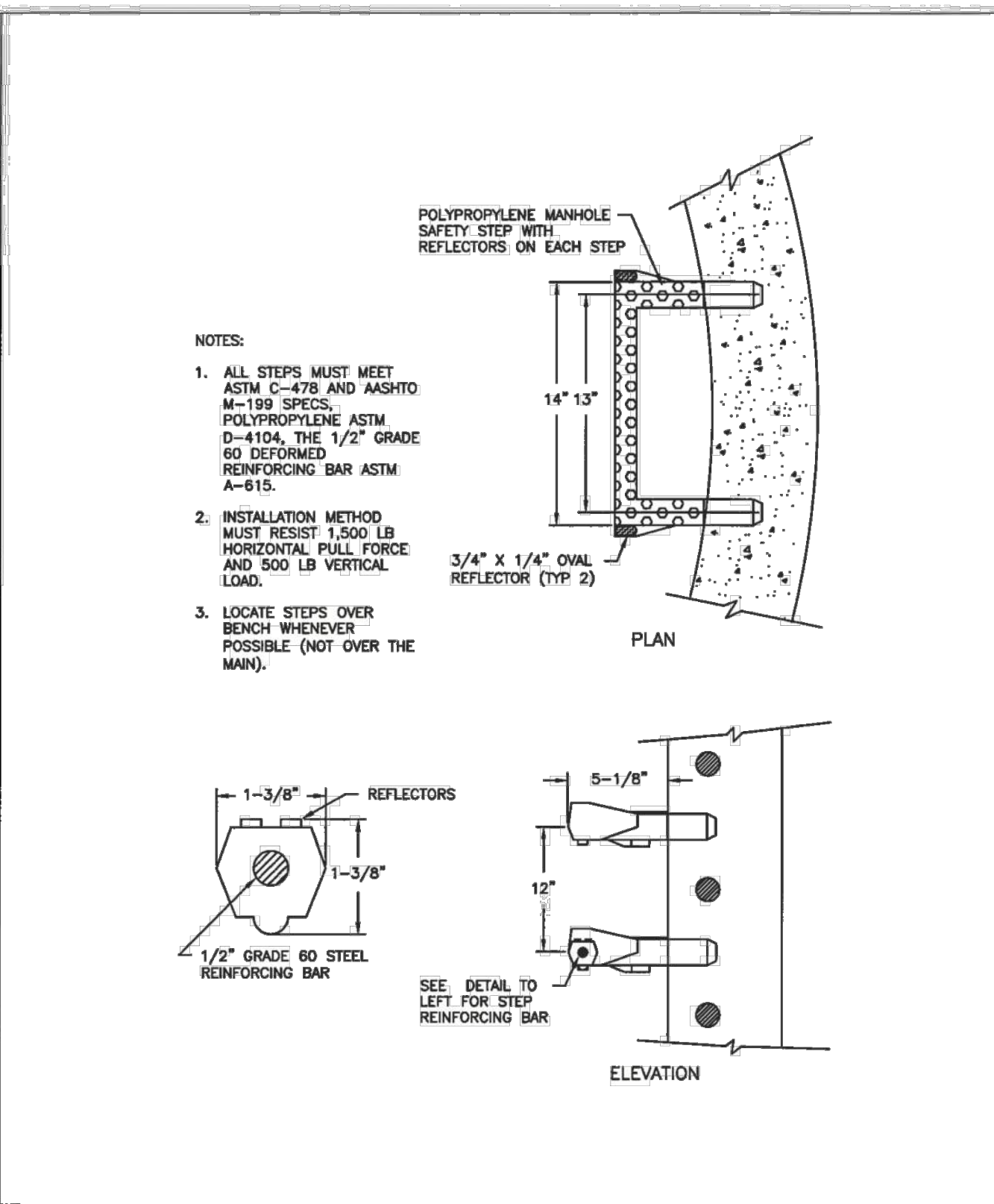
GENERAL NOTES FOR SANITARY SEWER					
APPROVED	REVISIONS	DATE	DRAWN	DESIGNED	
					S-01
<i>Barb Stepp</i>		3/14/14			
PUBLIC WORKS DIRECTOR	DATE				

PIPE BEDDING					
APPROVED	REVISIONS	DATE	DRAWN	DESIGNED	
					S-02
<i>Barb Stepp</i>		3/14/14			
PUBLIC WORKS DIRECTOR	DATE				

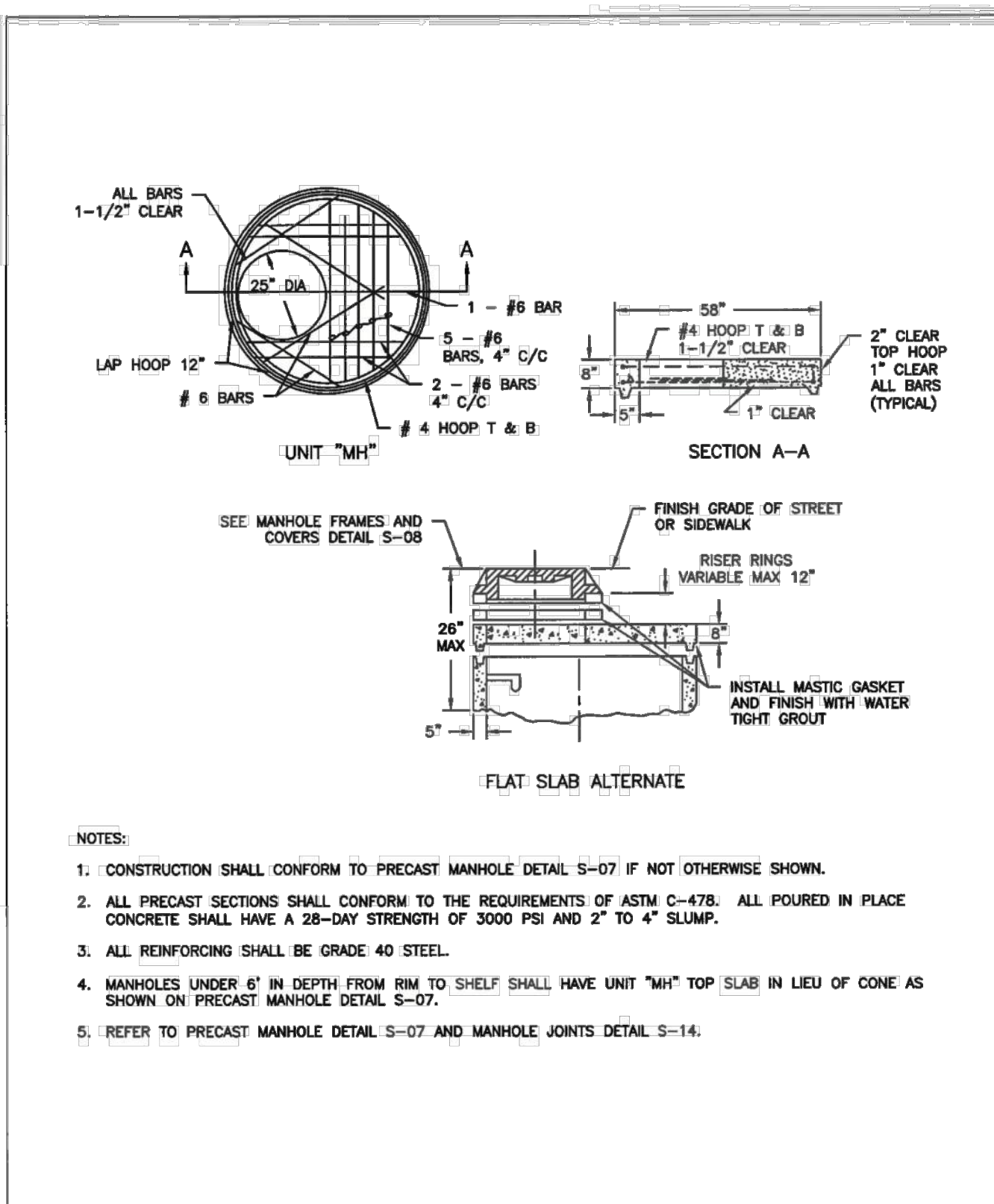
SERVICE LATERAL CONNECTIONS					
APPROVED	REVISIONS	DATE	DRAWN	DESIGNED	
					S-04
<i>Barb Stepp</i>		3/14/14			
PUBLIC WORKS DIRECTOR	DATE				

PRECAST MANHOLE					
APPROVED	REVISIONS	DATE	DRAWN	DESIGNED	
					S-07
<i>Barb Stepp</i>		3/14/14			
PUBLIC WORKS DIRECTOR	DATE				

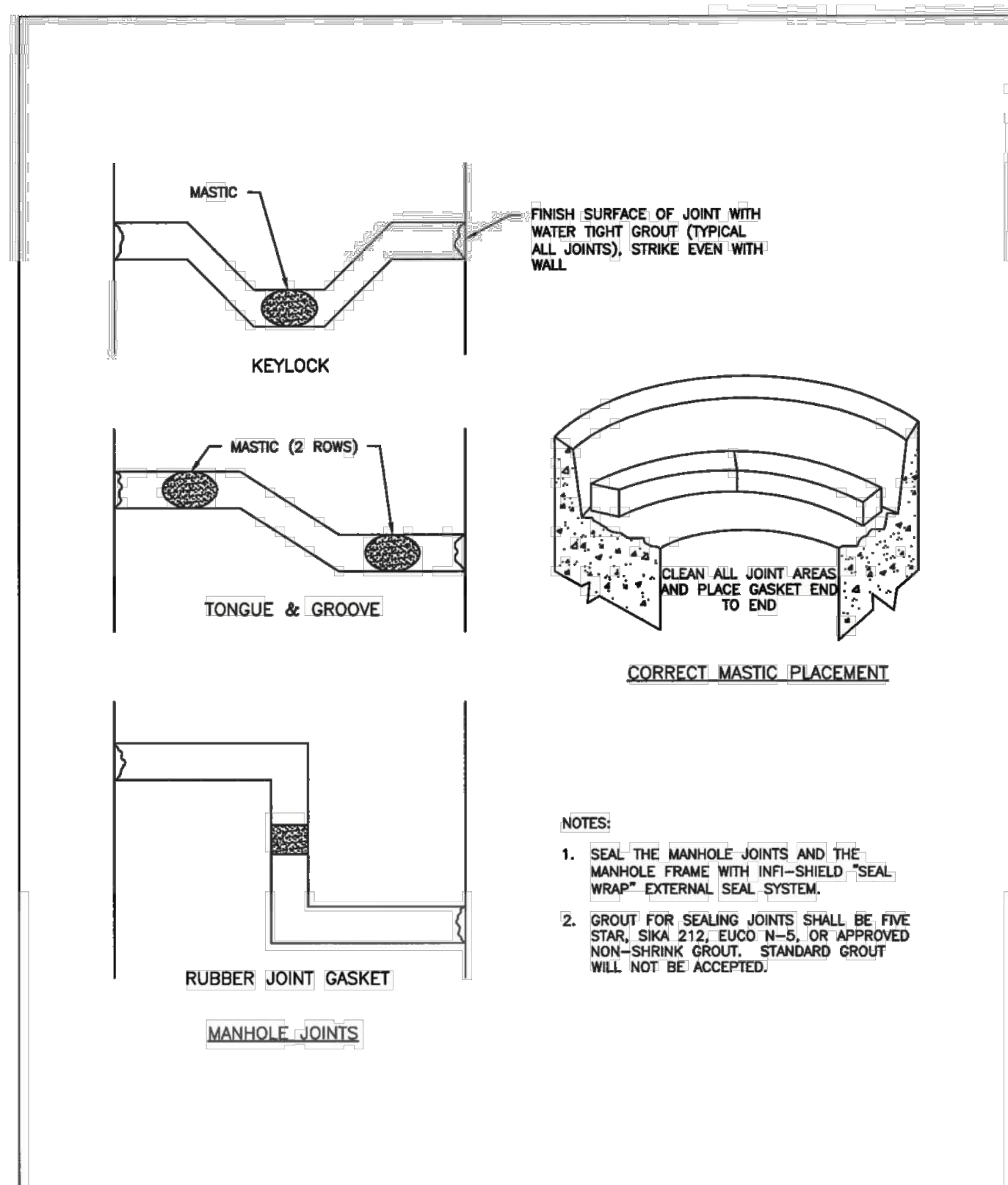
MANHOLE FRAMES AND COVERS					
APPROVED	REVISIONS	DATE	DRAWN	DESIGNED	
					S-08
<i>Barb Stepp</i>		3/14/14			
PUBLIC WORKS DIRECTOR	DATE				



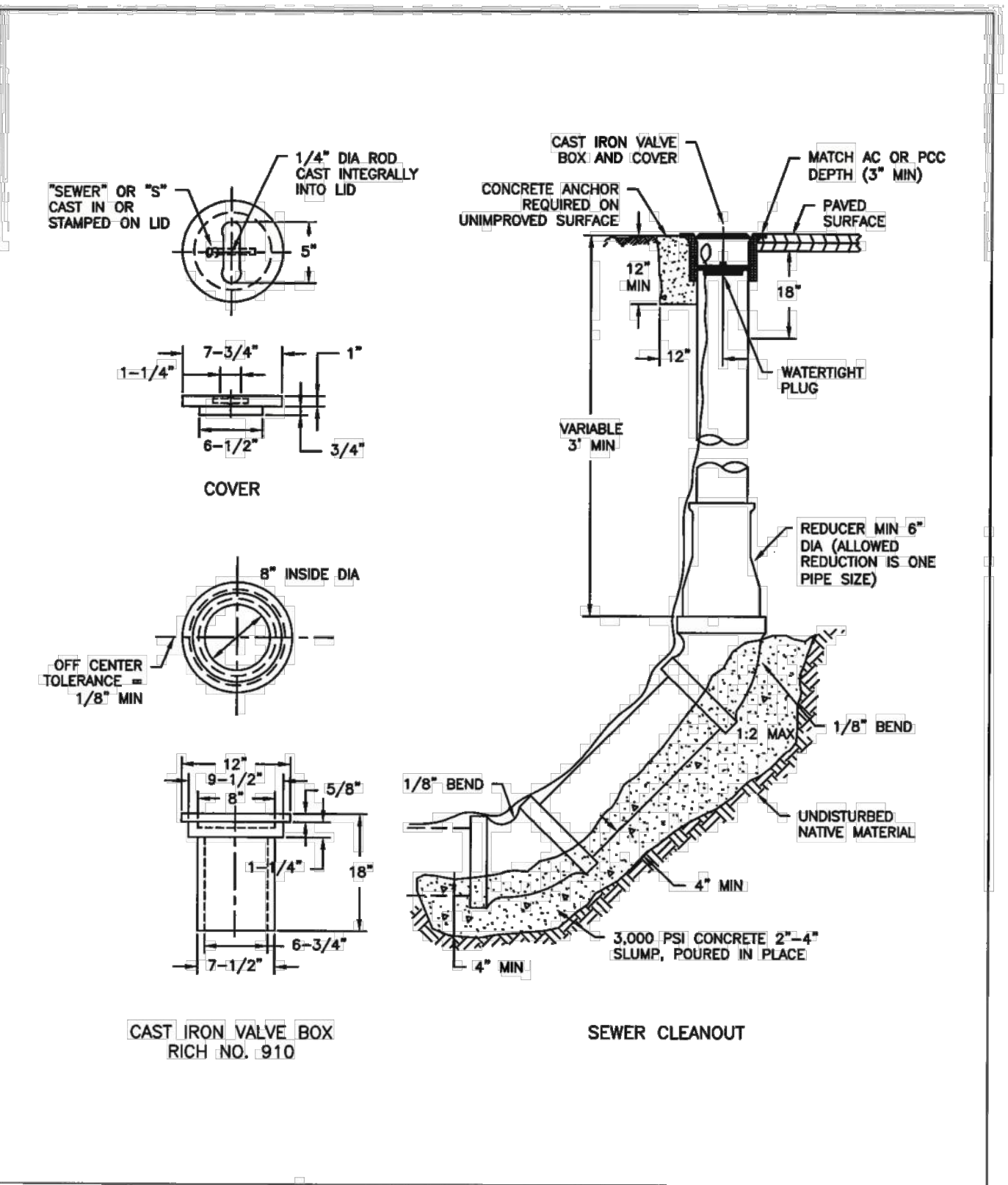
MANHOLE STEPS					
APPROVED	REVISIONS	DATE	DRAWN	DESIGNED	
					S-09
<i>Barb Stepp</i>		3/14/14			
PUBLIC WORKS DIRECTOR	DATE				



TOP SLAB FOR PRECAST MANHOLE					
APPROVED	REVISIONS	DATE	DRAWN	DESIGNED	
					S-11
<i>Barb Stepp</i>		3/14/14			
PUBLIC WORKS DIRECTOR	DATE				



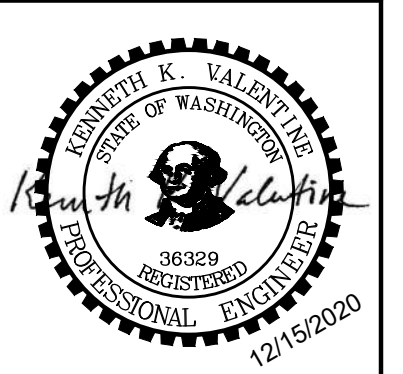
MANHOLE JOINTS					
APPROVED	REVISIONS	DATE	DRAWN	DESIGNED	
					S-14
<i>Barb Stepp</i>		3/14/14			
PUBLIC WORKS DIRECTOR	DATE				



SEWER CLEANOUT					
APPROVED	REVISIONS	DATE	DRAWN	DESIGNED	
					S-16
<i>Barb Stepp</i>		3/14/14			
PUBLIC WORKS DIRECTOR	DATE				

SANITARY SEWER NOTES AND DETAILS  
 ROSE WAY INDUSTRIAL PARK  
 WOODLAND, WASHINGTON

**Harper Houff Peterson Righellis Inc.**  
 ENGINEERS & PLANNERS  
 LANDSCAPE ARCHITECTS & SURVEYORS  
 1220 Main Street, Suite 150, Vancouver, WA 98660  
 phone: 360.750.1111 www.hhpri.com



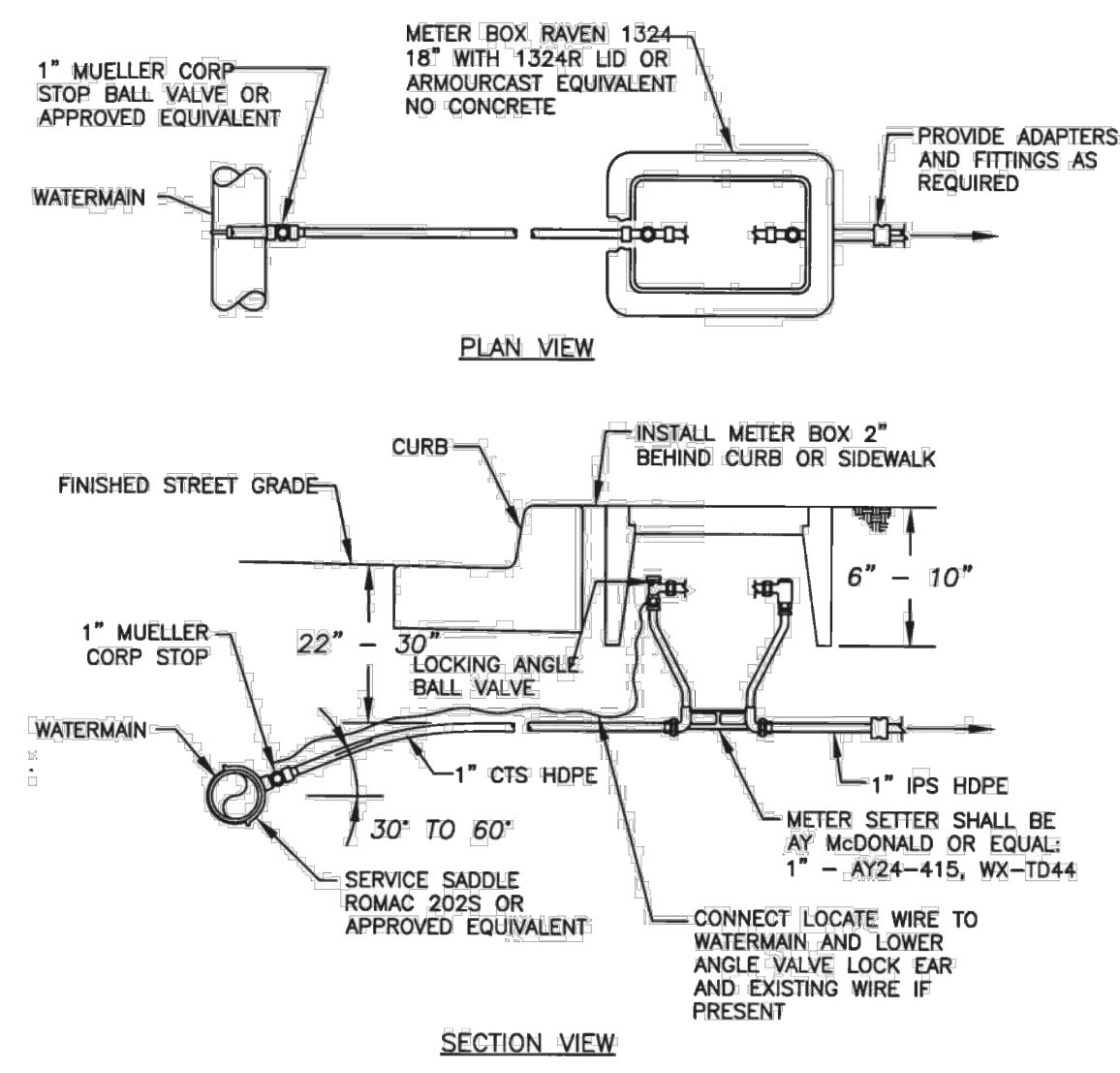
DESIGNED:	KKV	DATE:	12/15/2020
DRAWN:	HHPR	CHECKED:	RAV
NO.:		DESCRIPTION:	
R E V I S I O N S			
SHEET NO.	C7.04		
JOB NO.	PWL-03		

GENERAL NOTES FOR WATER MAIN INSTALLATION

1. ALL WORKMANSHIP AND MATERIAL SHALL BE IN ACCORDANCE WITH THE WSDOT/APWA STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION HEREIN IDENTIFIED AS THE STANDARD SPECIFICATIONS AND APWA SPECIFICATIONS, EXCEPT AS MODIFIED BELOW OR BY CITY OF WOODLAND STANDARD DETAILS.
2. A PRE-CONSTRUCTION MEETING SHALL BE HELD WITH THE CITY OF WOODLAND AT LEAST 48-HOURS PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE CONSTRUCTION SCHEDULES AND TRAFFIC CONTROL PLANS IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS. PROPOSED "EQUIVALENTS" MUST BE SUBMITTED TO THE CITY OF WOODLAND FOR APPROVAL.
3. THE CONTRACTOR SHALL NOTIFY THE CITY PUBLIC WORKS DEPARTMENT AT (360) 225-7999, 48-HOURS PRIOR TO LIVE TAPS OR OTHER CONNECTIONS TO EXISTING WATERMANS. WHERE CONNECTIONS REQUIRE SHUT-DOWN OF SERVICE, CONNECTION POINTS WILL BE EXPOSED FOR "FIELD VERIFICATION" BY CONTRACTOR AND CONNECTION DETAILS SHALL BE VERIFIED 48 HOURS PRIOR TO DISTRIBUTING SHUT-DOWN NOTICES.
4. CALL UNDERGROUND LOCATE AT 811 A MINIMUM OF 48-HOURS PRIOR TO ANY EXCAVATIONS.
5. UNLESS OTHERWISE ESTABLISHED IN WRITING BY THE CITY, ALL WATER MAINS SHALL BE STAKED FOR GRADES AND ALIGNMENT BY AN ENGINEERING OR SURVEYING FIRM CAPABLE OF PERFORMING SUCH WORK.
6. EXISTING VALVES AND ANY VALVES INSTALLED DIRECTLY TO AND CONNECTED TO A PORTION OF ACTIVE WATER SYSTEM ARE TO BE OPERATED BY CITY OF WOODLAND REPRESENTATIVES ONLY.
7. WATER MAINS SHALL BE PVC IN ACCORDANCE WITH AWWA C900, PRESSURE CLASS AS SPECIFIED ON DRAWINGS OR DUCTILE IRON PIPE PRESSURE CLASS 50 OR AS NOTED ON DRAWING.
8. ALL LINES SHALL BE CHLORINATED AND TESTED IN CONFORMANCE WITH THE STANDARD SPECIFICATIONS PRIOR TO USE.
9. HARD COPY AND ELECTRONIC "AS-BUILT" DRAWINGS SHALL BE SUBMITTED TO CITY OF WOODLAND UPON COMPLETION OF THE WORK.
10. ALL WATERMANS, FIRE HYDRANTS, BLOW OFF ASSEMBLIES, VACUUM BREAKERS, AND WATER SERVICES MUST HAVE LOCATE WIRE INSTALLED.

GENERAL NOTES FOR WATER MAIN INSTALL

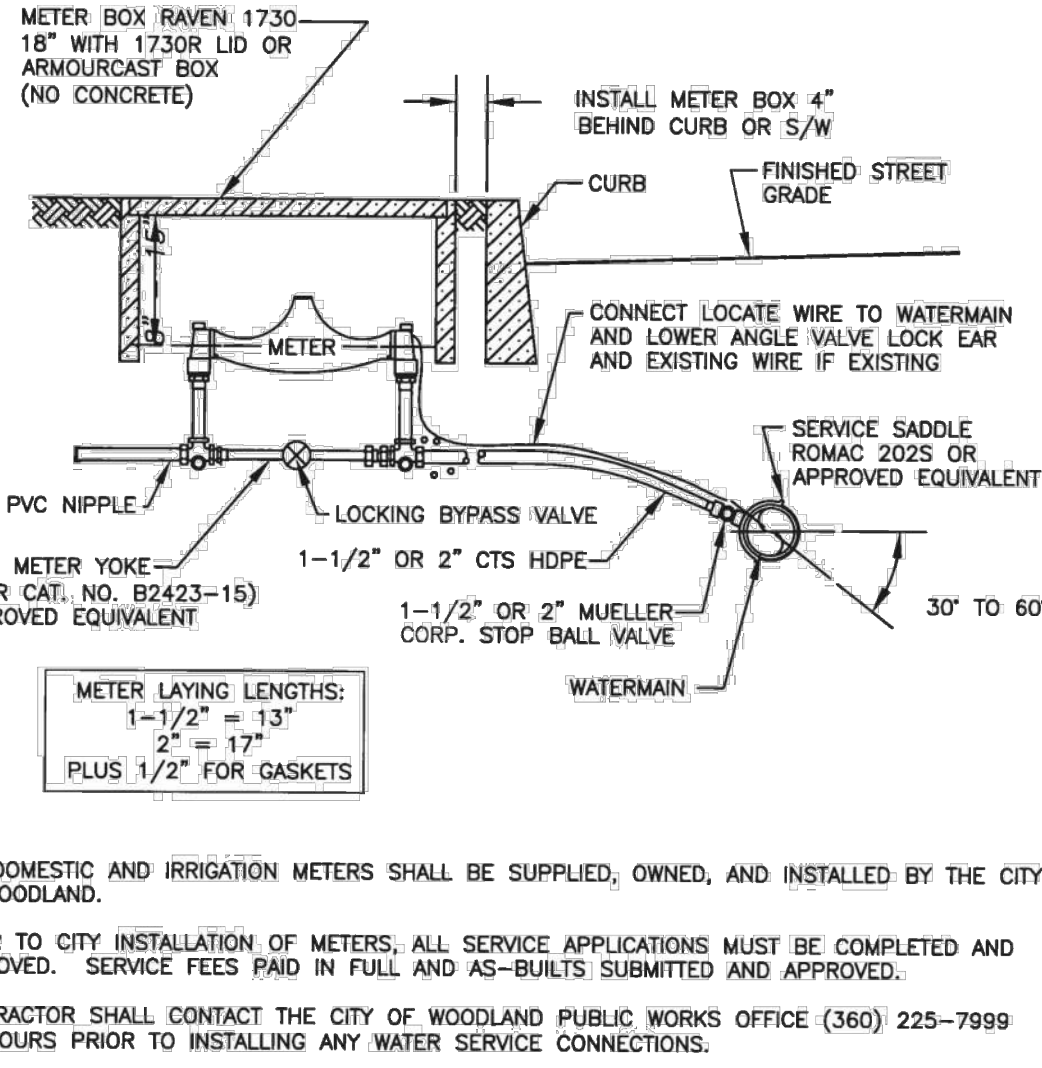
APPROVED	REVISIONS	DATE	DRAWN	DESIGNED	W-01
<i>[Signature]</i>					
PUBLIC WORKS DIRECTOR	DATE				



- NOTES:
1. SERVICE LINES ON NEW WATERMANS SHALL BE PRESSURE TESTED UP TO THE LOCKING ANGLE BALL VALVE AS PART OF THE WATERMAIN TESTING.
  2. METER BOXES SHALL HAVE A 4" WOOD STAKE WITH BLUE PAINT BEHIND THE BOX.
  3. ALL DOMESTIC AND IRRIGATION METERS SHALL BE SUPPLIED, OWNED, AND INSTALLED BY THE CITY OF WOODLAND.

3/4" AND 1" WATER SERVICE

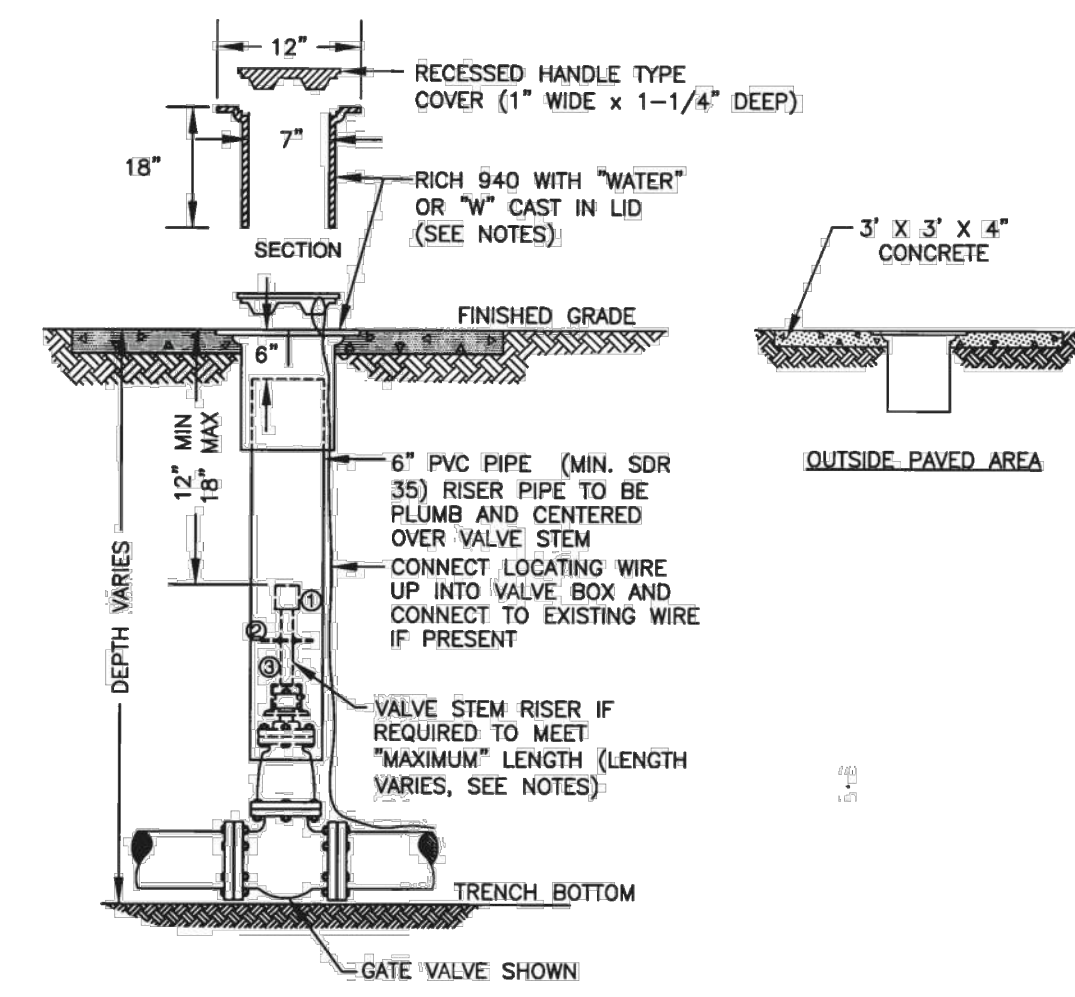
APPROVED	REVISIONS	DATE	DRAWN	DESIGNED	W-02
<i>[Signature]</i>					
PUBLIC WORKS DIRECTOR	DATE				



- NOTES:
1. ALL DOMESTIC AND IRRIGATION METERS SHALL BE SUPPLIED, OWNED, AND INSTALLED BY THE CITY OF WOODLAND.
  2. PRIOR TO CITY INSTALLATION OF METERS, ALL SERVICE APPLICATIONS MUST BE COMPLETED AND APPROVED. SERVICE FEES PAID IN FULL AND AS-BUILTS SUBMITTED AND APPROVED.
  3. CONTRACTOR SHALL CONTACT THE CITY OF WOODLAND PUBLIC WORKS OFFICE (360) 225-7999 48-HOURS PRIOR TO INSTALLING ANY WATER SERVICE CONNECTIONS.
  4. METERS WILL NOT BE SET BY THE CITY PRIOR TO DISINFECTION OF THE MAIN AND SERVICE, AND PRIOR TO A SUCCESSFUL BACTERIOLOGICAL TEST.
  5. SERVICE LINES ON NEW WATERMANS SHALL BE PRESSURE TESTED UP TO THE LOCKING ANGLE BALL VALVE AS PART OF THE WATERMAIN TESTING.
  6. DURING THE PRESSURE TEST, THE MAIN SHALL BE OPEN FOR INSPECTION OF ALL CORROSION STOPPS.
  7. USE 1-7/8" BIT FOR ALL 2" SADDLE TAPS AND 1-3/8" BIT FOR 1-1/2" SADDLE TAPS.
  8. METER BOXES ARE NOT ALLOWED IN HARD SURFACED AREAS WITHOUT PRIOR WRITTEN APPROVAL. METER BOXES IN HARD SURFACE AREAS SHALL BE SLIGHTLY HIGHER (1/8" MAX) THAN SURROUNDING GRADE AND BOTH THE BOX AND LID MUST BE TRAFFIC RATED.
  9. RAVEN OR ARMOURCAST BOX AND EXTENSION MAY BE ALLOWED WITH 1 1/2" METER SETS ONLY.
  10. 1 1/2" METER CAN BE INSTALLED IN A 2" SETTING WITH ADAPTORS.

1-1/2" AND 2" WATER SERVICE

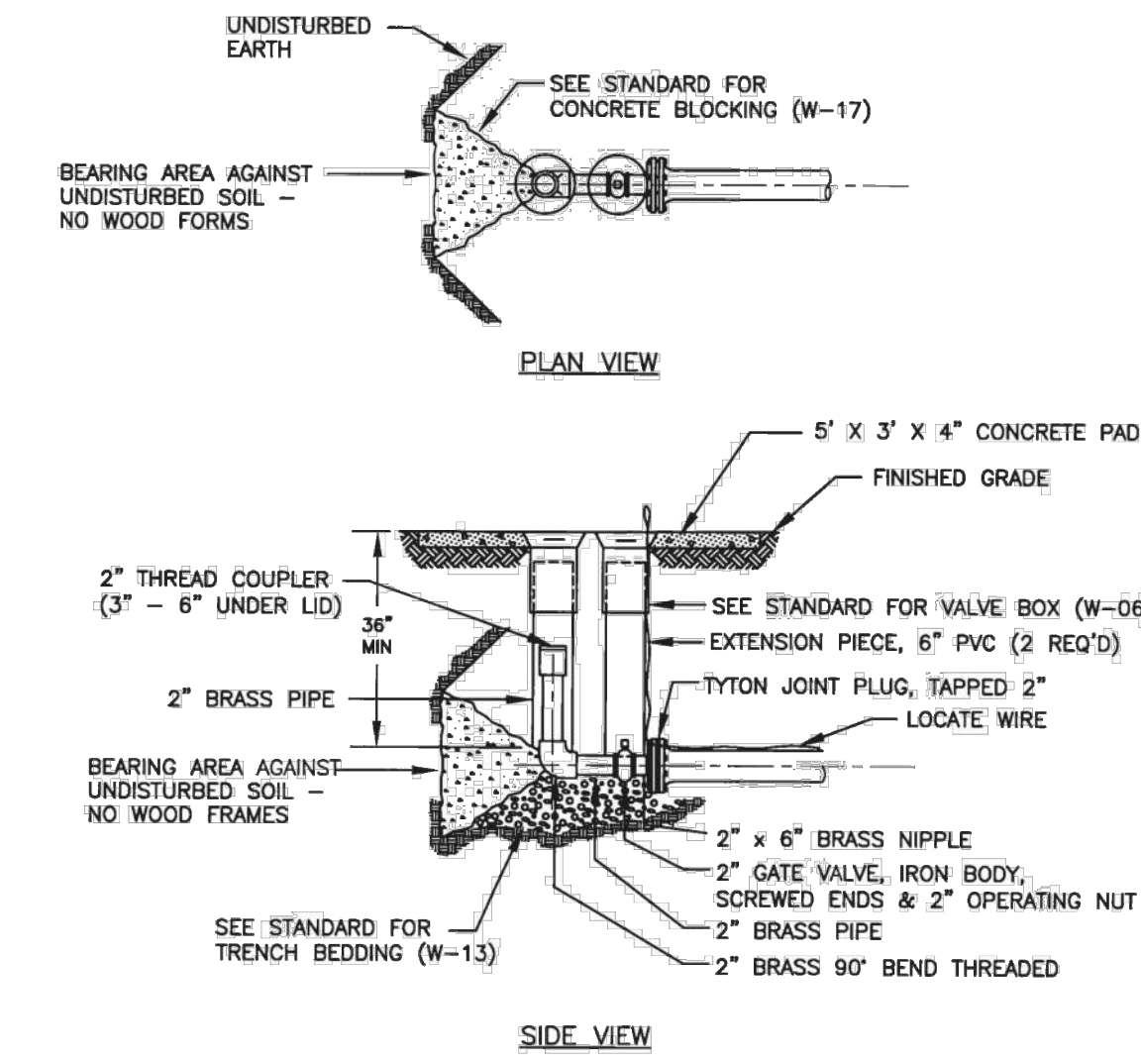
APPROVED	REVISIONS	DATE	DRAWN	DESIGNED	W-03
<i>[Signature]</i>					
PUBLIC WORKS DIRECTOR	DATE				



- NOTES:
1. VALVE STEM EXTENSION TO INCLUDE THE FOLLOWING WELDS TO BE 1/4" FILED WELD ALL AROUND.
  2. VALVE OPERATING NUT OR 1-7/8" X 1-7/8" X 2" HIGH GRADE STEEL.
  3. 3/16" THICK X 5-1/8" DIA STEEL GUIDE PLATE SHIPT.
  4. 2" X 2" X 3/16" SQUARE STRUCTURAL STEEL TUBING TO FIT OPERATING NUT.
  5. FOR NEW VALVES IN EXISTING STREET, RESTORE PAVEMENT PER CITY OF WOODLAND STANDARDS.

STANDARD VALVE BOX AND COVER

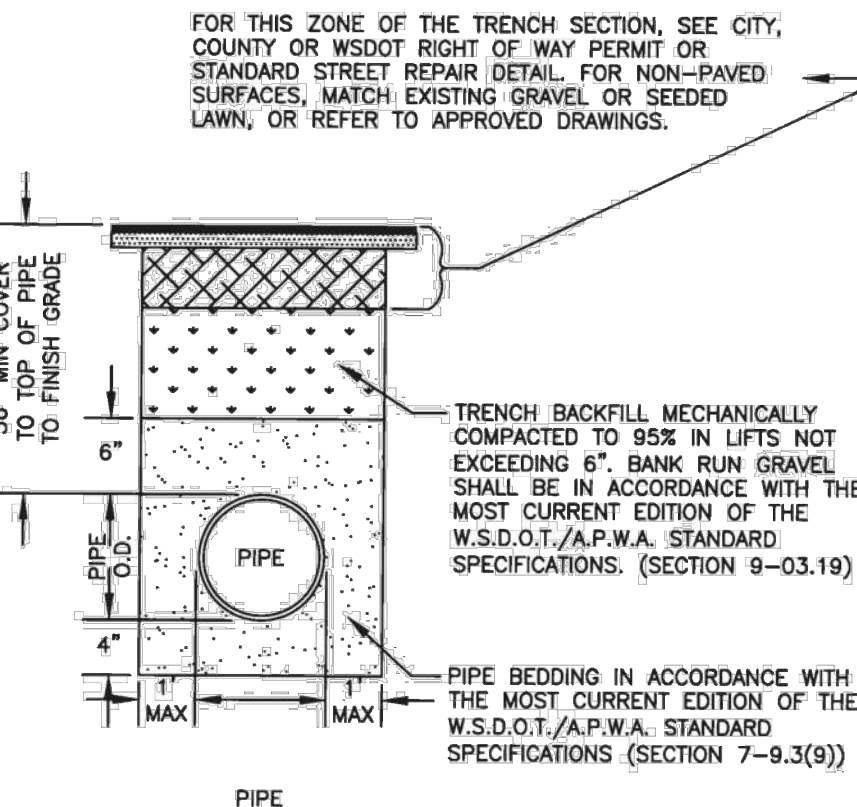
APPROVED	REVISIONS	DATE	DRAWN	DESIGNED	W-06
<i>[Signature]</i>					
PUBLIC WORKS DIRECTOR	DATE				



- NOTE:
1. NO WOOD OR TIE DOWNS ALLOWED.

STANDARD BLOW OFF

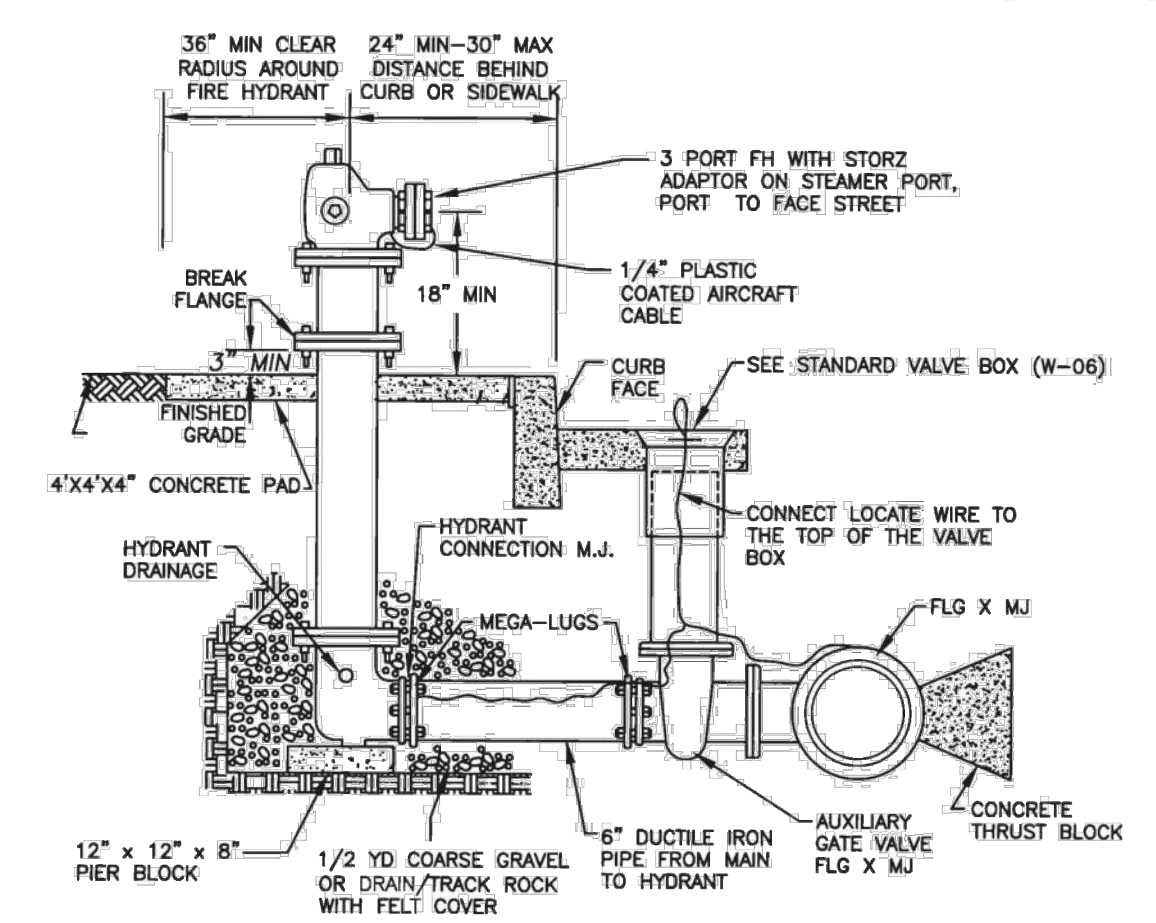
APPROVED	REVISIONS	DATE	DRAWN	DESIGNED	W-10
<i>[Signature]</i>					
PUBLIC WORKS DIRECTOR	DATE				



- NOTE:
1. CLEAN NATIVE MATERIAL MAY BE USED AS PIPE BEDDING AND TRENCH BACKFILL AS APPROVED BY CITY OF WOODLAND PUBLIC WORKS.

WATER PIPE TRENCH BEDDING & BACKFILL

APPROVED	REVISIONS	DATE	DRAWN	DESIGNED	W-13
<i>[Signature]</i>					
PUBLIC WORKS DIRECTOR	DATE				



- NOTES:
1. HYDRANT TO BE WATERUS WB67 CLASS 250.
  2. HYDRANT TO BE 5-1/4" COMMERCIAL W/ (2) 2-1/2" NST, (1) 4-1/2" NST THREADED PORT(S) WITH (1) 5" TWO LUG QUARTER TURN STORZ OR APPROVED EQUAL PUMPER PORT CONNECTION.
  3. STORZ ADAPTORS ARE REQUIRED.
  4. FOUR (4) GUARD POSTS TO BE INSTALLED IN UNPROTECTED AREAS (4" RADII).
  5. FIRE HYDRANT INSTALLATION SHALL BE APPROVED BY THE CITY OF WOODLAND PUBLIC WORKS DEPARTMENT PRIOR TO BACKFILLING.
  6. HYDRANTS SHALL NOT BE SET UNTIL LOCATION AND DEPTH ARE APPROVED BY THE CITY OF WOODLAND.
  7. FIRE HYDRANTS SHALL BE SHOP PAINTED PRIOR TO INSTALLATION W/ SAFETY YELLOW (RCCDA NO. QDB1) HIGH GLOSS EQUIPMENT ENAMEL.
  8. HYDRANT STANDARD BURY IS 4" UNLESS OTHERWISE NOTED ON THE PLANS, OR WHEN BREAKAWAY JOINT IS STALLED 7" ABOVE FINISHED GRADE.
  9. HYDRANT LOCATIONS SHALL BE AS SHOWN ON THE PLANS.
  10. JOINT RESTRAINT SYSTEM MAY BE USED FOR INSTALLATIONS OF NOT MORE THAN 18' (ONE PIPE LENGTH).
  11. INSTALL LOCATING WIRE AND CONNECT TO EXISTING WIRE IF PRESENT.

FIRE HYDRANT

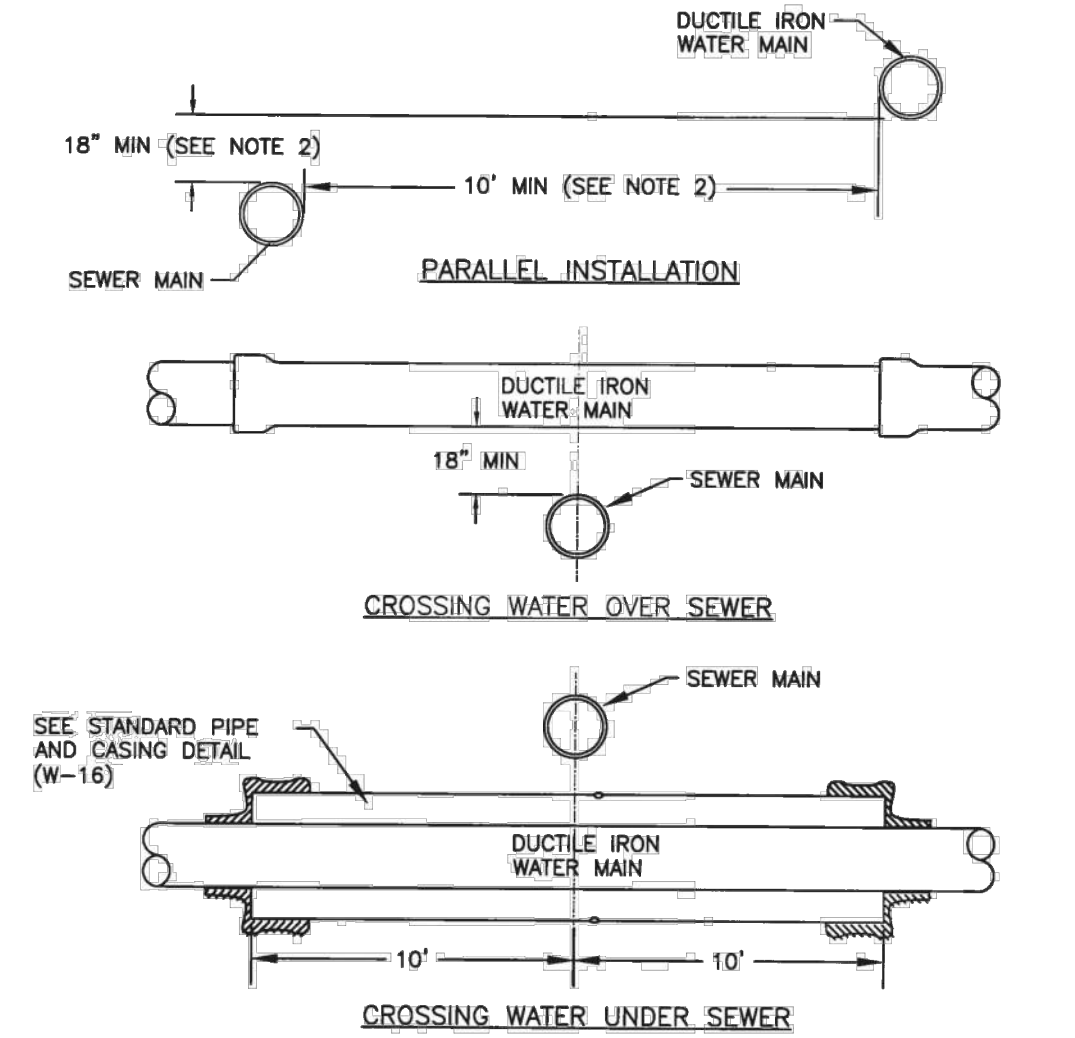
APPROVED	REVISIONS	DATE	DRAWN	DESIGNED	W-14
<i>[Signature]</i>					
PUBLIC WORKS DIRECTOR	DATE				

PIPE SIZE	SOIL BEARING = 2000 LB/S.F.		MIN. LENGTH
	HORIZ. BEARING VOL. OF BLOCKING	MIN. BEARING C.F.	
4"	1.2	0.8	1.00
6"	1.2	0.8	1.00
8"	1.2	0.8	1.00
10"	1.2	0.8	1.00
12"	1.2	0.8	1.00
14"	1.2	0.8	1.00
16"	1.2	0.8	1.00
18"	1.2	0.8	1.00
20"	1.2	0.8	1.00
22"	1.2	0.8	1.00
24"	1.2	0.8	1.00

- NOTES:
1. ALL BLOCKING SHALL BE POURED AGAINST FIRM UNDISTURBED SOIL.
  2. ALL CONCRETE BLOCKING SHALL BE POURED IN PLACE WITHOUT DIRECT CONTACT TO PIPE, FITTINGS OR FLANGES. 15 LB. ASPHALT-IMPREGNATED FELT, OR EQUIVALENT AS APPROVED BY THE INSPECTOR, SHALL BE PLACED BETWEEN THE CONCRETE AND PIPE, FITTINGS OR FLANGES.
  3. LAYOUT TO BE APPROVED BY THE INSPECTOR PRIOR TO AND AFTER CONCRETE POUR.
  4. CONCRETE FOR ALL BLOCKING SHALL HAVE A 28-DAY MINIMUM COMPRESSIVE STRENGTH OF 2,300 P.S.I.
  5. THIS CHART IS NOT APPLICABLE TO VERTICAL BENDS. LOCATION SPECIFIC DESIGN IS REQUIRED FOR SUCH INSTALLATIONS.
  6. WHERE THE TRENCH SOIL HAS A BEARING PRESSURE LESS THAN 2000 POUNDS PER SQUARE FOOT, LOCATION SPECIFIC DESIGN IS REQUIRED.

STANDARD THRUST BLOCK

APPROVED	REVISIONS	DATE	DRAWN	DESIGNED	W-17
<i>[Signature]</i>					
PUBLIC WORKS DIRECTOR	DATE				



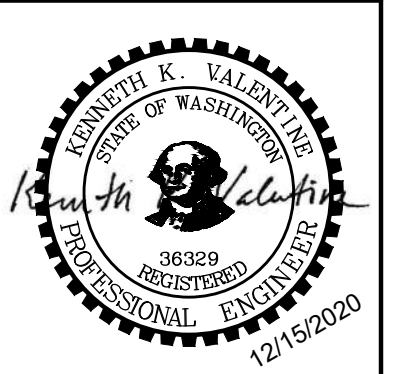
- NOTES:
1. EXCEPTIONS SHALL BE APPROVED BY THE CITY OF WOODLAND IN WRITING.
  2. WHERE MINIMUM CLEARANCES CANNOT BE MET, THE SEWER MAIN SHALL BE PLACED IN SEPARATE TRENCHES AND CONSTRUCTED OF MATERIALS EQUIVALENT TO THE CITY OF WOODLAND WATER MAIN STANDARDS, INCLUDING PRESSURE TESTING. ADEQUATE RESTRAINT SHALL BE PROVIDED TO ALLOW TESTING TO OCCUR.
  3. ALL SEWER CROSSINGS OVER OR UNDER WATER MAINS SHALL MAXIMIZE THE JOINT SEPARATION BY USING THE LONGEST STANDARD LENGTH PIPE AVAILABLE FROM THE MANUFACTURER FOR BOTH THE WATER AND SEWER MAINS. BOTH PIPES SHALL BE CENTERED AT THE POINT OF CROSSING.
  4. ALL SEWER CROSSING OVER WATER MAINS SHALL BE CONSTRUCTED OF MATERIALS EQUIVALENT TO THE CITY OF WOODLAND WATER MAIN STANDARDS, INCLUDING PRESSURE TESTING.

WATER AND SEWER SPACING

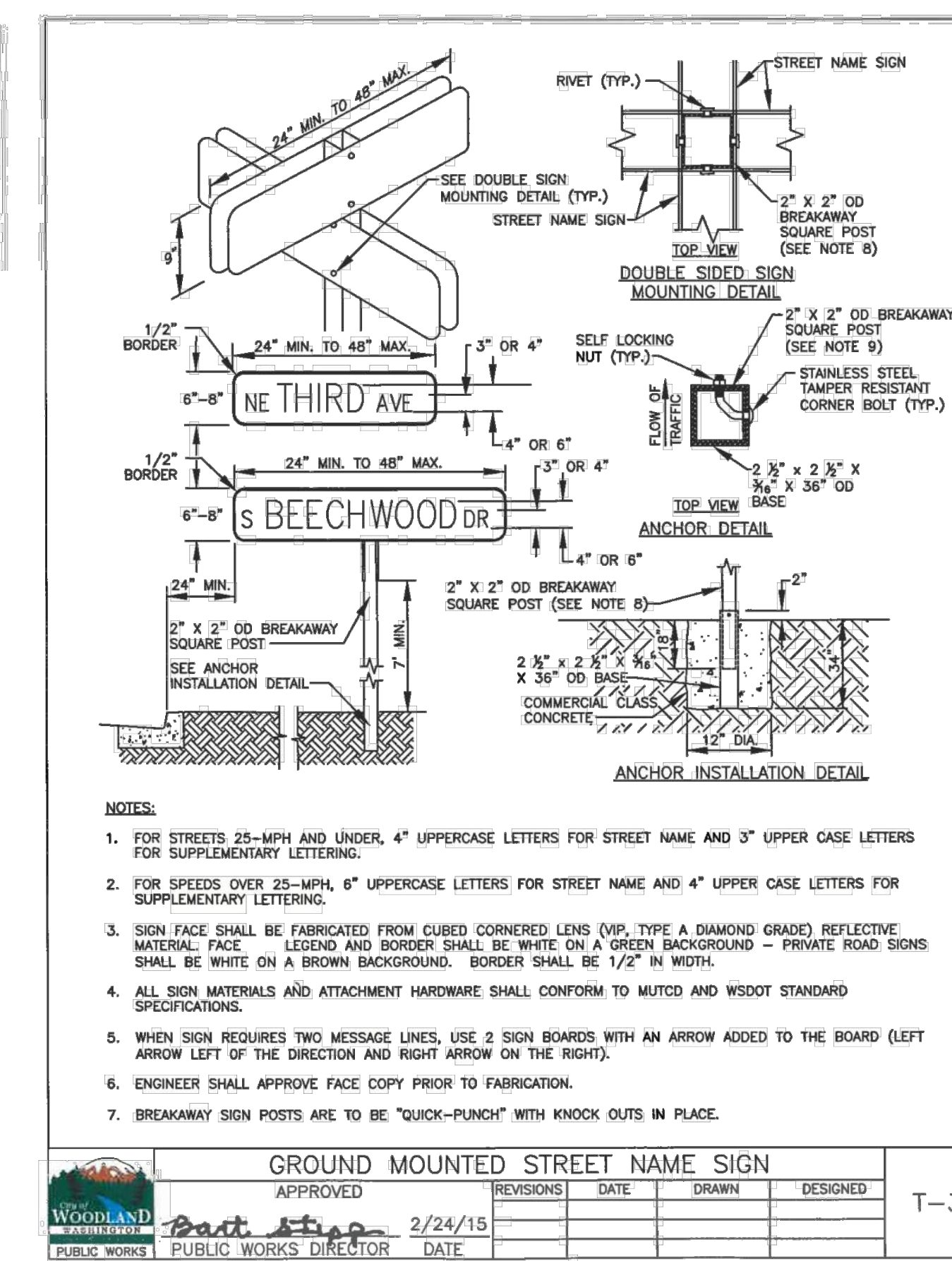
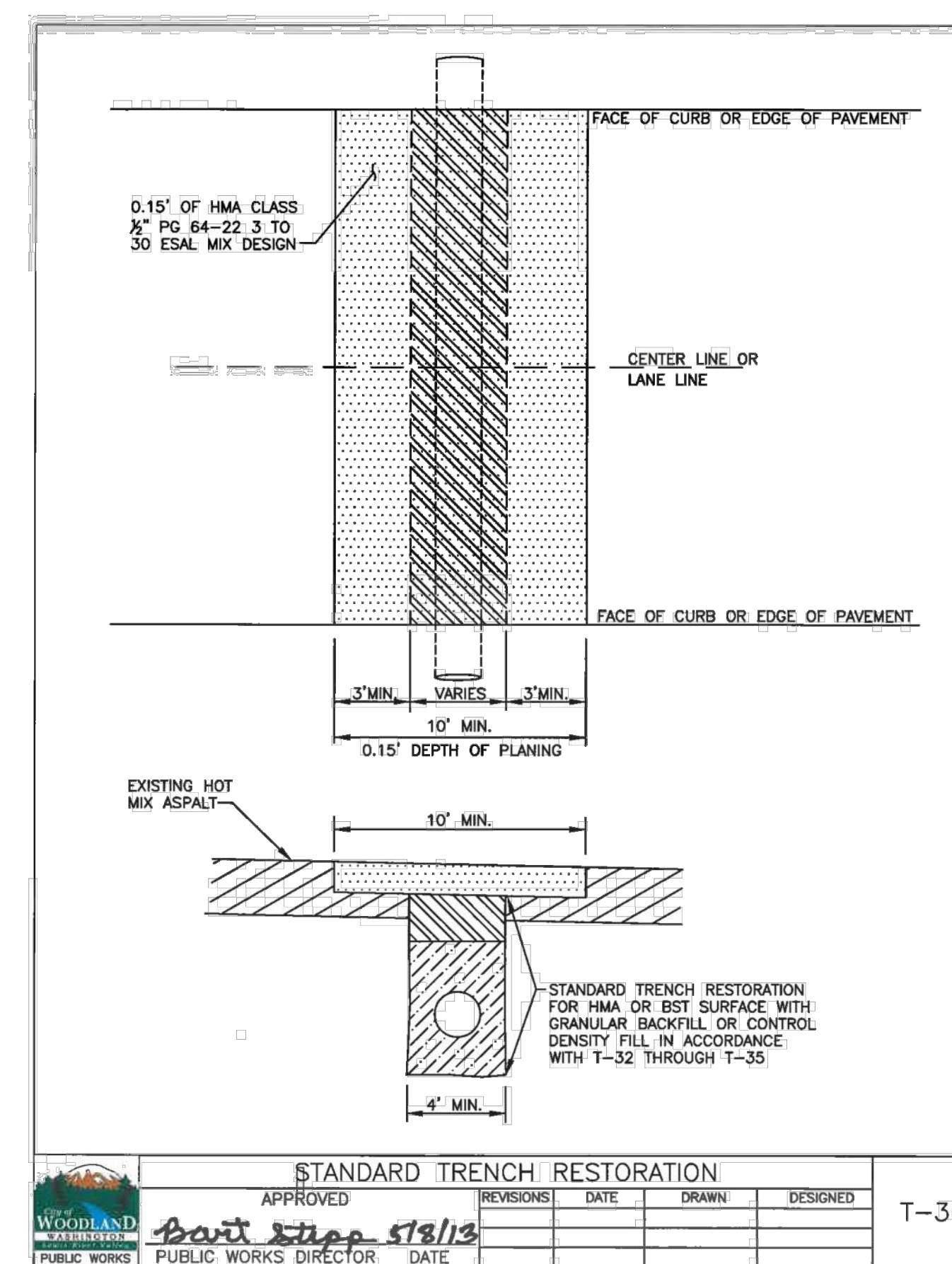
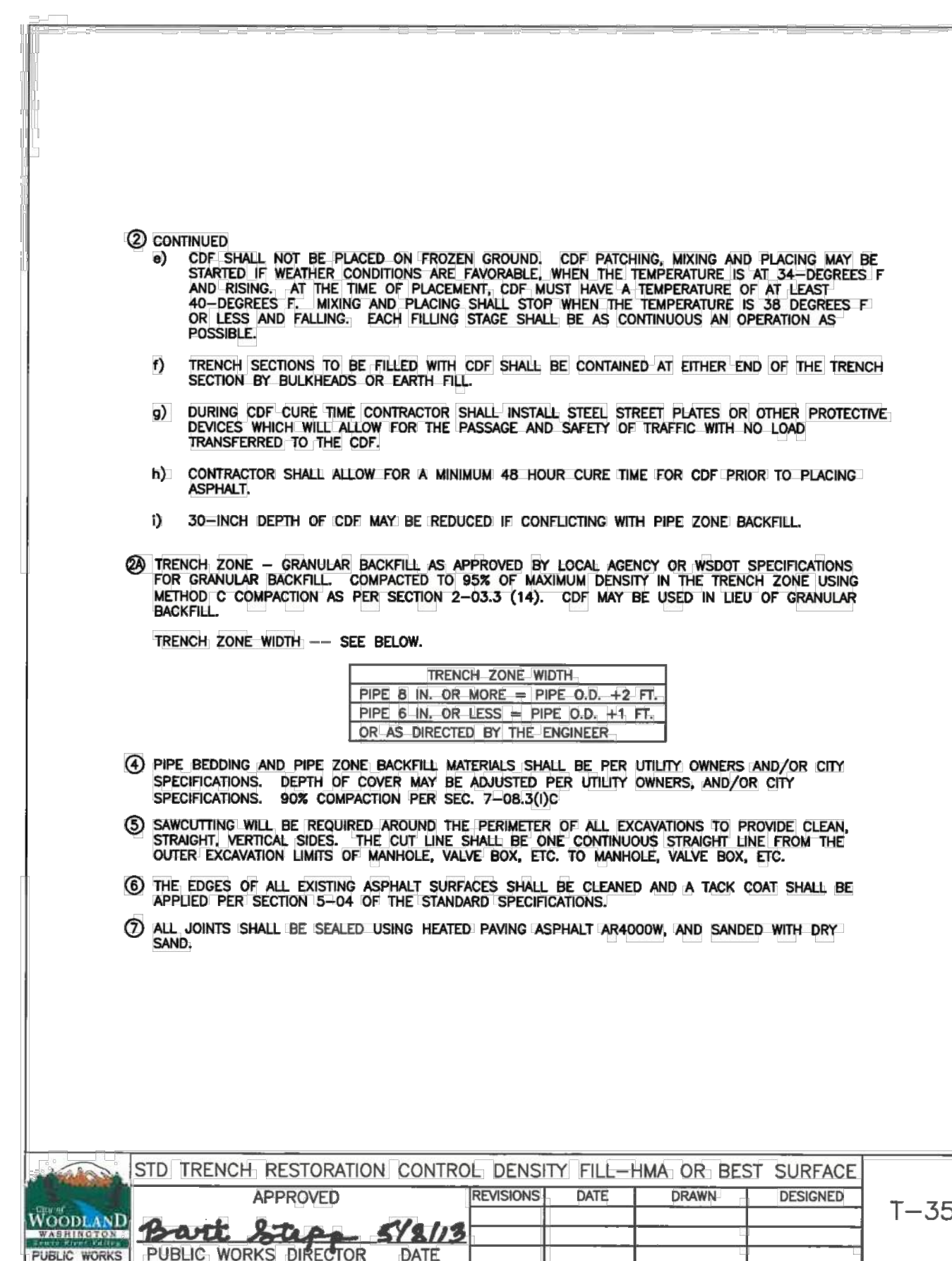
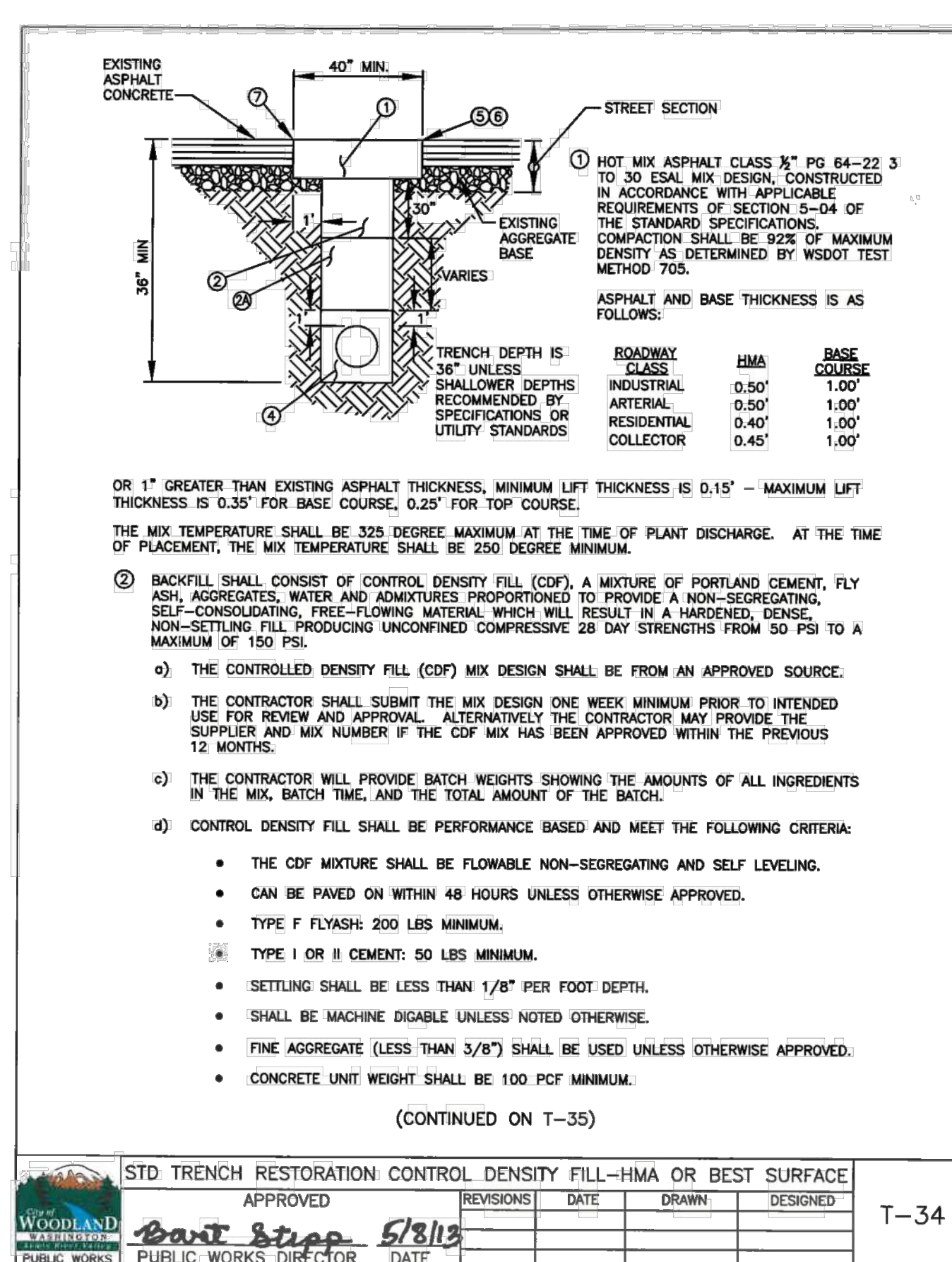
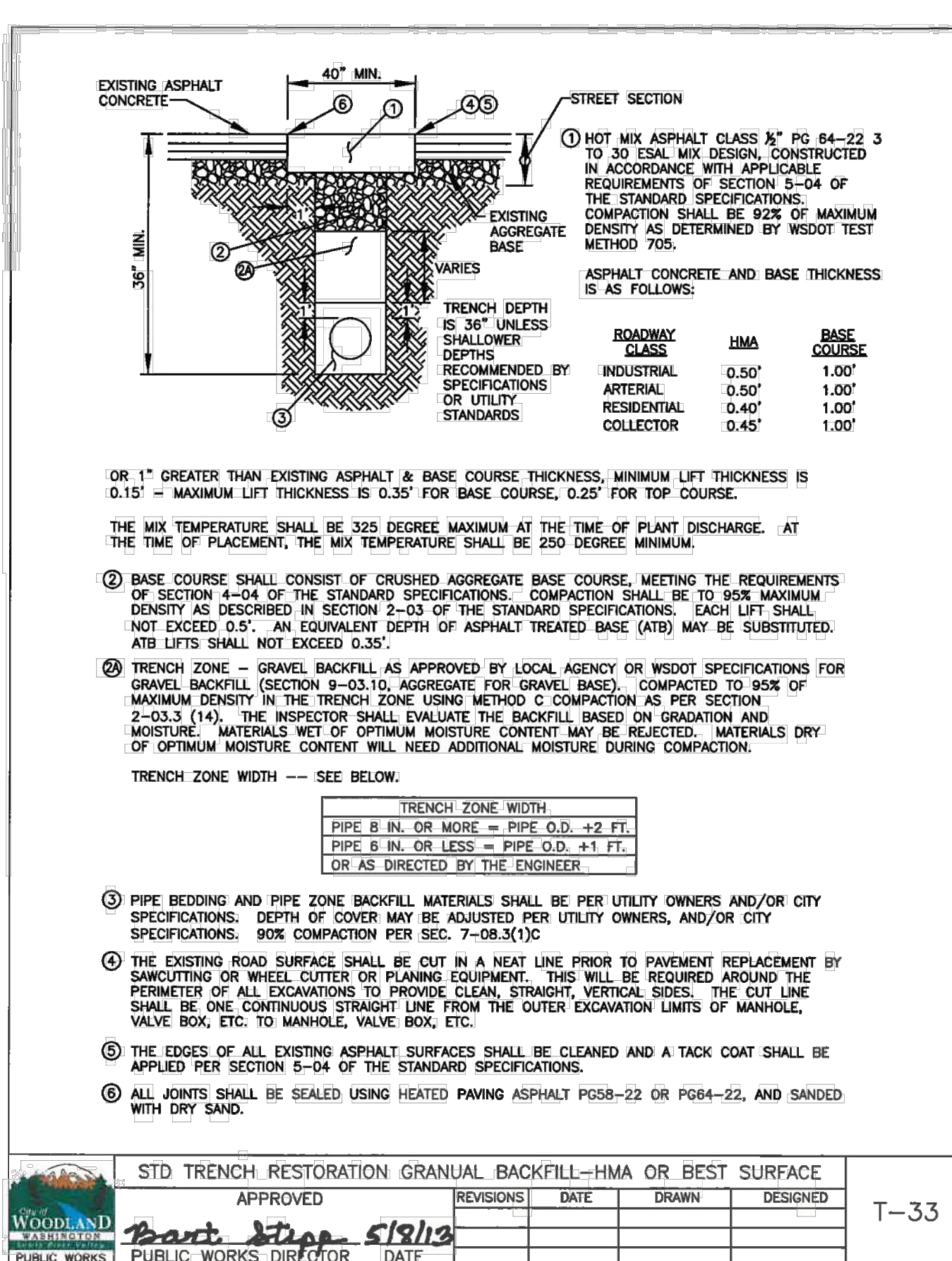
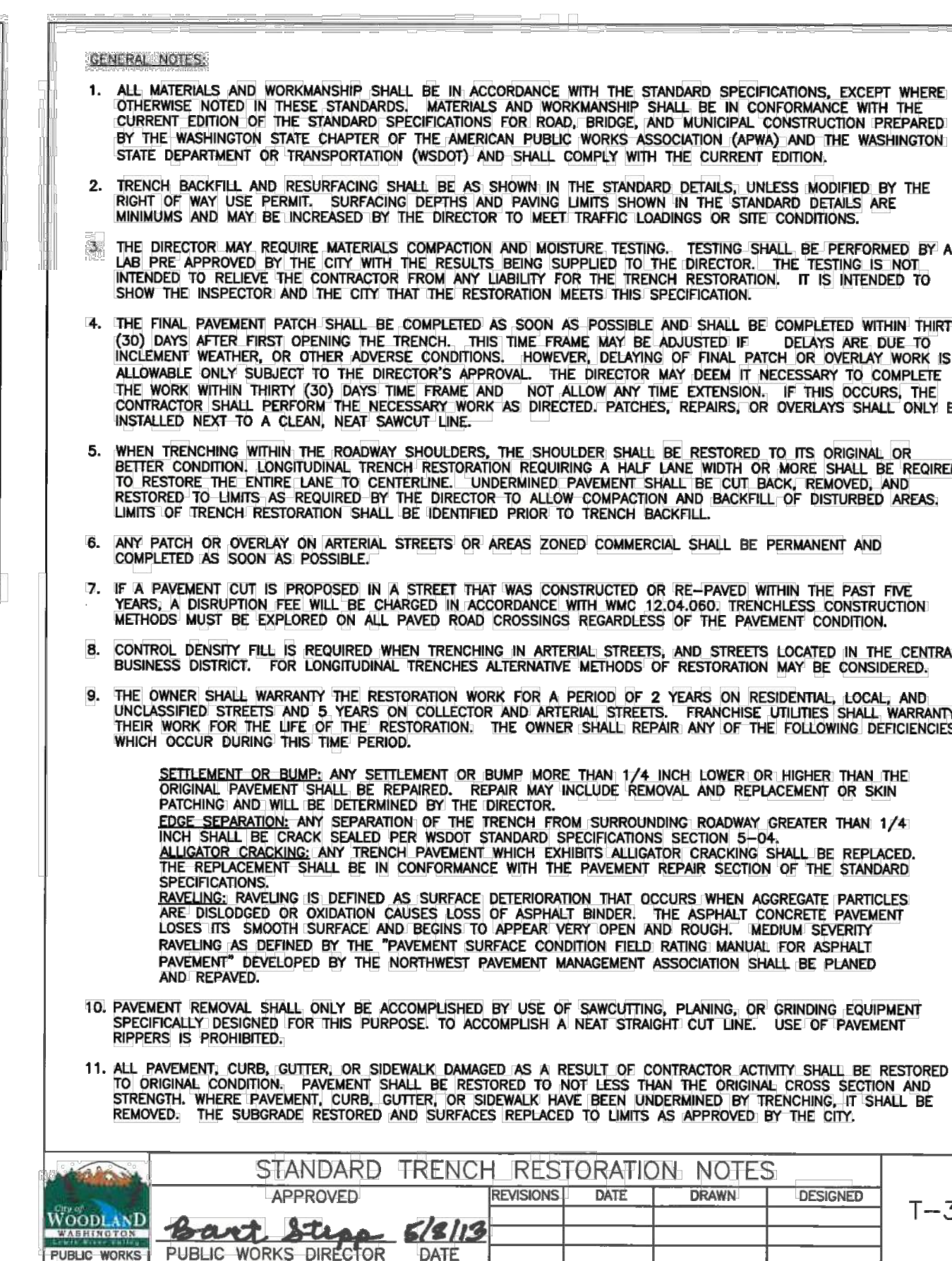
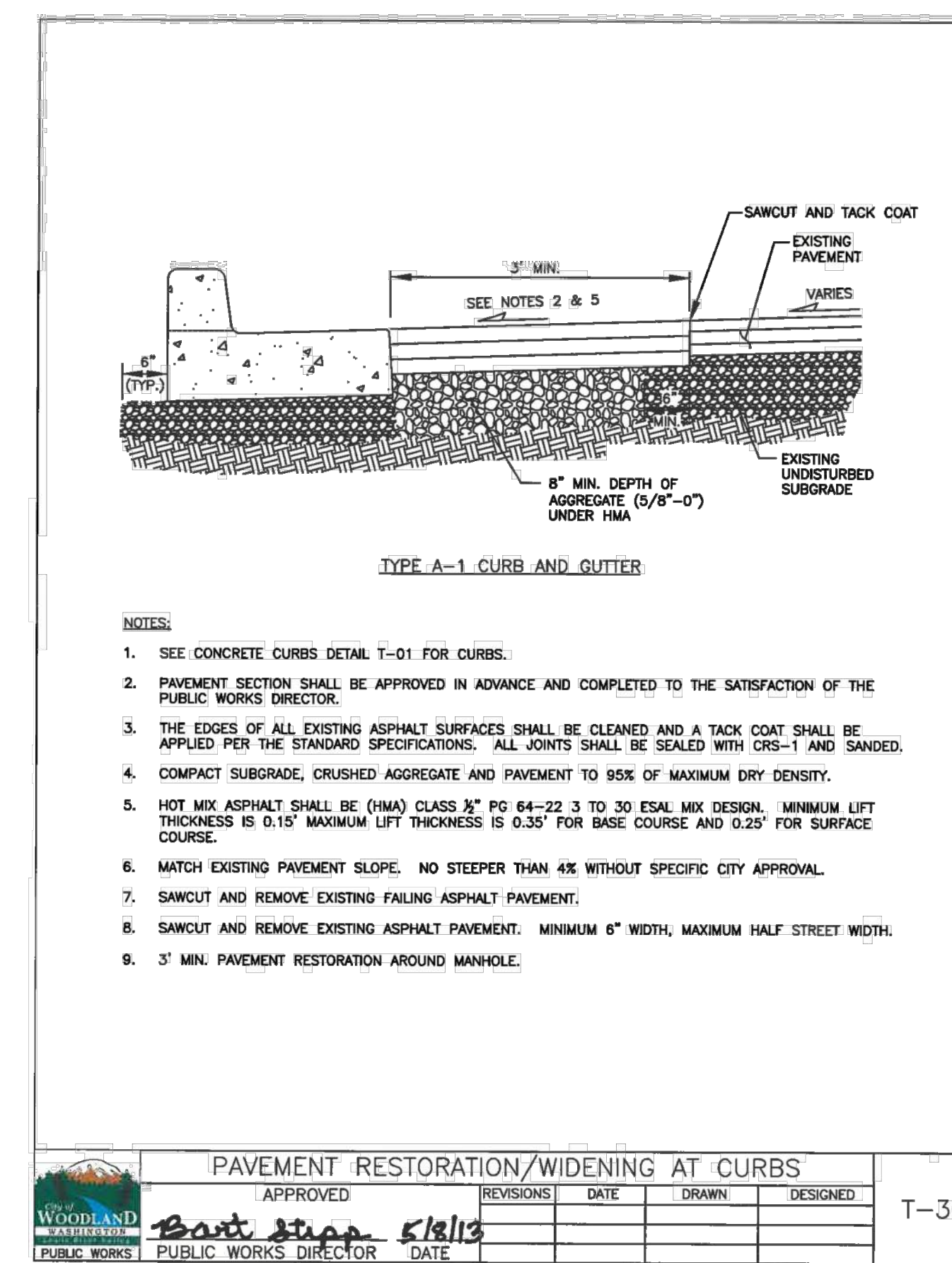
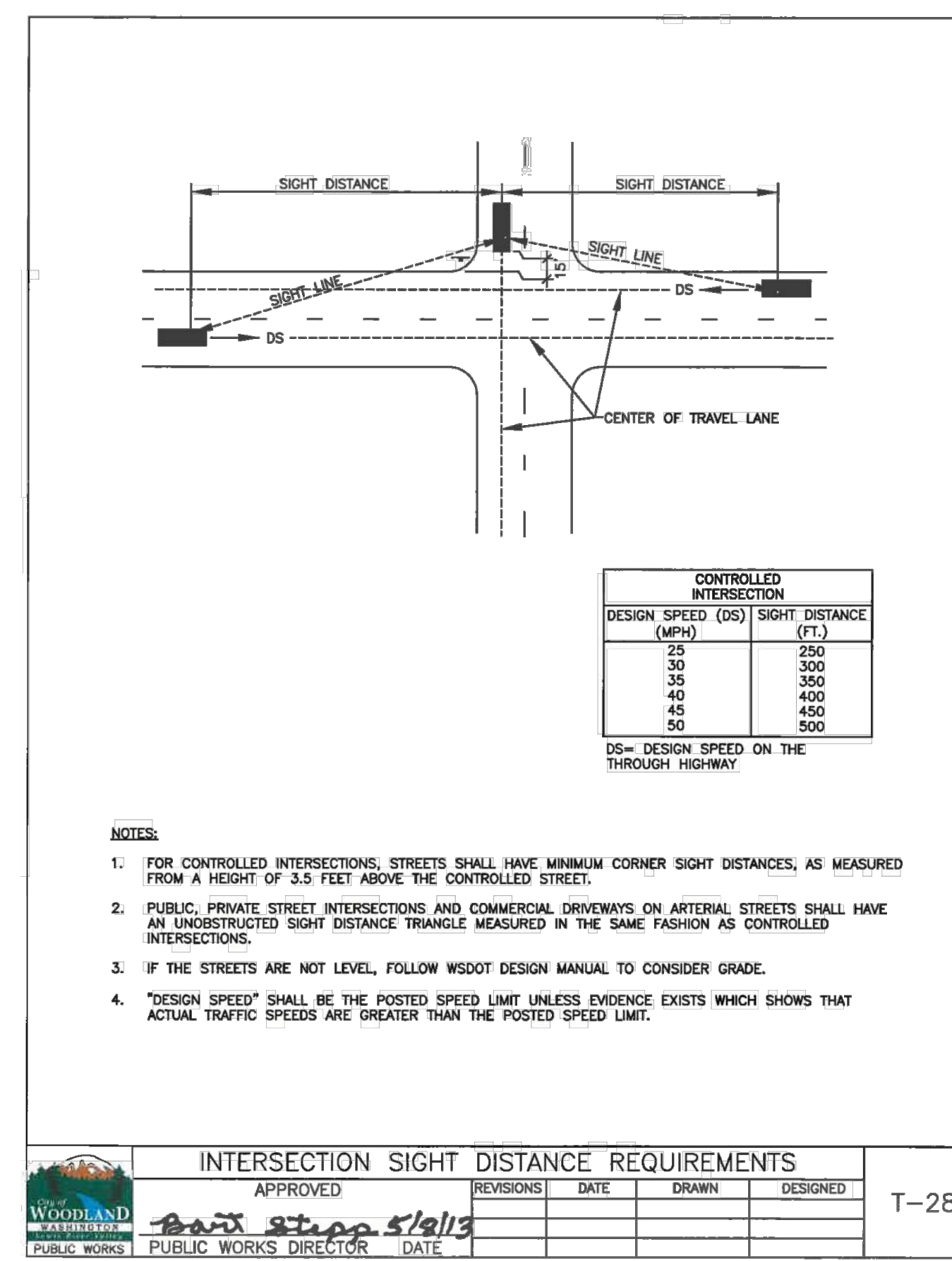
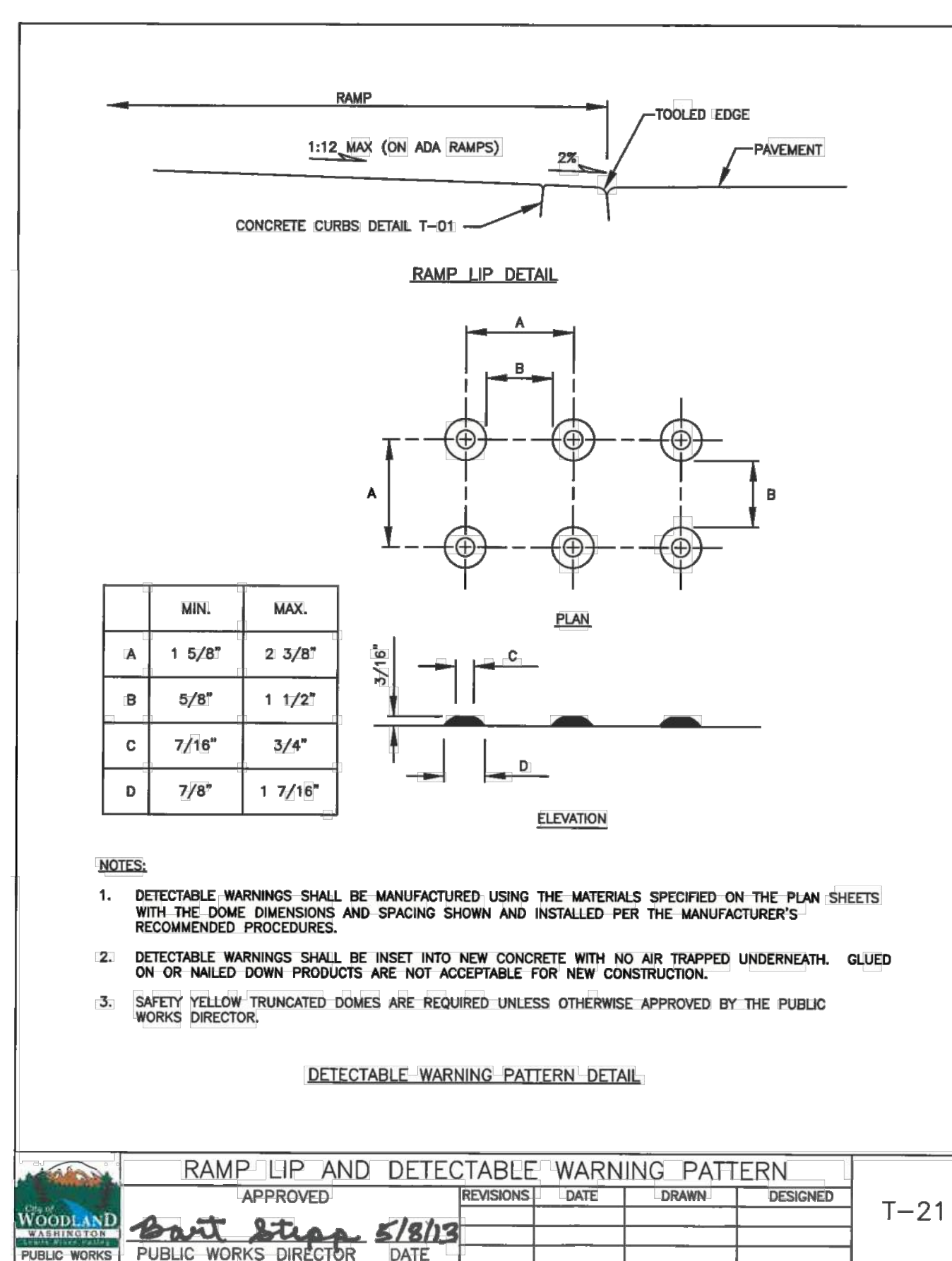
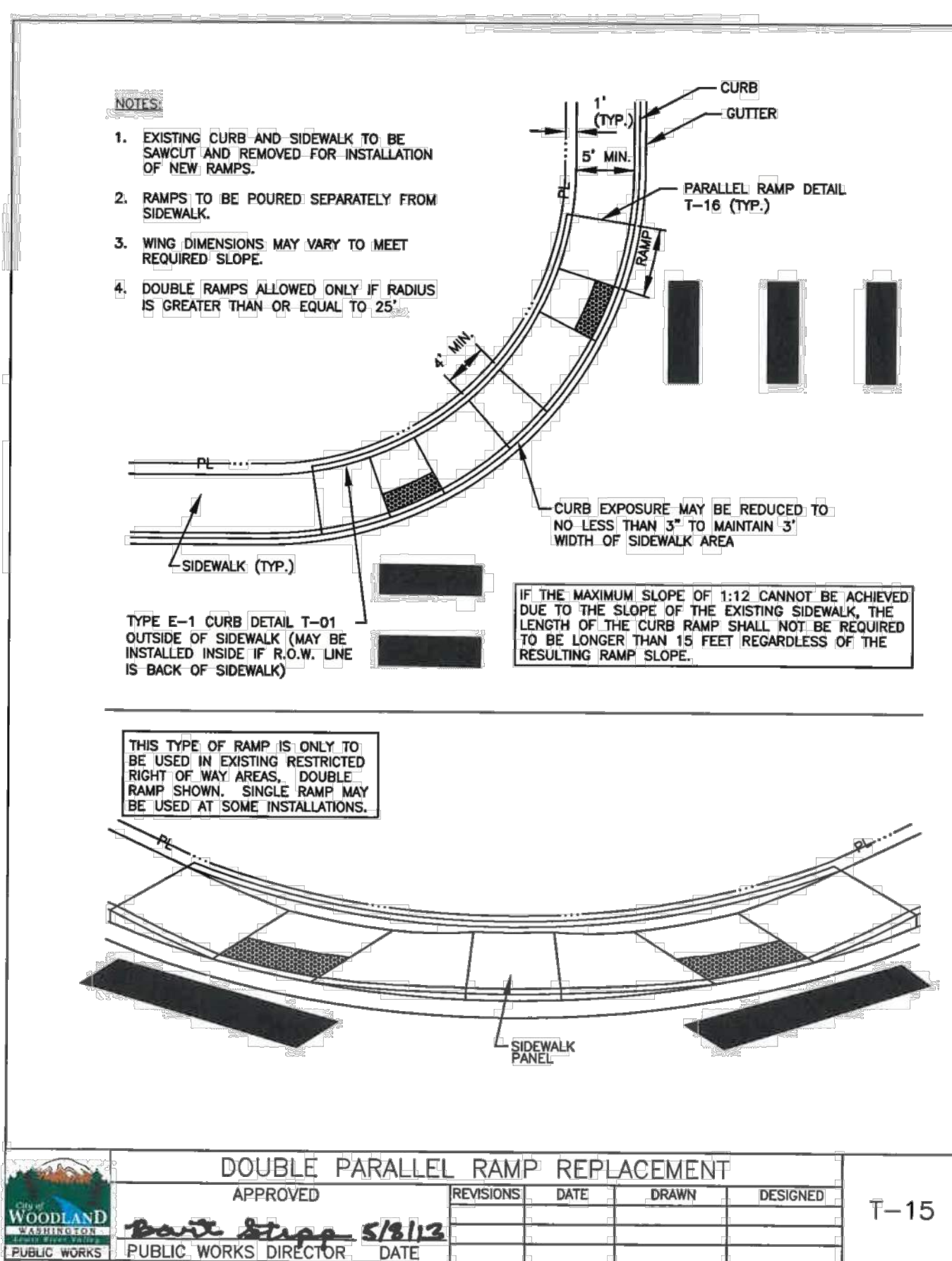
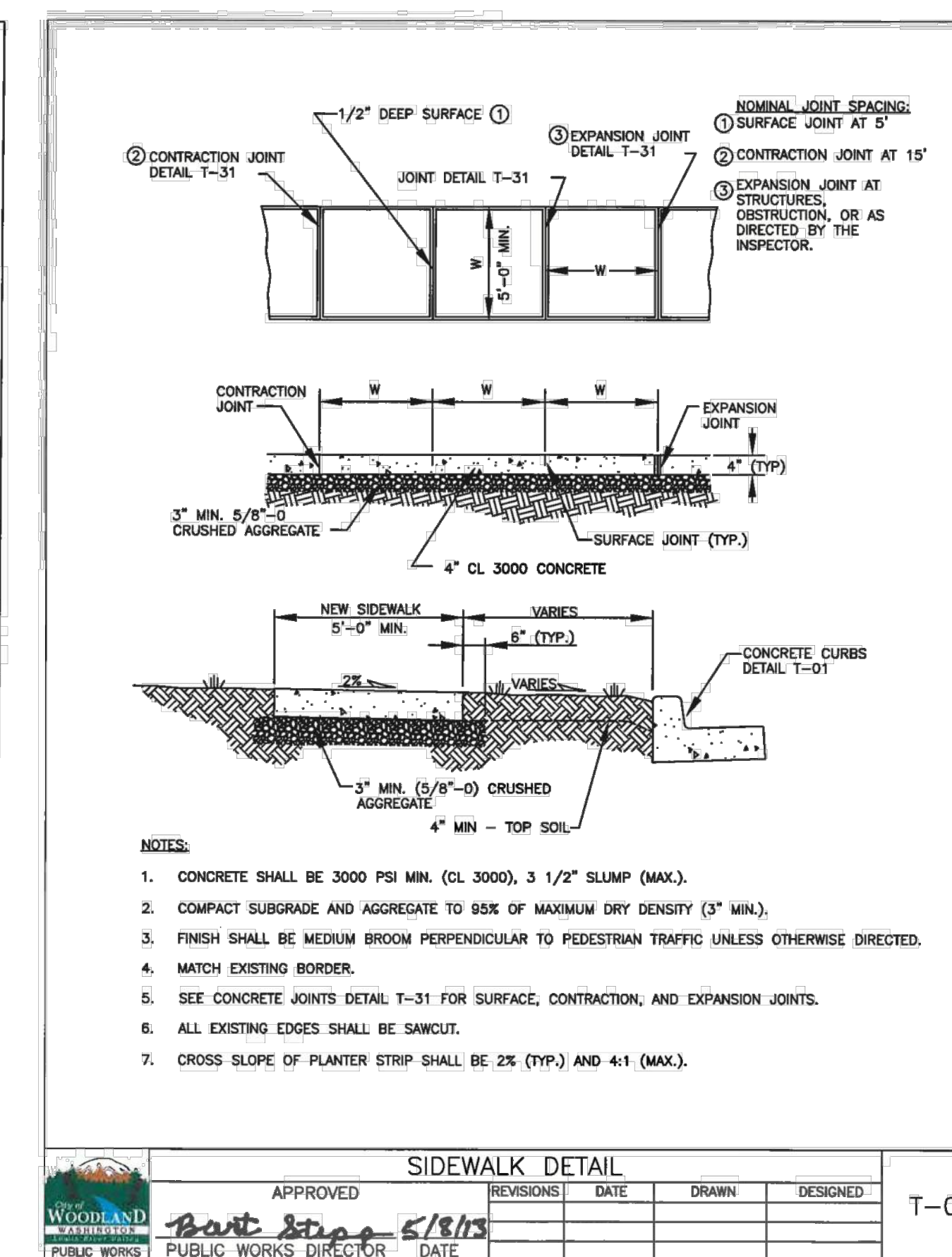
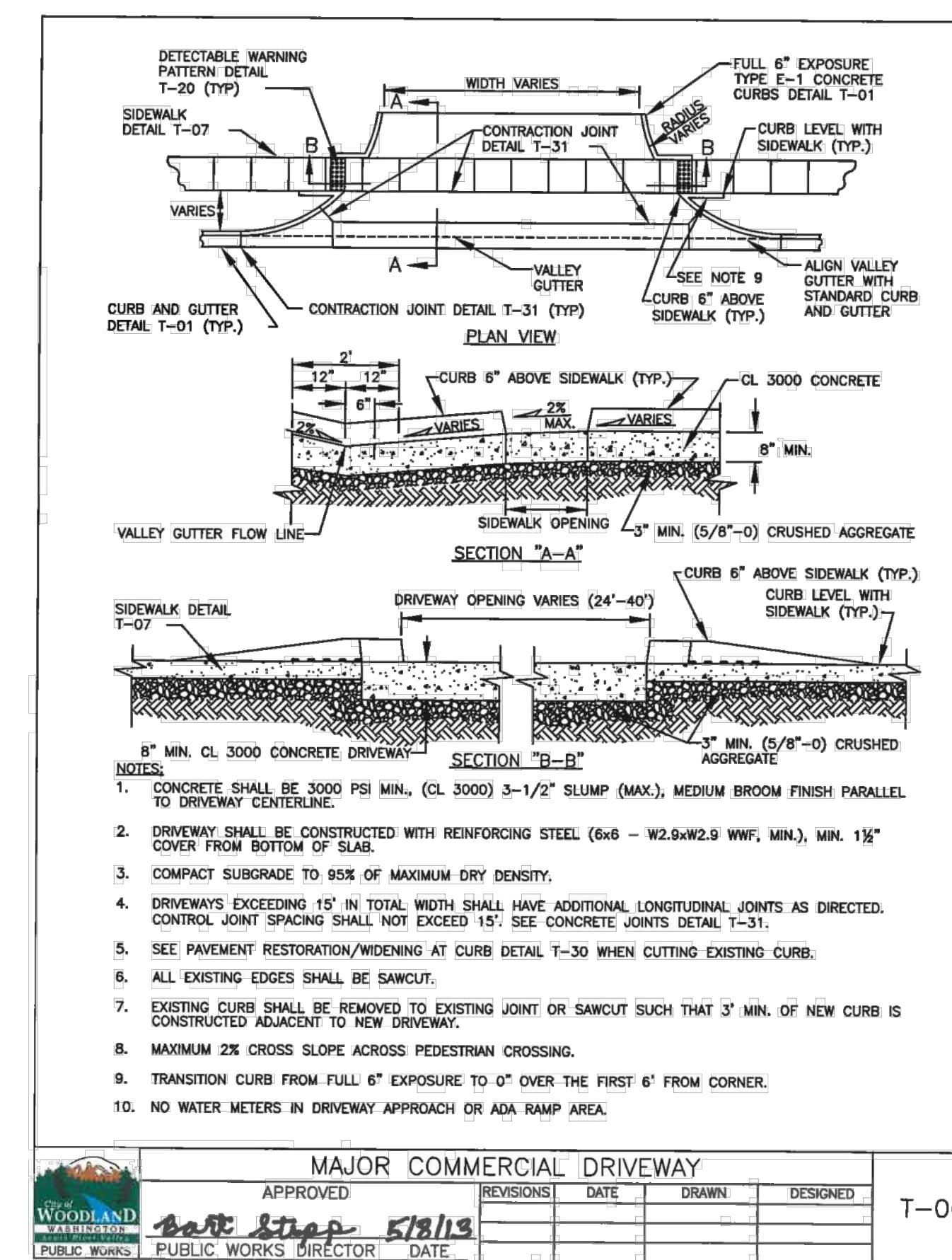
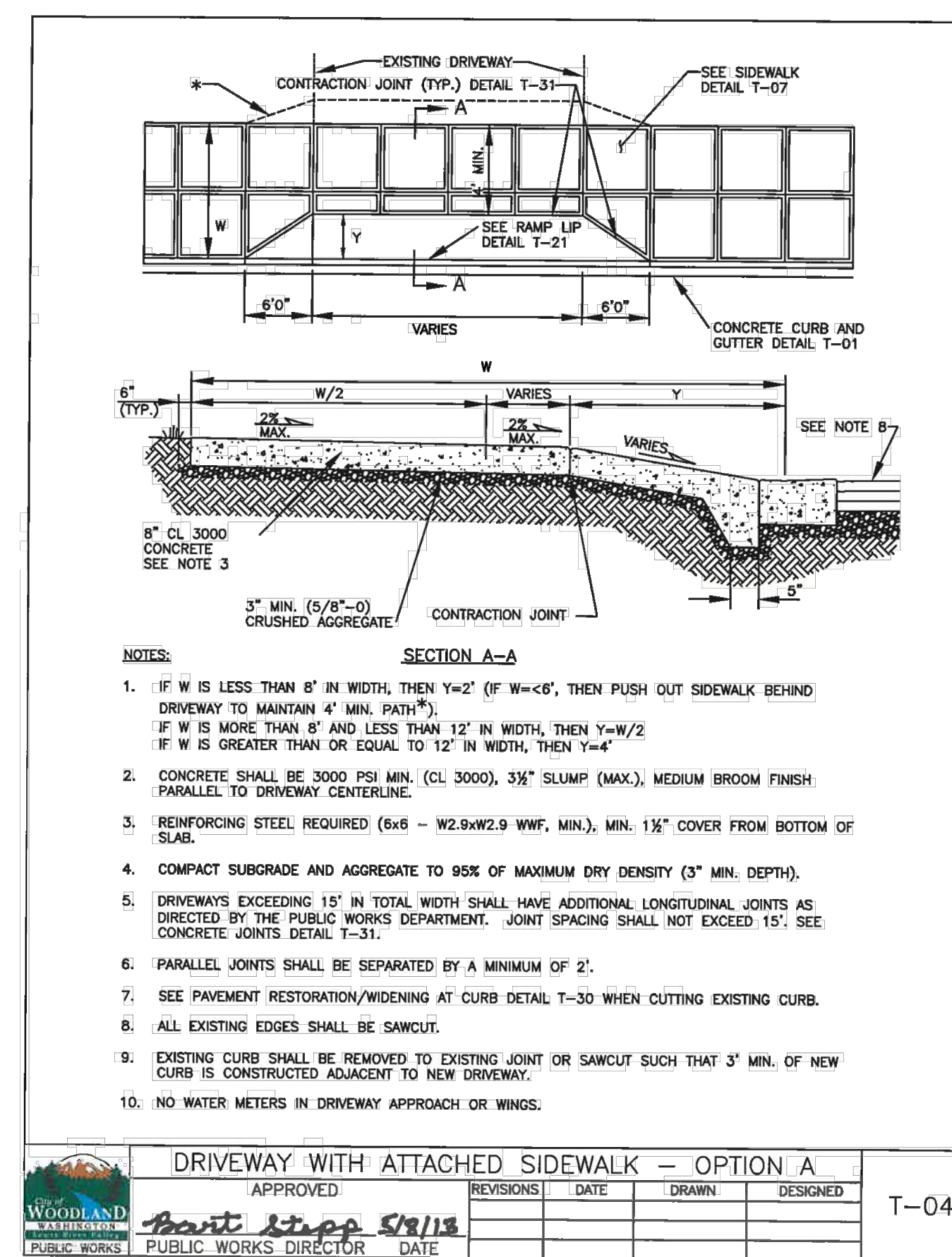
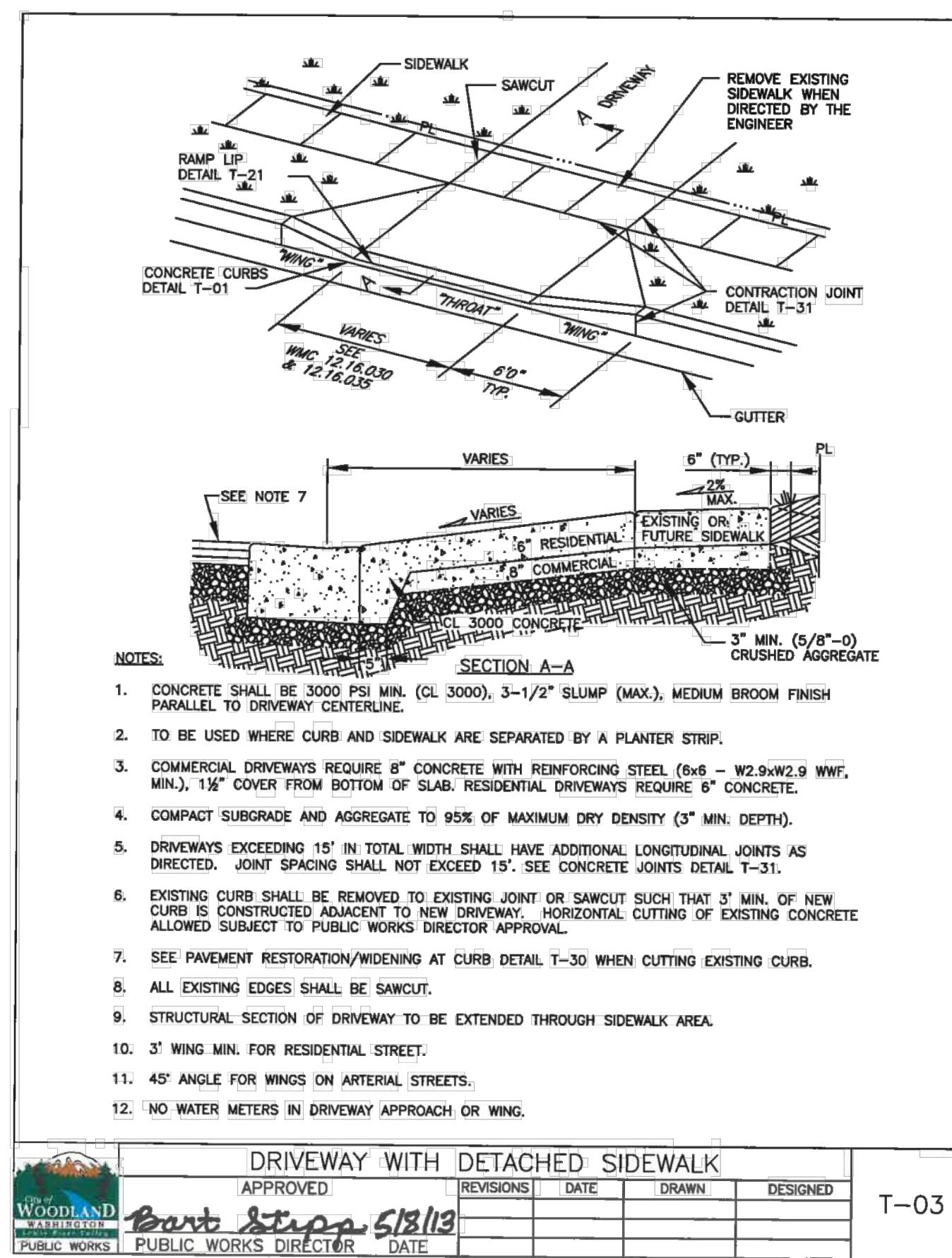
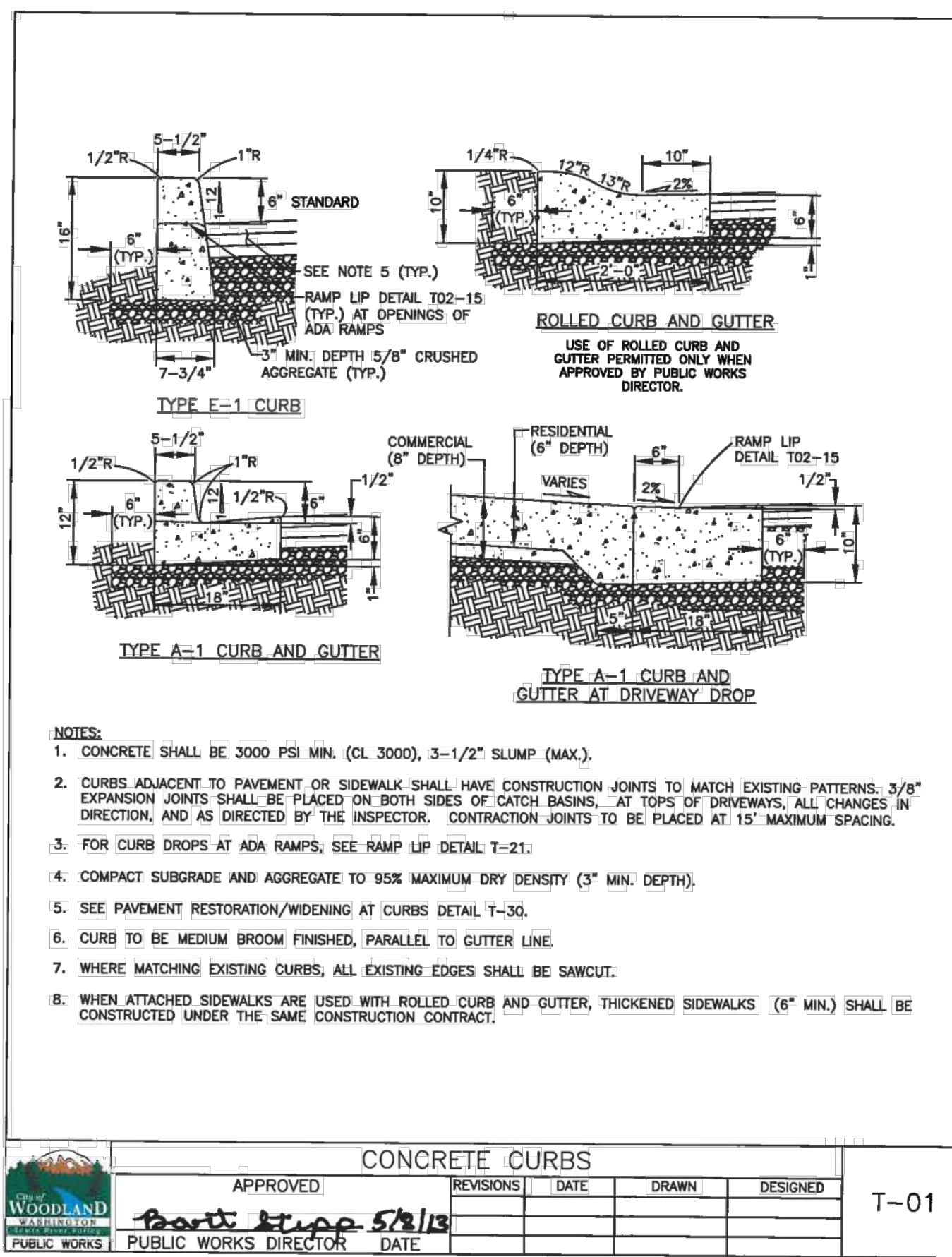
APPROVED	REVISIONS	DATE	DRAWN	DESIGNED	W-20
<i>[Signature]</i>					
PUBLIC WORKS DIRECTOR	DATE				

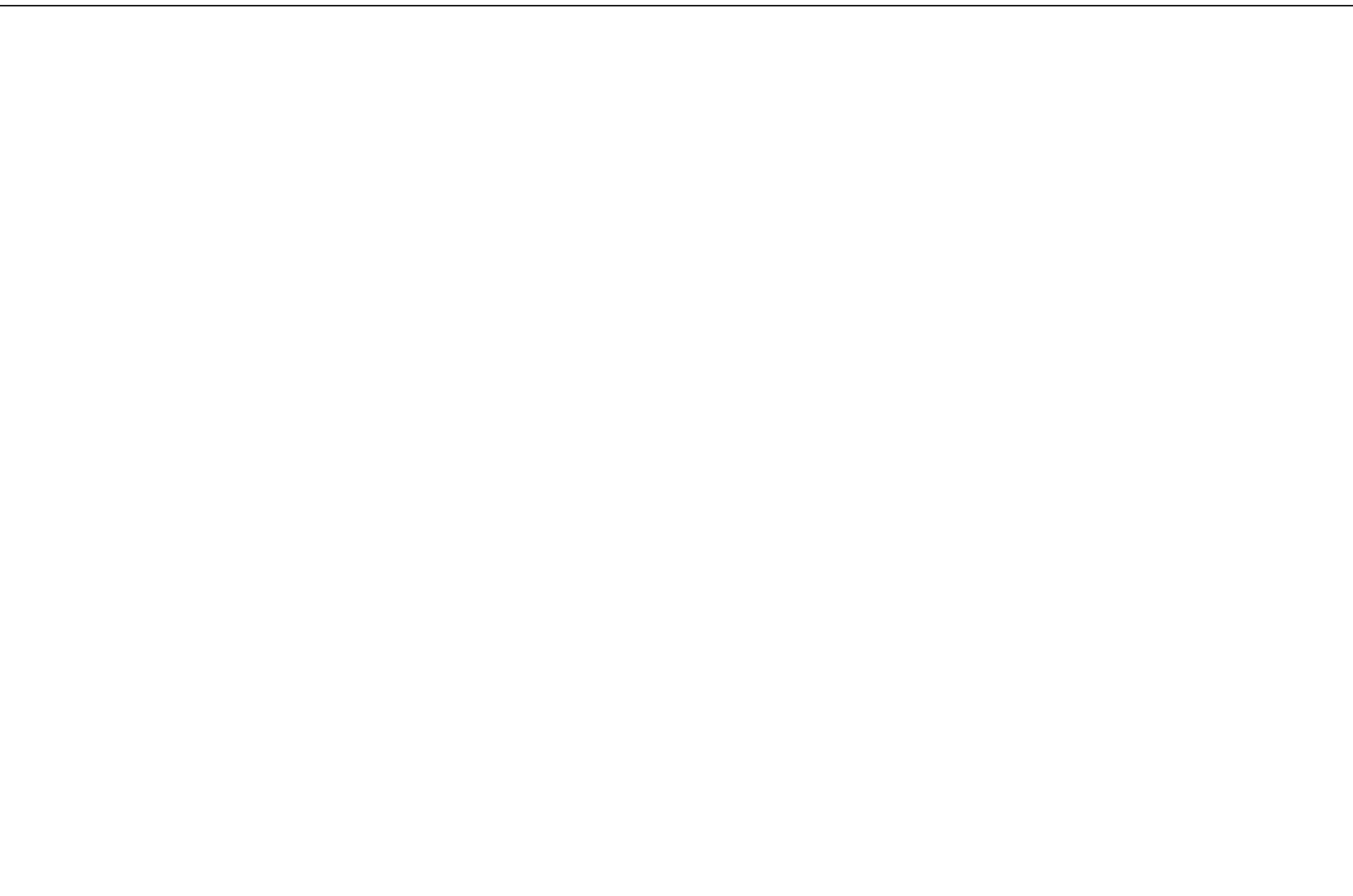
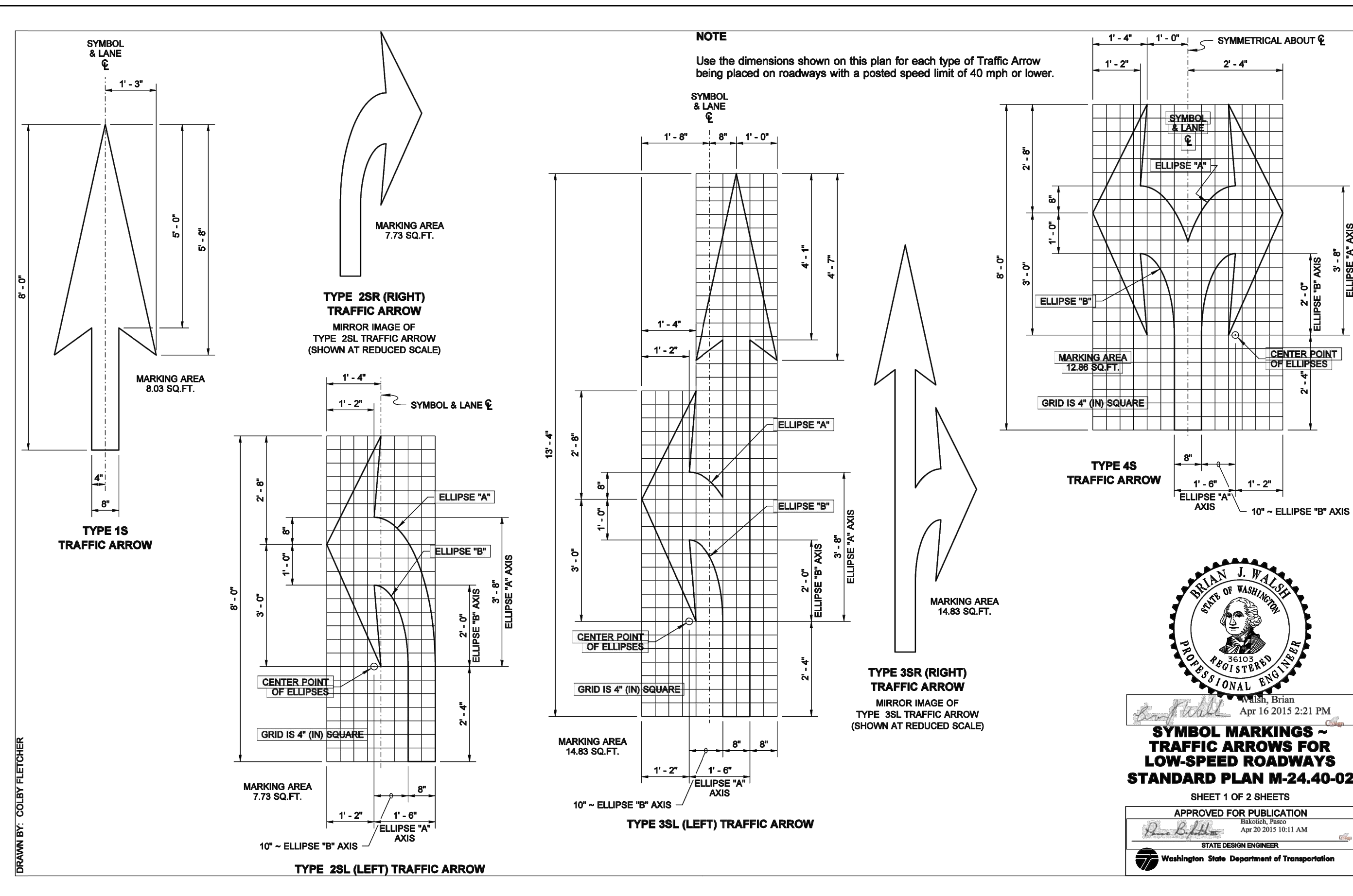
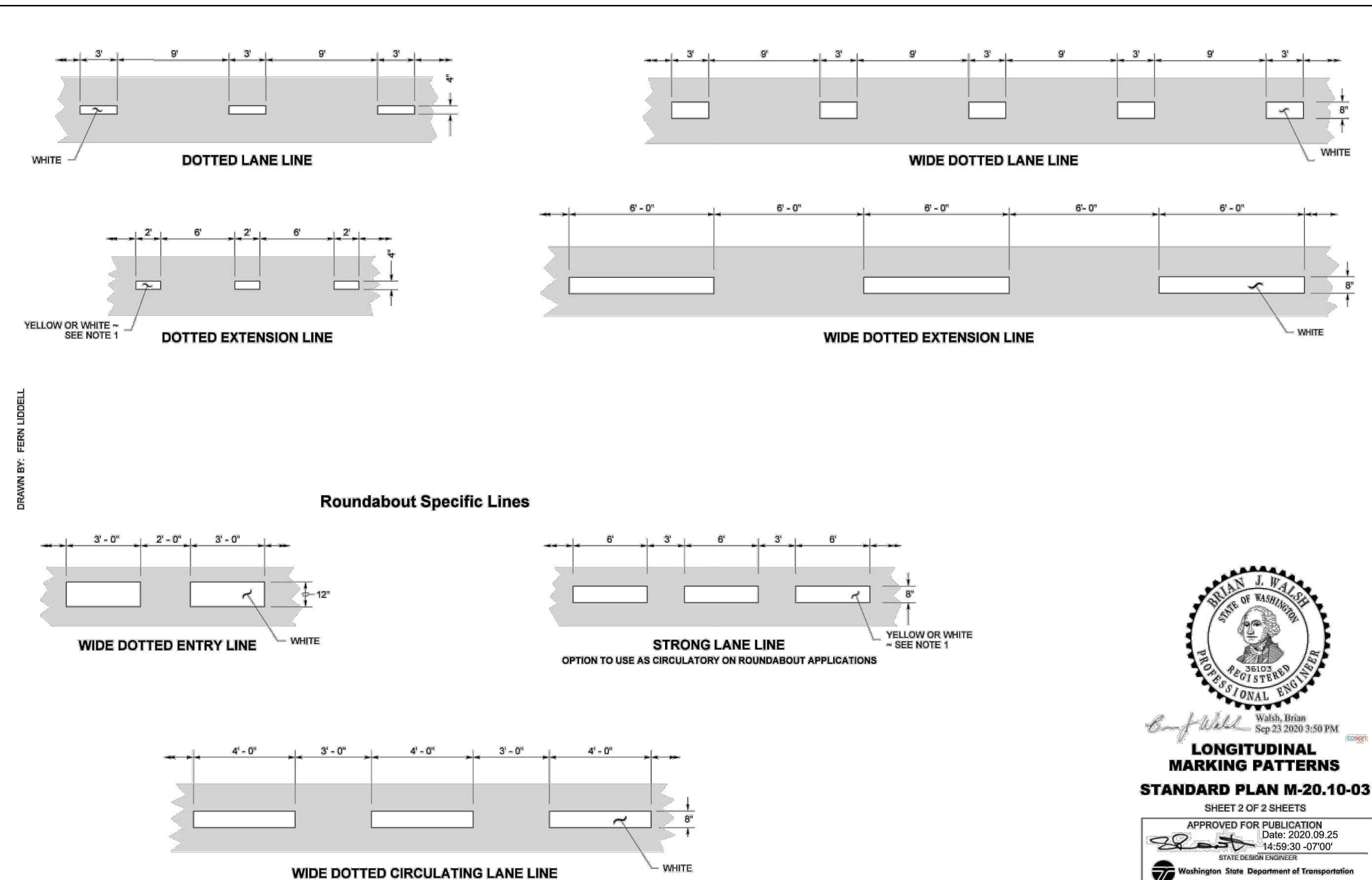
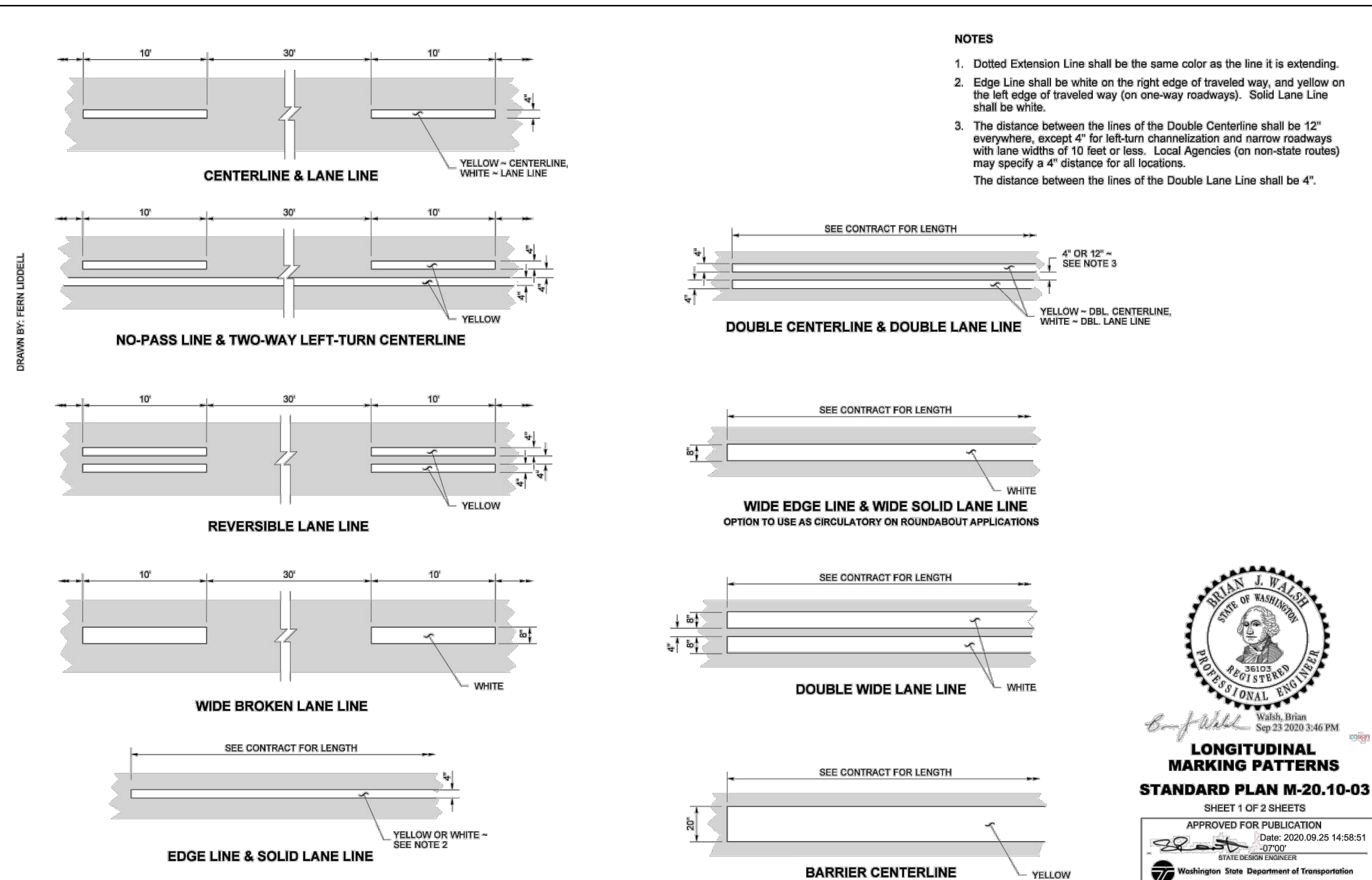
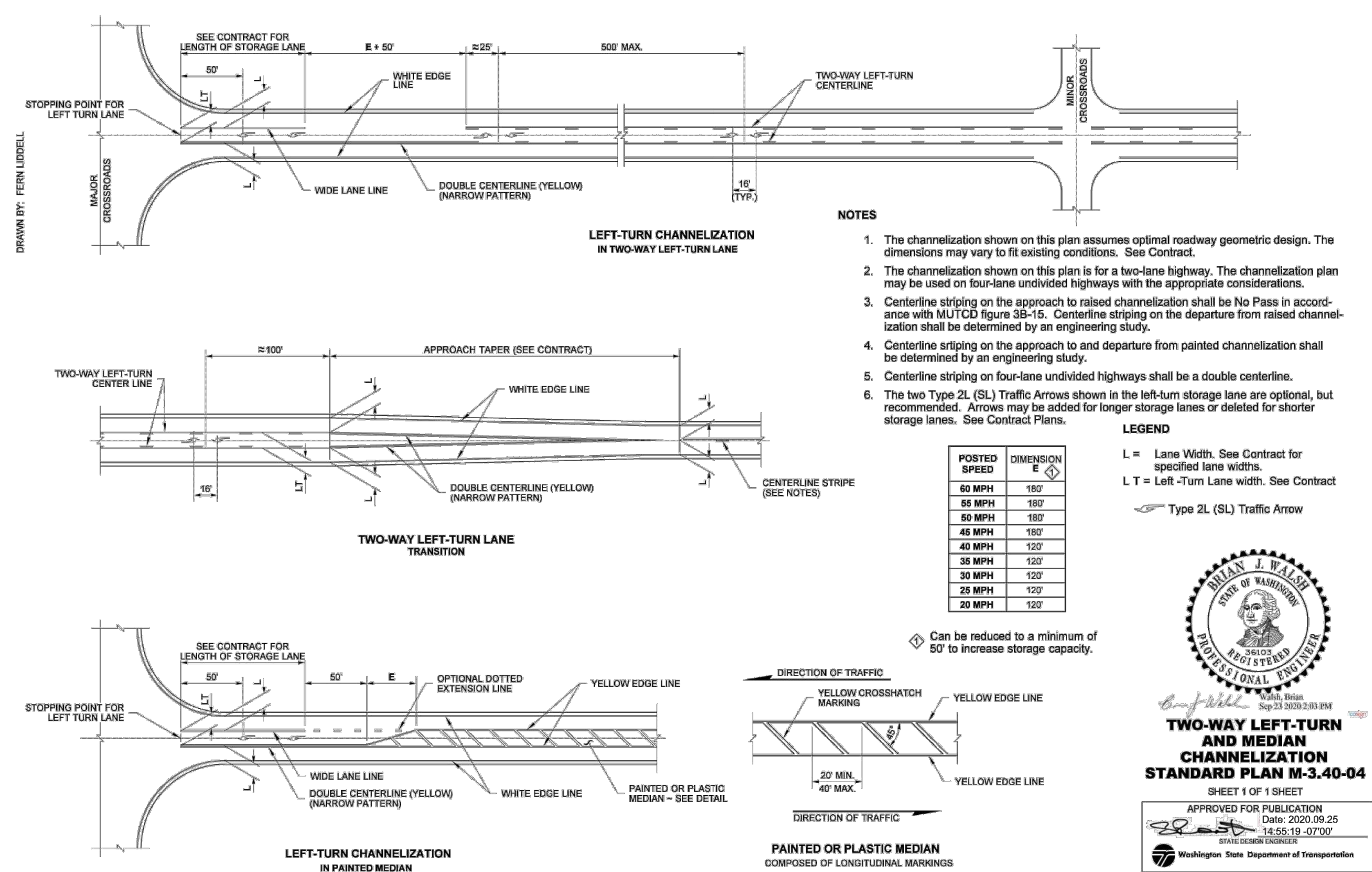
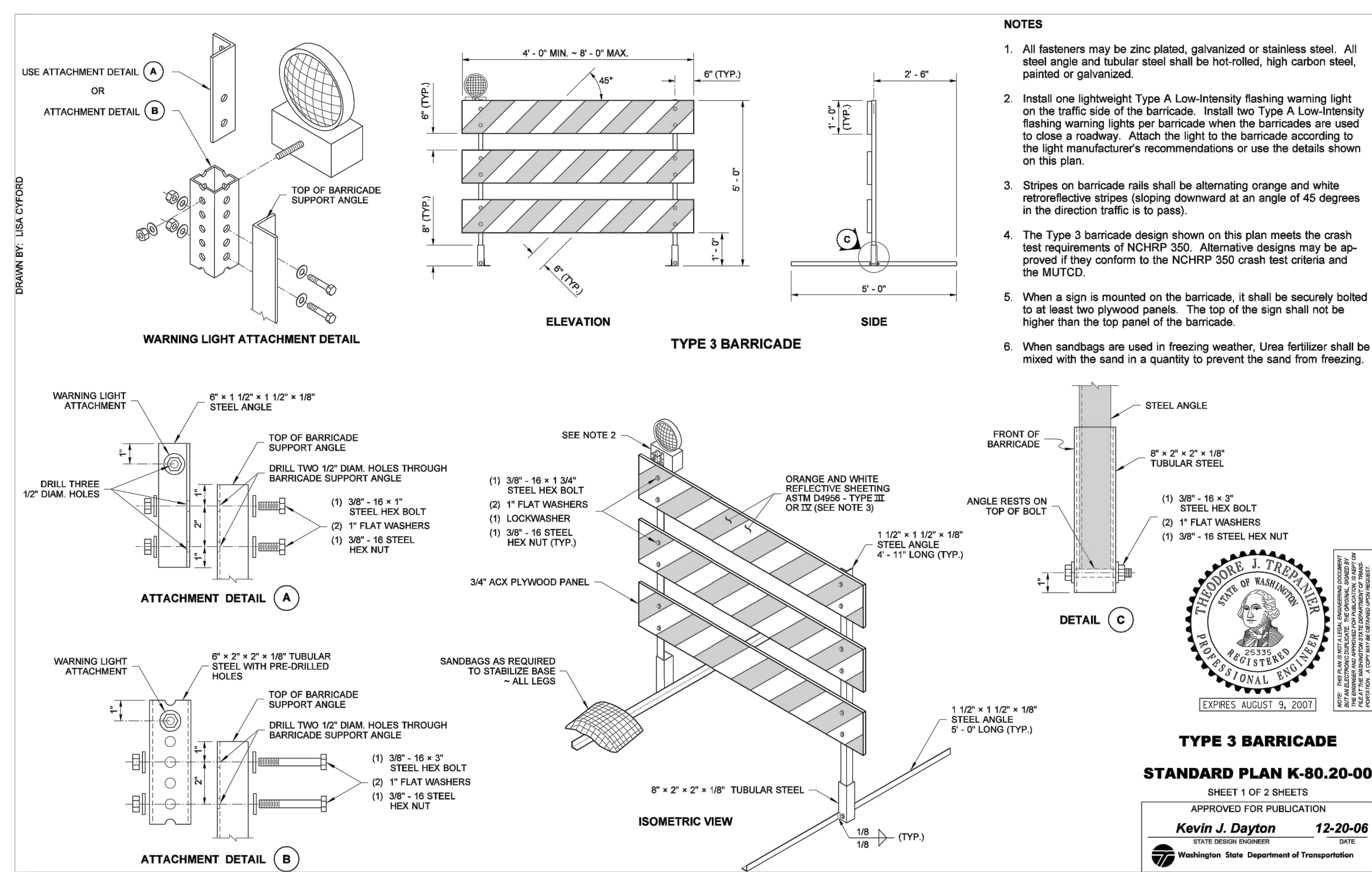
WATER NOTES AND DETAILS  
ROSE WAY INDUSTRIAL PARK  
WOODLAND, WASHINGTON

Harper Houff Peterson  
Righellis Inc.  
ENGINEERS & PLANNERS  
LANDSCAPE ARCHITECTS & SURVEYORS  
1220 Main Street, Suite 150, Vancouver, WA 98660  
phone: 360.750.1111 www.hhp.com



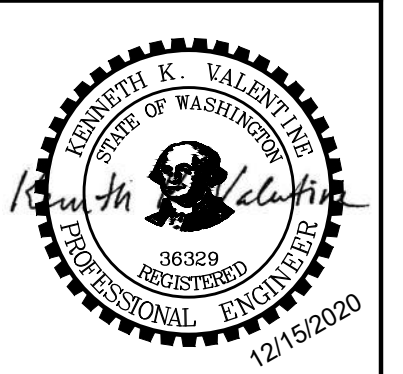
DESIGNED: KKV	DRAWN: HHPR	CHECKED: RAV	DATE: 12/15/2020
REVISIONS	NO.	DATE	DESCRIPTION
1			REVISED PER PORT COMMENTS
SHEET NO. C7.05			
JOB NO. PWL-03			





PUBLIC IMPROVEMENTS NOTES AND DETAILS  
ROSE WAY INDUSTRIAL PARK  
WOODLAND, WASHINGTON

Harper Houf Peterson  
Righellis Inc.  
ENGINEERS & PLANNERS  
LANDSCAPE ARCHITECTS & SURVEYORS  
1220 Main Street, Suite 150, Vancouver, WA 98660  
phone: 360.750.1111 www.hhp.com



DESIGNED:	KKV	DATE:	12/15/2020
DRAWN:	HHPR	DESCRIPTION:	
CHECKED:	RAV	NO.	
DATE:		REVISIONS:	
SHEET NO. C7.07			
JOB NO. PWL-03			

**CONSTRUCTION SPECIFICATIONS**

**GENERAL**  
THE FOLLOWING ARE TO BE USED IN CONJUNCTION WITH THE STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION BY THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION (WSDOT) AS ADOPTED BY THE CITY OF WOODLAND.

**CONCRETE STREET LIGHT FOUNDATION**  
ALL CONCRETE FOUNDATIONS SHALL BE THE SIZE AND CONFIGURATION SHOWN ON THE PLANS, EXCEPT WHERE, IN THE JUDGMENT OF THE ENGINEER, UNSTABLE SOIL CONDITIONS REQUIRE ENLARGEMENT OF THE FOUNDATION. BEFORE PLACING THE CONCRETE, THE CONTRACTOR SHALL BLOCK OUT ANY OTHER UNDERGROUND UTILITIES THAT LIE IN THE EXCAVATED BASE SO THAT THE CONCRETE WILL NOT ADHERE TO THE UTILITY LINE. CONCRETE BASE SHALL BE CLASS 4000 AND BE TRIMMED, BRUSHED, EDED, AND FINISHED IN A WORKMANLIKE MANNER. CONCRETE SHALL BE PROMPTLY CLEANED FROM ANCHOR BOLTS AND CONDUITS AFTER PLACEMENT. ANCHOR BOLTS FOR ALL POLES SHALL BE ARRANGED SO THAT THE POLE'S BRACKET ARM IS PERPENDICULAR TO THE CENTERLINE OF THE ADJACENT ROADWAY RIGHT-OF-WAY. STREET LIGHTS MAY BE INSTALLED AFTER A COMPRESSIVE STRENGTH OF 2,400 PSI HAS BEEN ACHIEVED.

ALL POLES SHALL BE INSTALLED ON LEVELING NUTS SECURED TO THE ANCHOR BOLTS AND WITH LOCKING NUTS ON THE TOP OF THE BASE FLANGE. THE SIDE OF THE POLE SHOWN OPPOSITE THE LOAD SHALL BE PLUMBED BY ADJUSTING THE LEVELING NUTS OR AS OTHERWISE DIRECTED BY THE ENGINEER. THE SPACE BETWEEN THE CONCRETE BASE AND THE BOTTOM OF THE POLE FLANGE SHALL BE FILLED WITH DRY PACK MORTAR TO COMPLETELY FILL THE SPACE UNDER THE FLANGE AND AROUND THE CONDUITS AND BE NEATLY TROWLED TO THE CONTOUR OF THE POLE FLANGE. A PLASTIC DRAIN HOSE (1/2" DIA.) SHALL BE INSERTED THROUGH THE MORTAR TO PROVIDE DRAINAGE FROM THE INTERIOR OF THE POLE BASE AND TRIMMED FLUSH WITH THE INTERIOR AND EXTERIOR SURFACE OF THE MORTAR. DRY PACK MORTAR SHALL CONSIST OF A 1:3 MIXTURE OF CEMENT AND FINE SAND WITH JUST ENOUGH WATER SO THAT THE MIXTURE WILL STICK TOGETHER ON BEING MOULDED INTO A BALL BY HAND AND WILL NOT EXUDE FREE MOISTURE WHEN SO PRESSED.

**CONDUIT**  
ALL CONDUIT SHALL BE SCHEDULE 40 P.V.C. MINIMUM ONE INCH DIAMETER EXCEPT UNDERDRIVEWAYS, AND STREET CROSSINGS. THESE EXCEPTIONS SHALL BE RIGID STEEL CONDUIT AND SHALL BE A MINIMUM OF TWO INCHES IN DIAMETER. ALL ELBOWS SHALL BE RIGID STEEL.

ROD CONDUIT TO BE PROVIDED AS SPECIFIED ON THE PLANS SHALL BE OF HOT DIPPED GALVANIZED STEEL METALLIC CONDUIT CONFORMING TO THE REQUIREMENT OF THE NATIONAL ELECTRICAL CODE.

ALL UNDERGROUND CONDUIT SHALL BE INSTALLED A MINIMUM OF 24" BELOW GRADE. IN PAVED DRIVEWAY OR ROADWAY AREAS, ELECTRICAL CONDUIT SHOULD BE INSTALLED BY PUSHING OR BORING METHODS.

**GROUNDING**  
ALL POLES, METAL CONDUITS AND CABINETS IN THE SAME AREA COVERED BY THE SAME POWER SERVICE SHALL BE MADE MECHANICALLY AND ELECTRICALLY SECURE FOR A CONTINUOUS GROUNDING SYSTEM IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS. BONDING JUMPERS SHALL BE PROVIDED AND INSTALLED BY THE CONTRACTOR IN ACCORDANCE WITH WSDOT STANDARD PLAN J-9A TO ALL #8 BARE METAL CONDUITS IN THE JUNCTION BOX. GROUNDING OF CONDUIT AND GROUND WIRE AT THE SERVICE POINT TO THE PUD SERVICE GROUND ON THE PUD POWER POLE SHALL BE ACCOMPLISHED AS REQUIRED UNDER THE NATIONAL ELECTRICAL CODE.

**CATALOG CUTS**  
PRIOR TO THE BEGINNING OF CONSTRUCTION, CATALOG CUTS OF THE FOLLOWING ITEMS SHALL BE SUBMITTED AND APPROVED BY THE PUBLIC WORKS DIRECTOR: 1. STREET LIGHT STANDARDS, 2. LUMINAIRES, 3. JUNCTION BOXES, 4. WYE AND IN-LINE CONNECTORS, 5. SERVICE CABINET, 6. IN-LINE FUSE HOLDERS, 7. CONDUIT & WIRE.

**CRITICAL INSPECTION POINTS**  
THE ILLUMINATION SYSTEM WILL BE INSPECTED BY THE PUBLIC WORKS DEPARTMENT. THE TELEPHONE NUMBER IS: 509-575-7999.

THE FOLLOWING ARE THE CRITICAL INSPECTION POINTS. NO WORK SHALL BE DONE UNTIL INSPECTION IS COMPLETED.

**WIRING**  
1. CHECK OF CONDUIT DEPTH. NO TRENCHING SHALL BE FILLED UNLESS THE DEPTH OF CONDUIT VERIFIED.  
2. SERVICE. THE SERVICE SHALL BE INSPECTED AND APPROVED BY THE INSPECTOR.  
3. WIRING. THE WIRING, SPACERS, GROUNDING, AND FUSING SHALL BE INSPECTED AND APPROVED BY THE INSPECTOR.

**POLES**  
1. POLE LOCATIONS. THE POLE LOCATIONS SHALL BE APPROVED BY THE PUBLIC WORKS DEPARTMENT PRIOR TO EXCAVATION OF THE POLE BASES.  
2. POLE BASES. THE POLE BASES SHALL BE INSPECTED AND APPROVED PRIOR TO THE POURING OF THE CONCRETE.

STREET LIGHTING - CONSTRUCTION NOTES					
APPROVED	REVISIONS	DATE	DRAWN	DESIGNED	T-40
WOODLAND					
PUBLIC WORKS					

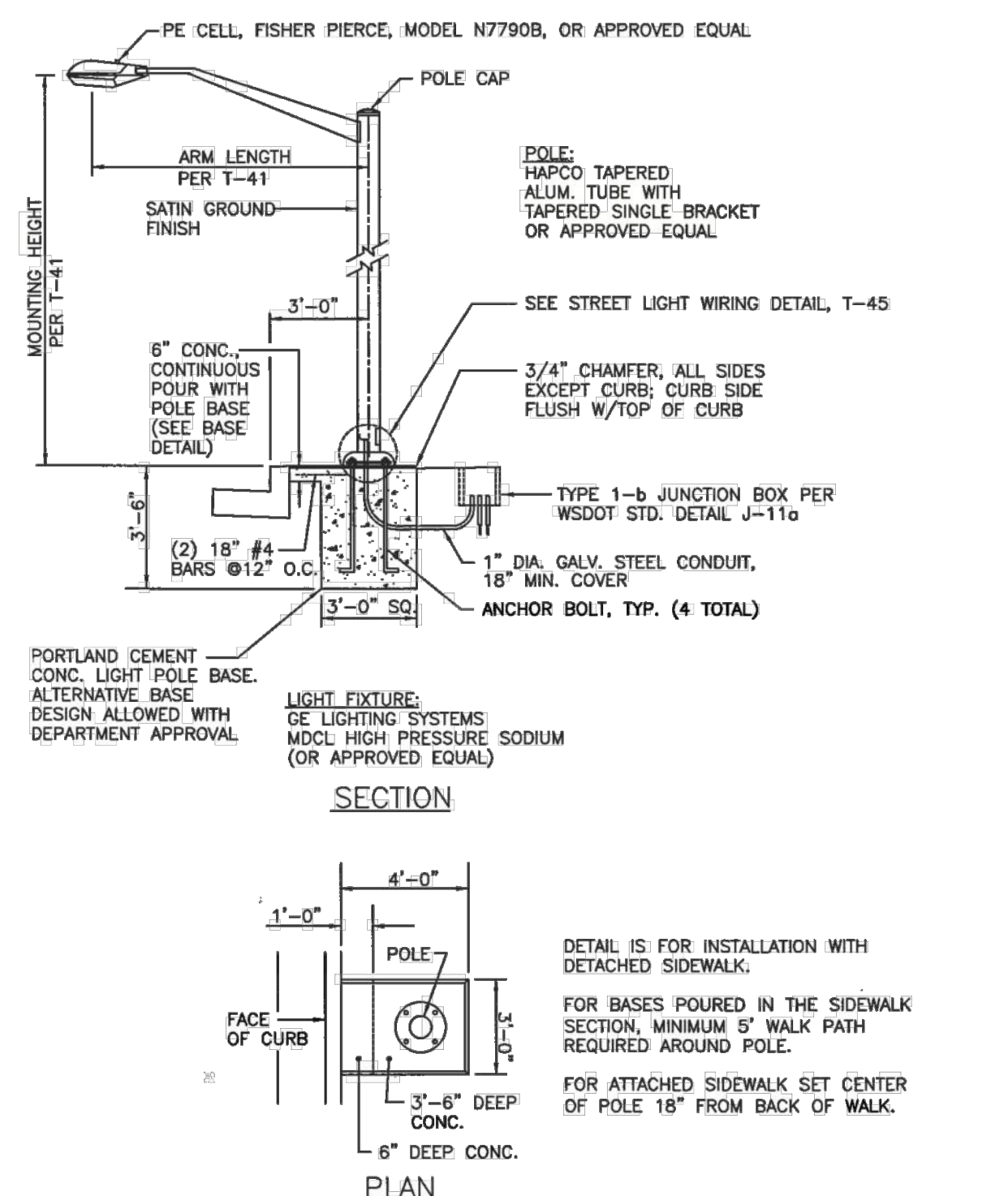
**DESIGN SPECIFICATIONS**

- STREET LIGHT LOCATIONS ARE TO BE PLACED ON THE PROPERTY LINE WHENEVER POSSIBLE. LIGHTING FACILITIES SHALL BE LOCATED WITHIN PUBLIC RIGHT-OF-WAY OR AN EASEMENT DEDICATED TO THE CITY OF WOODLAND.
- THE FOLLOWING TABLE SHALL BE FOLLOWED FOR STREET LIGHT DESIGN:

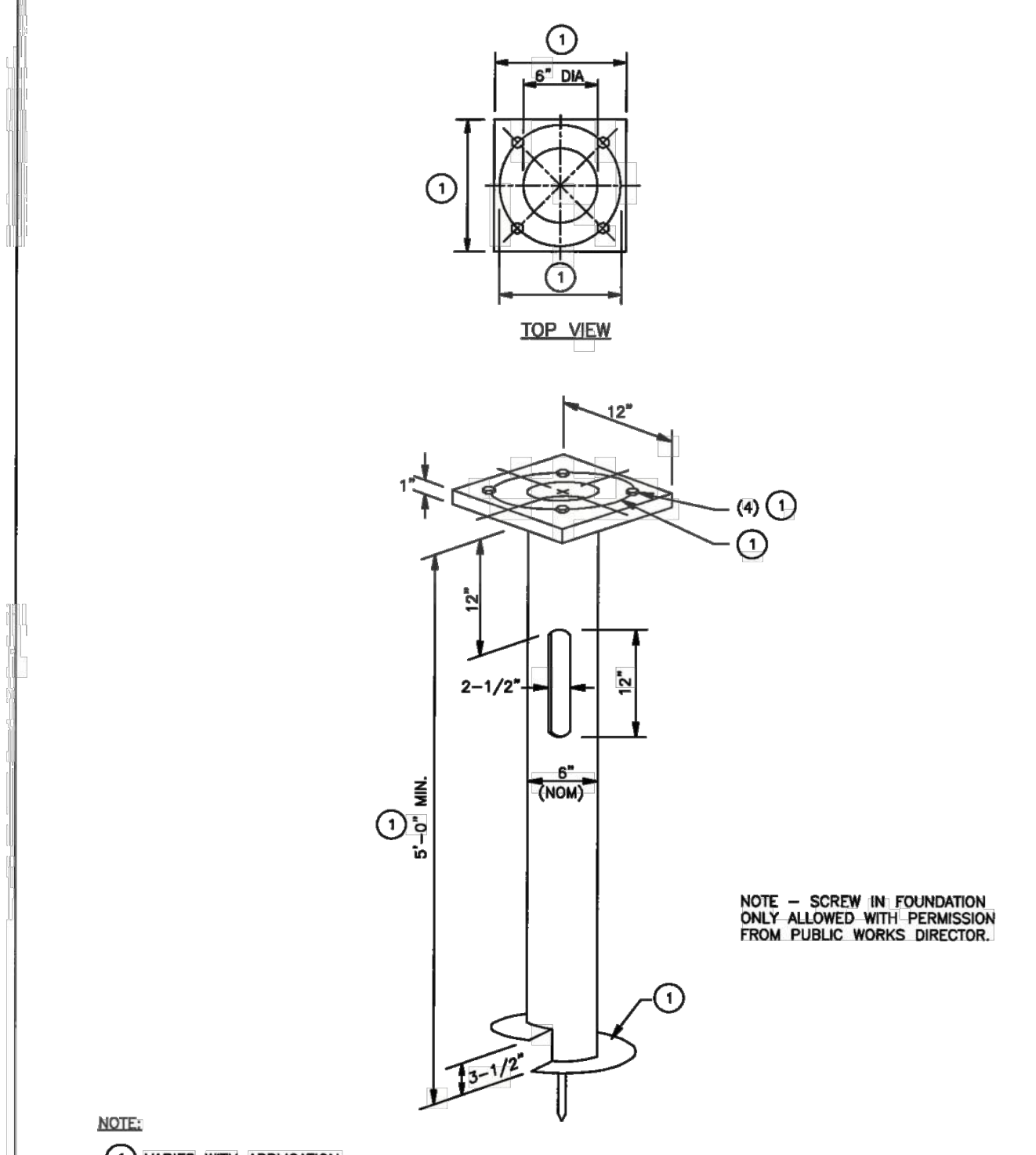
ROADWAY AND AREA CLASSIFICATION	AVERAGE LUMINANCE	LUMINANCE UNIFORMITY	
		L. AVG. TO L. MIN.	L. MAX. TO L. MIN.
ARTERIAL	COMMERCIAL	1.0	3 TO 1
	INTERMEDIATE	0.8	3 TO 1
	RESIDENTIAL	0.6	3.5 TO 1
COLLECTOR	COMMERCIAL	0.8	3 TO 1
	INTERMEDIATE	0.6	3.5 TO 1
	RESIDENTIAL	0.4	4 TO 1
LOCAL	COMMERCIAL	0.6	5 TO 1
	INTERMEDIATE	0.5	6 TO 1
	RESIDENTIAL	0.3	6 TO 1

CLASSIFICATION	MOUNTING HEIGHT	WATTAGE	ARM LENGTH
ARTERIAL	35'	200 W	8'
COLLECTOR	30'	200 W	6'
LOCAL	25'	100 W	6'

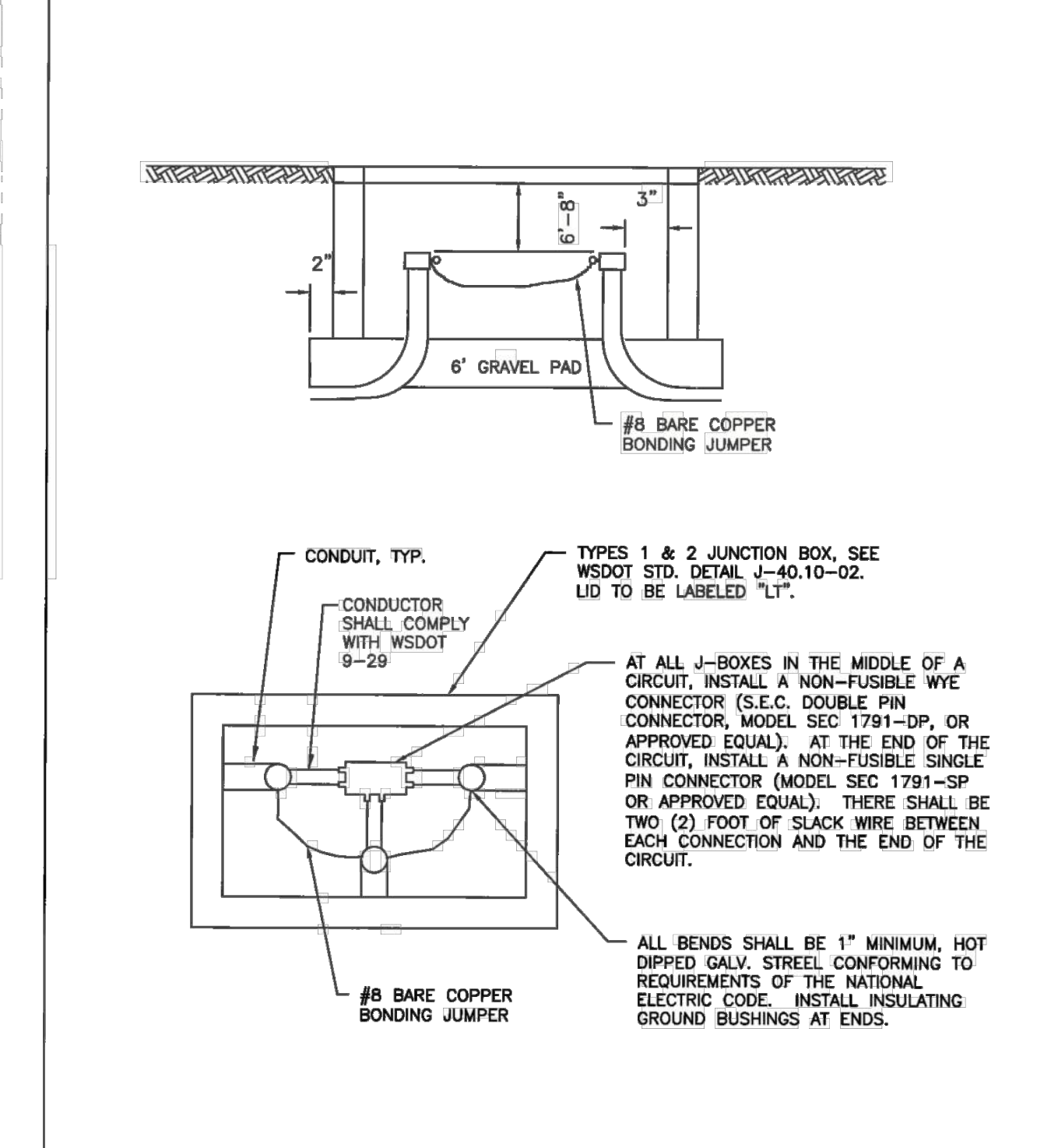
ILLUMINATION SPECIFICATIONS					
APPROVED	REVISIONS	DATE	DRAWN	DESIGNED	T-41
WOODLAND					
PUBLIC WORKS					



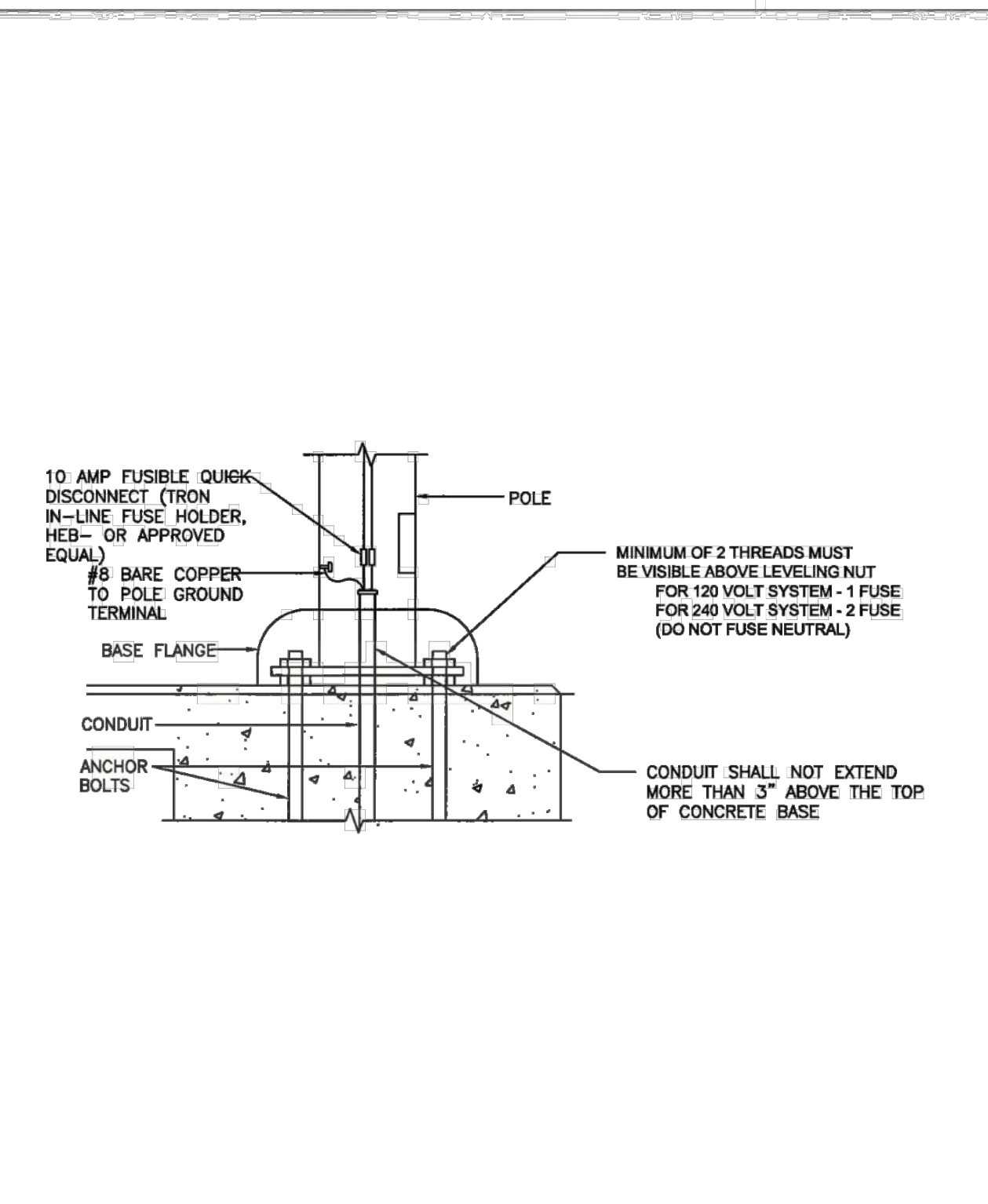
STREET LIGHT POLE					
APPROVED	REVISIONS	DATE	DRAWN	DESIGNED	T-42
WOODLAND					
PUBLIC WORKS					



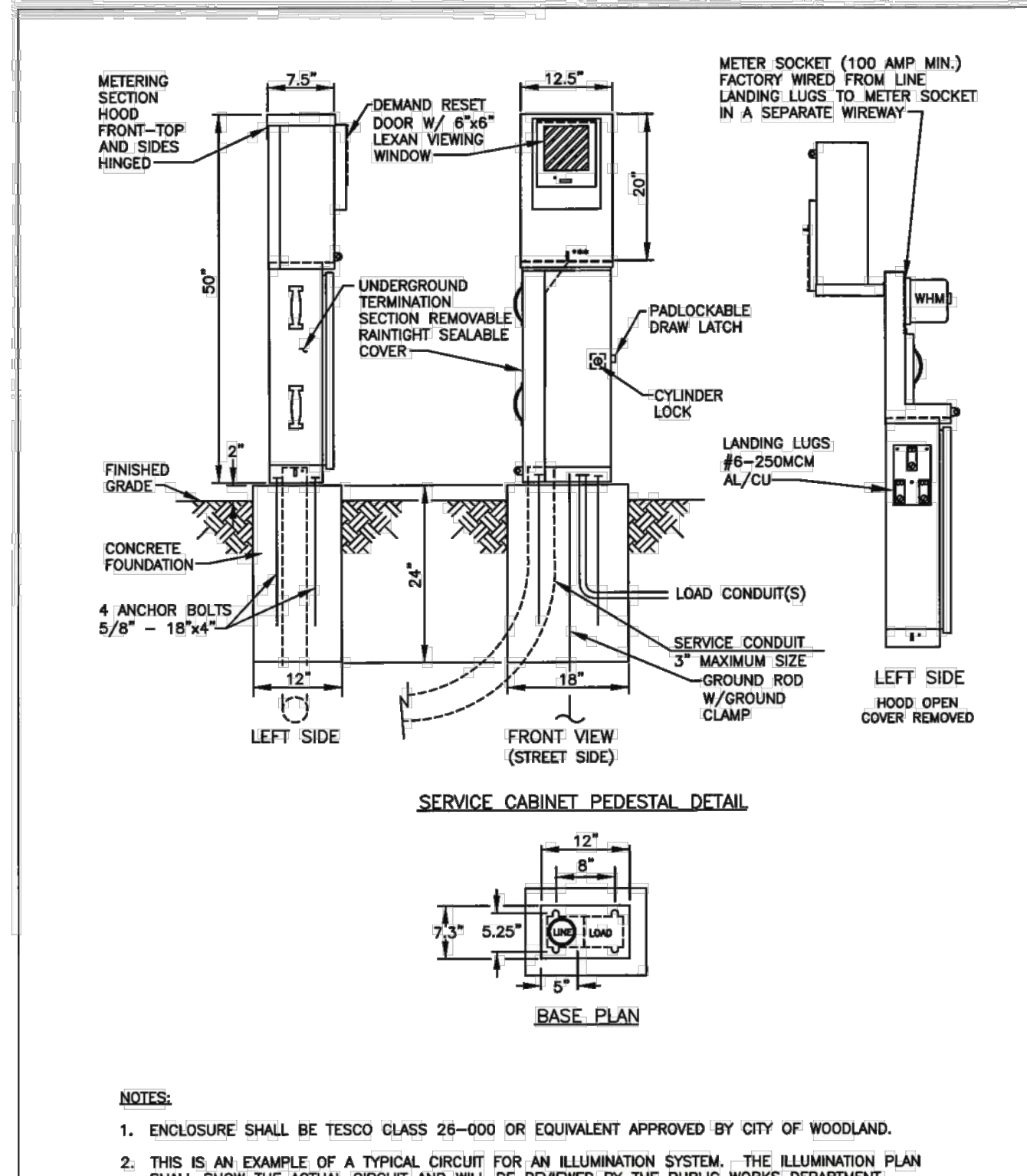
SCREW-IN FOUNDATION FOR STREET LIGHTING					
APPROVED	REVISIONS	DATE	DRAWN	DESIGNED	T-43
WOODLAND					
PUBLIC WORKS					



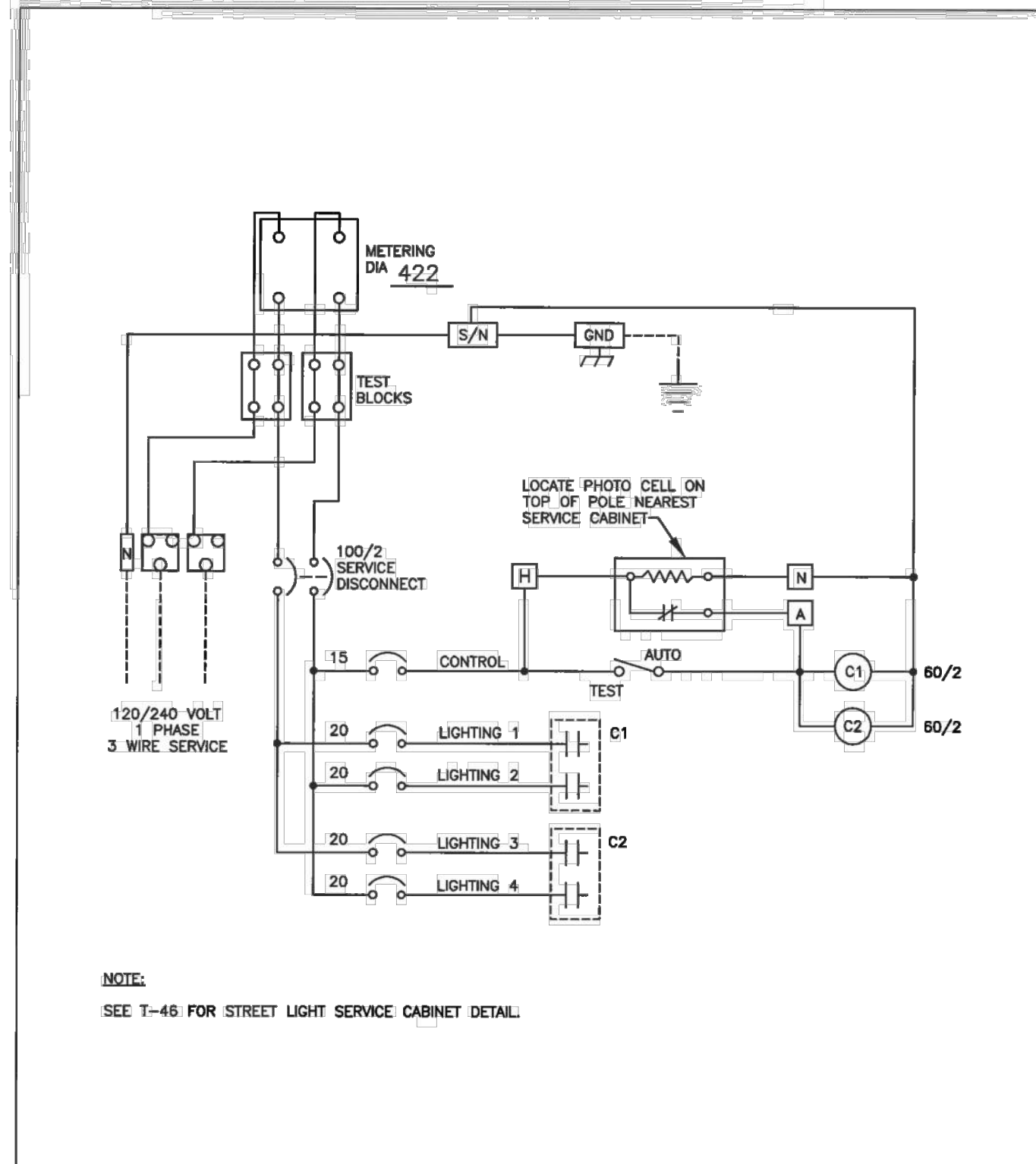
JUNCTION BOX					
APPROVED	REVISIONS	DATE	DRAWN	DESIGNED	T-44
WOODLAND					
PUBLIC WORKS					



STREET LIGHT WIRING					
APPROVED	REVISIONS	DATE	DRAWN	DESIGNED	T-45
WOODLAND					
PUBLIC WORKS					



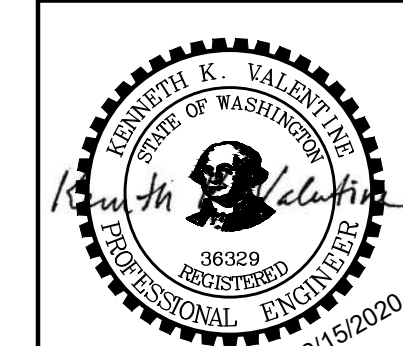
STREET LIGHT SERVICE CABINET					
APPROVED	REVISIONS	DATE	DRAWN	DESIGNED	T-46
WOODLAND					
PUBLIC WORKS					



STREET LIGHT SERVICE WIRING DIAGRAM					
APPROVED	REVISIONS	DATE	DRAWN	DESIGNED	T-47
WOODLAND					
PUBLIC WORKS					

PUBLIC IMPROVEMENTS NOTES AND DETAILS  
ROSE WAY INDUSTRIAL PARK  
WOODLAND, WASHINGTON

Harper Houff Peterson Rignellis Inc.  
ENGINEERS & PLANNERS  
LANDSCAPE ARCHITECTS & SURVEYORS  
1320 Main Street, Suite 150, Vancouver, WA 98660  
Phone: 360.750.1111 www.hhp.com



DESIGNED:	KKV	DATE:	12/15/2020
DRAWN:	HHPR		
CHECKED:	RAV		
DATE:			
R E V I S I O N S			
SHEET NO. C7.08			
JOB NO. PWL-03			



## STRUCTURAL NOTES

**GENERAL:**

1. THE CONTRACTOR SHALL VERIFY AND COORDINATE THE DIMENSIONS AMONG ALL DRAWINGS PRIOR TO PROCEEDING WITH ANY WORK OR FABRICATION.
2. THE CONTRACTOR IS RESPONSIBLE FOR ALL DEMOLITION AND CONSTRUCTION METHODS, TECHNIQUES, SEQUENCING, AND SAFETY REQUIRED FOR THE WORK.
3. THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN AND CONSTRUCTION OF ALL ERECTION BRACING, FORM WORK, AND TEMPORARY SHORING REQUIRED FOR THE WORK.
4. THESE NOTES SET MINIMUM STANDARDS FOR CONSTRUCTION. THE DRAWINGS GOVERN OVER THE STRUCTURAL NOTES TO THE EXTENT SHOWN.
5. DETAILS SHOWN ON THE DRAWINGS ARE INTENDED TO APPLY AT ALL SIMILAR CONDITIONS AND LOCATIONS.
6. DO NOT SCALE INFORMATION FROM STRUCTURAL DRAWINGS.

**DESIGN CODE:**

1. 2020 AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS
2. ALL REFERENCE TO OTHER CODES AND STANDARDS (ACI, ASTM, ETC...) SHALL BE PER THE LATEST OR MOST CURRENT EDITION AVAILABLE.
3. DESIGN LOADS:

TRAFFIC SURCHARGE ..... = AS SHOWN IN DETAIL  
 FRICTION ANGLE ..... = 38 DEGREES  
 SOIL UNIT WEIGHT ..... = 135 PCF  
 ACTIVE EARTH PRESSURE ..... = 32 PCF  
 PASSIVE EARTH PRESSURE ..... = 568 PCF  
 SEISMIC ..... DESIGN CATEGORY D, SITE CLASS F  
 PGA = .40g

**ULTRABLOCKS:**

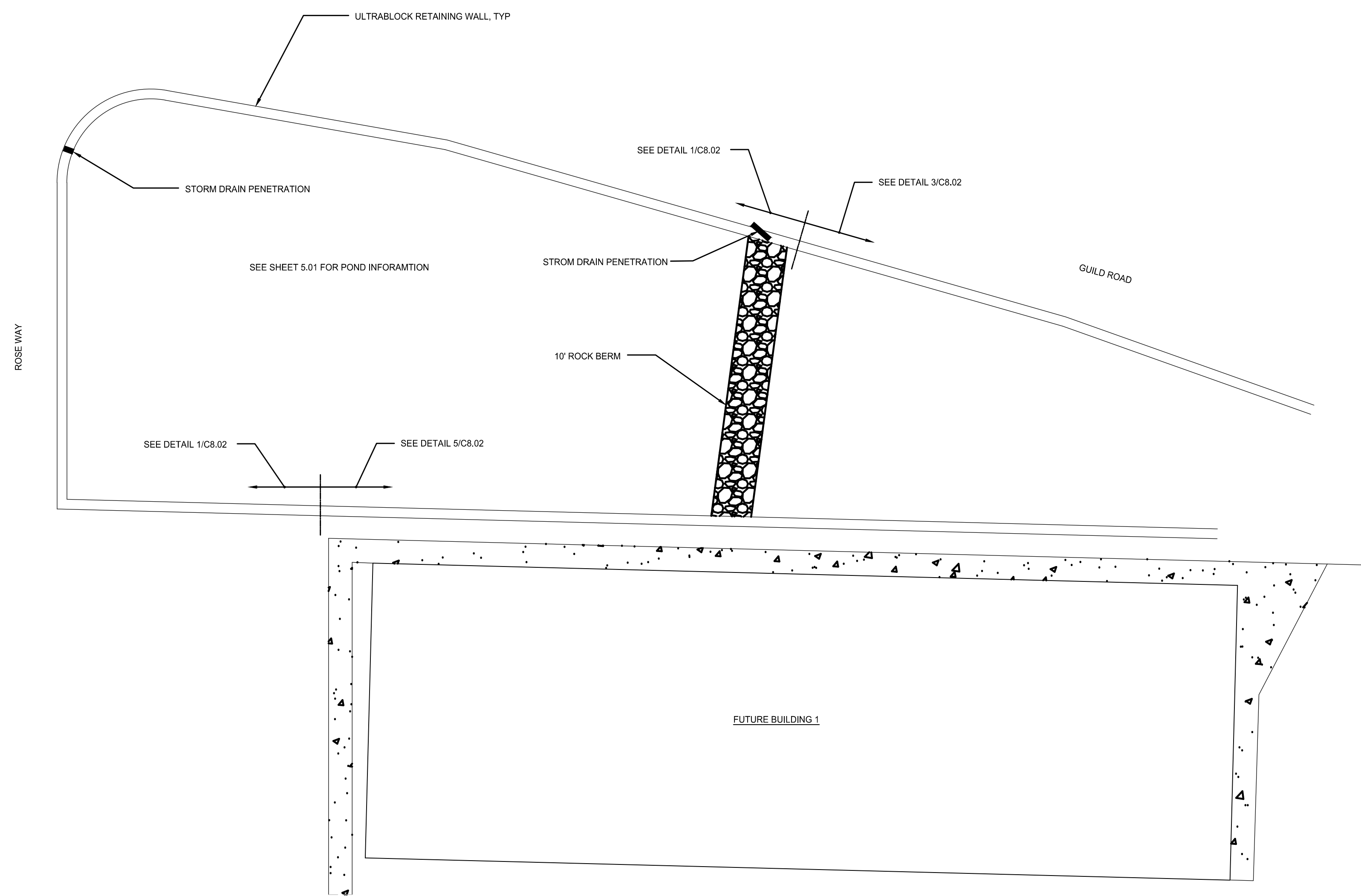
1. ALL SOIL & FOUNDATION PREPARATIONS SHALL CONFORM TO THE GEOTECHNICAL REPORT ISSUED BY COLUMBIA WEST DATED JUNE 15, 2017.
2. ALL BLOCKS SHALL CONFORM WITH ULTRABLOCKS STANDARD PLAN FACE UNITS, AND CONFORM WITH ALL MANUFACTURERS SPECIFICATION AND INSTALLATION RECOMMENDATIONS.

**SPECIAL INSPECTION:**

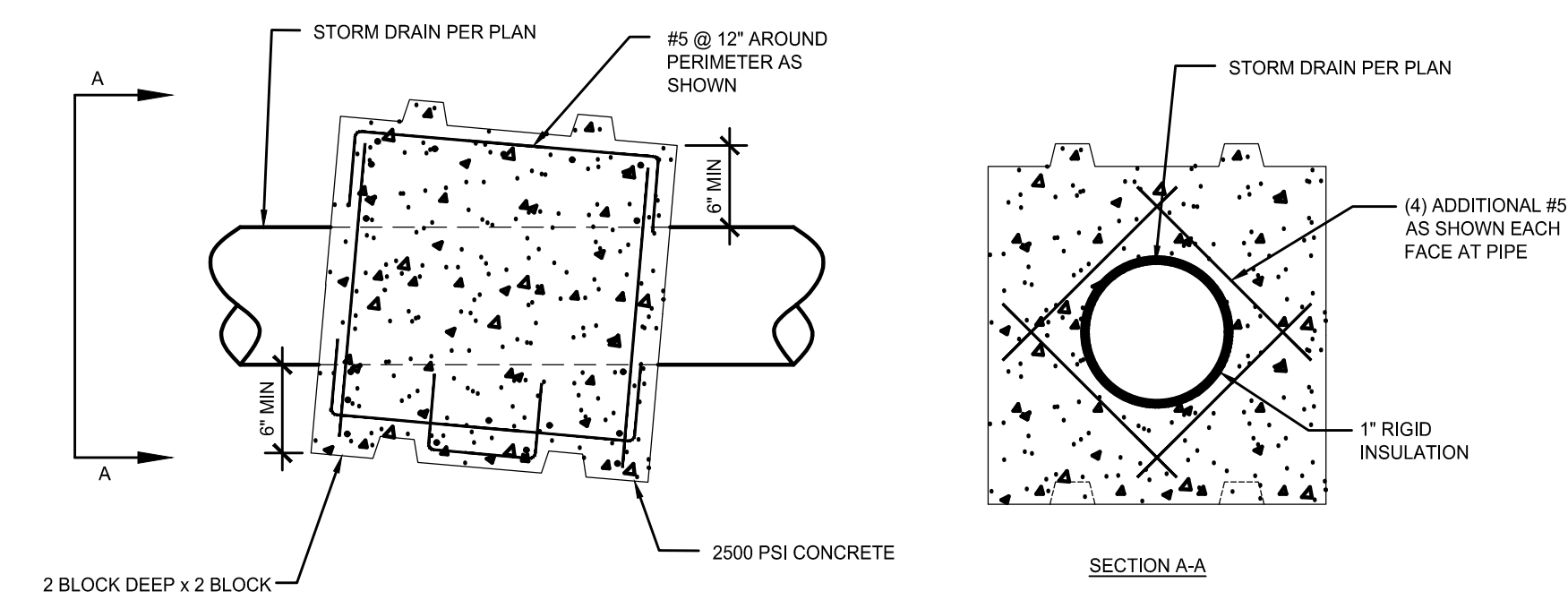
INSPECTOR IS TO BE CONTRACTED BY OWNER, ENGINEER OR ARCHITECT PER OSSC CODE REQUIREMENT AND LOCAL ORDINANCES. A PRE-CONSTRUCTION MEETING SHALL TAKE PLACE PRIOR TO FOUNDATION INSTALLATION. THE CONTRACTOR, ARCHITECT, ENGINEER AND INSPECTOR SHALL ATTEND SPECIAL INSPECTIONS SHALL BE PERFORMED ON ON THE FOLLOWING WORK:

1. SUBGRADE:
  - A. OBSERVATION OF SITE PREPARATION, GRADING PLACEMENT AND COMPACTION OF OPERATIONS. (PERIODIC)

IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE INSPECTOR, 48 HR. MINIMUM NOTICE), FOR INSPECTION SERVICES. THE INSPECTOR SHALL BE PRESENT AT THE PRE-CONSTRUCTION MEETING TO COORDINATE WORK WITH THE CONTRACTOR, ENGINEER AND OWNER. ALL INSPECTORS SHALL BE CERTIFIED TO PERFORM NECESSARY INSPECTION PER OSSC, ACI, AWS, OR OTHER APPROVED GOVERNING INSTITUTION. SUBMIT COPIES OF THE SPECIAL INSPECTION REPORTS TO THE BUILDING OFFICIAL AND ENGINEER OF RECORD FOR REVIEW.

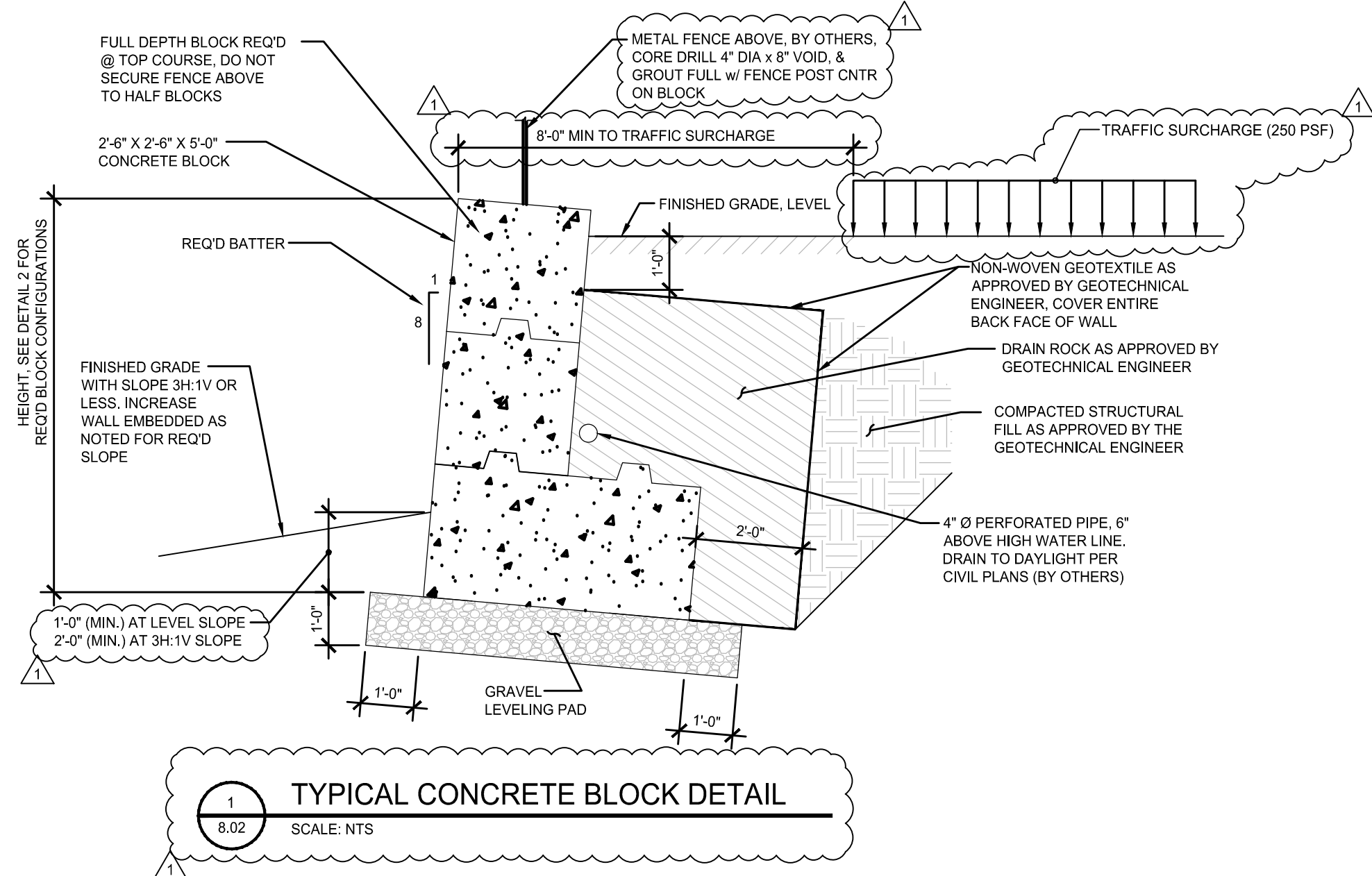


**WET POND REFERENCE PLAN**  
 SCALE: NTS

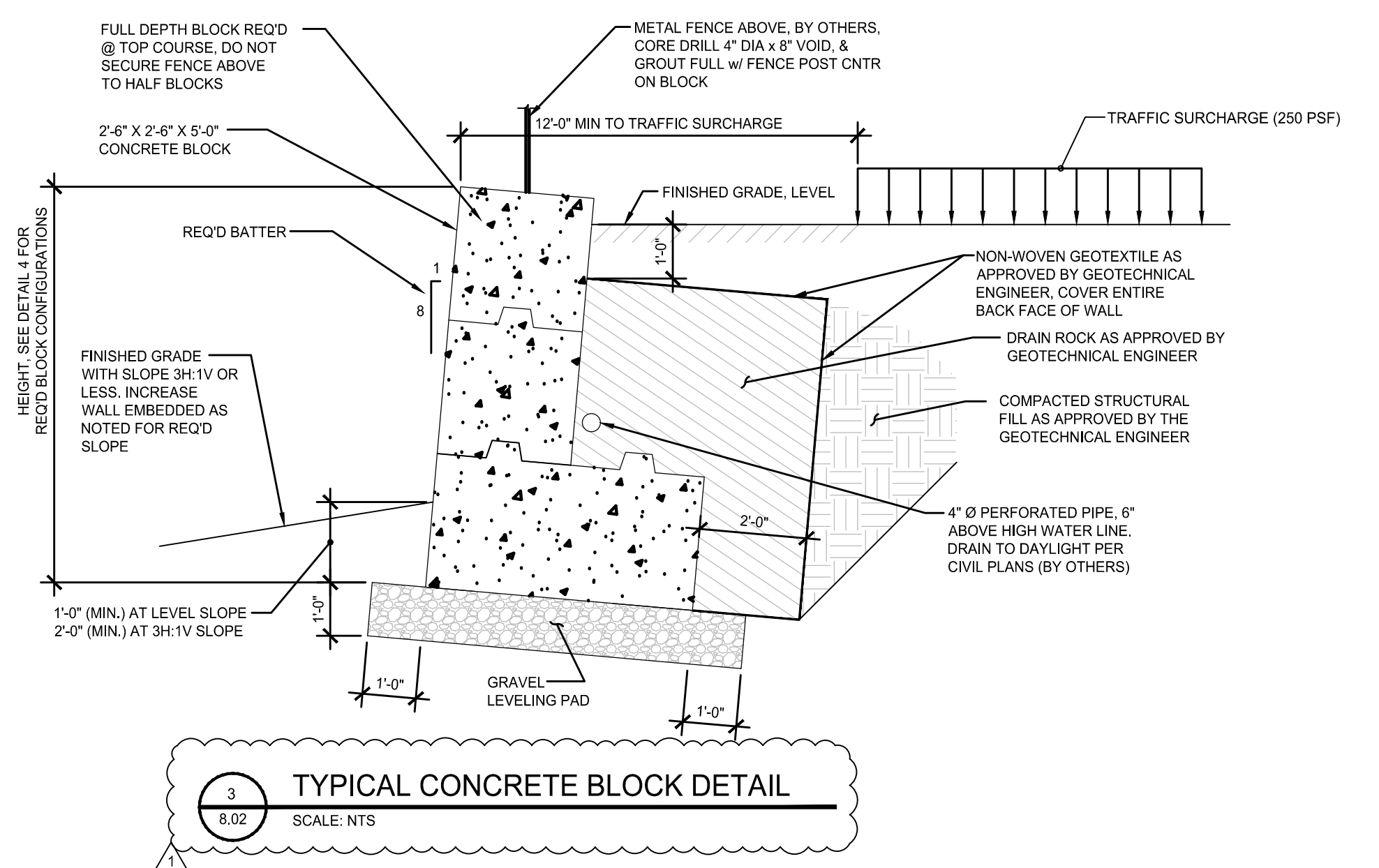


**STORM DRAIN PENETRATION DETAIL**  
 SCALE: NTS

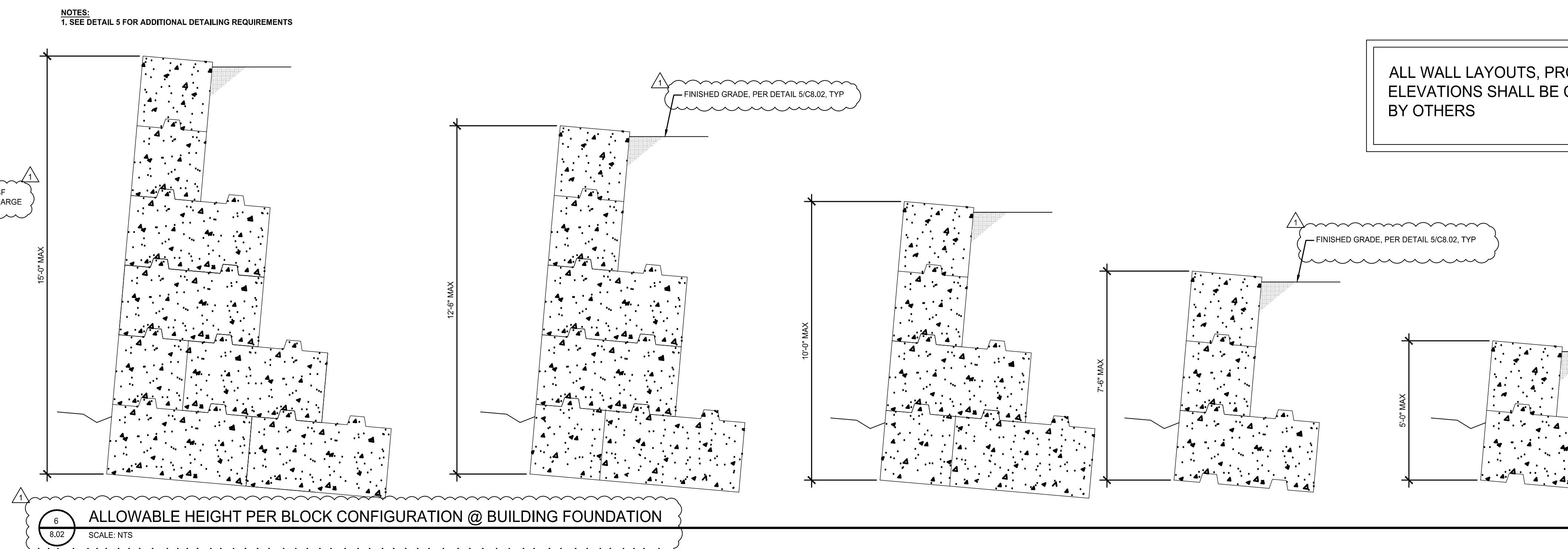
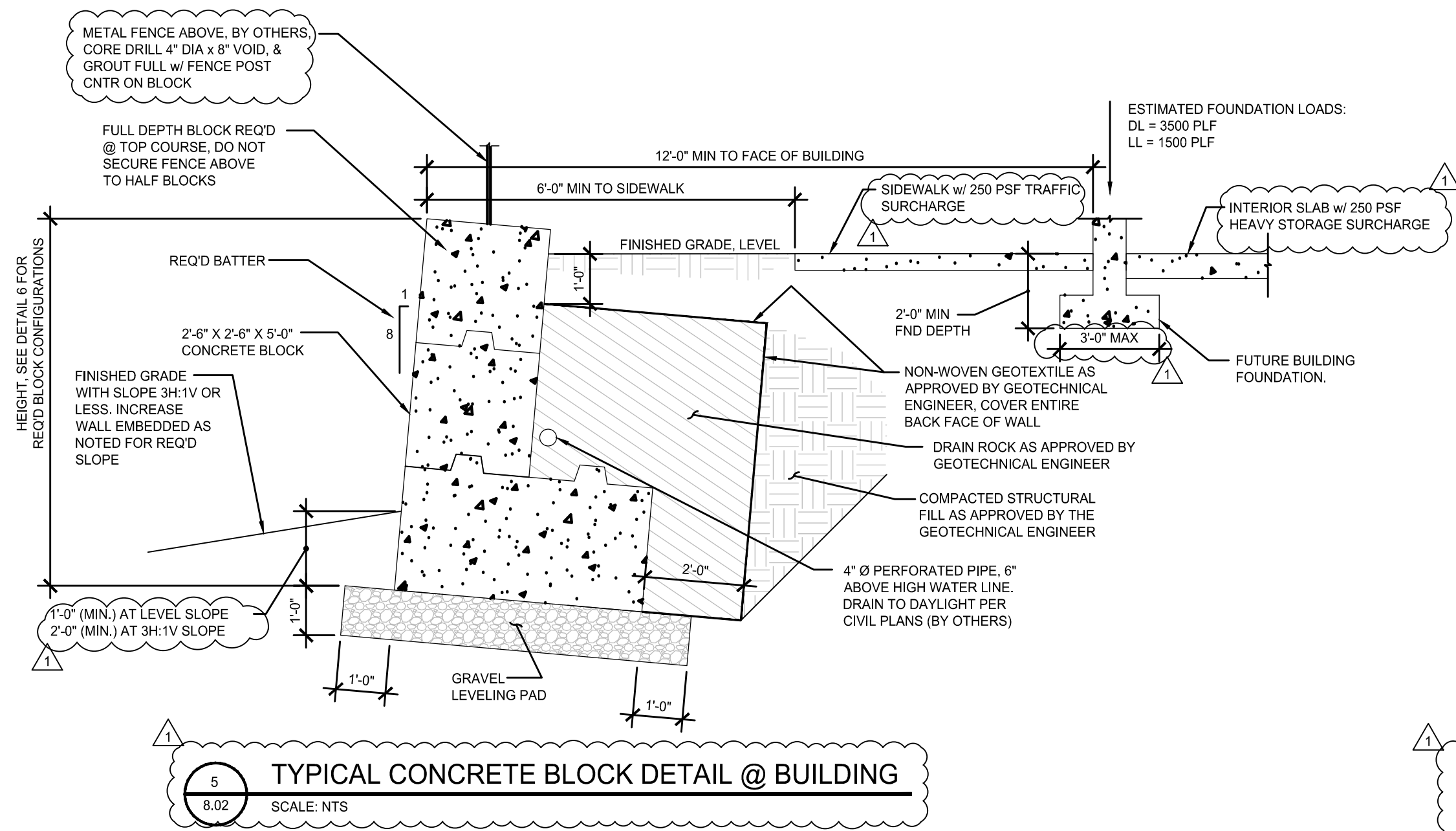
DESIGNED:	JMD	DRAWN:	HHPR	CHECKED:	RAV	DATE:	12/15/2020
REVISIONS							
NO.	DATE	DESCRIPTION					
1	3/23/2021	REVISED PER BUILDING DEPARTMENT COMMENTS					



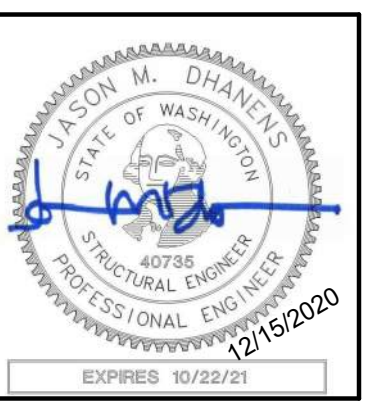
ALL WALL LAYOUTS, PROFILES & ELEVATIONS SHALL BE COMPLETED BY OTHERS



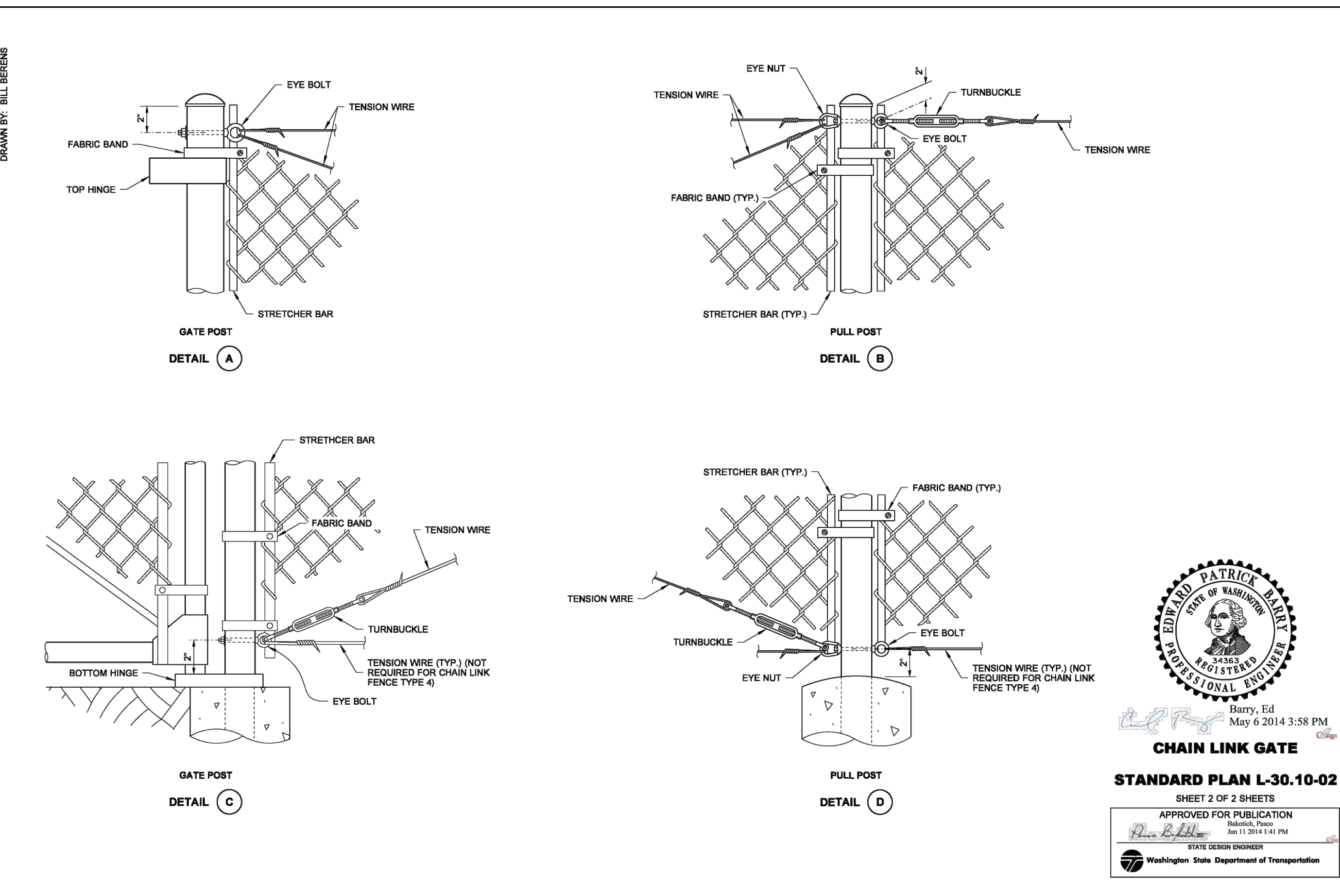
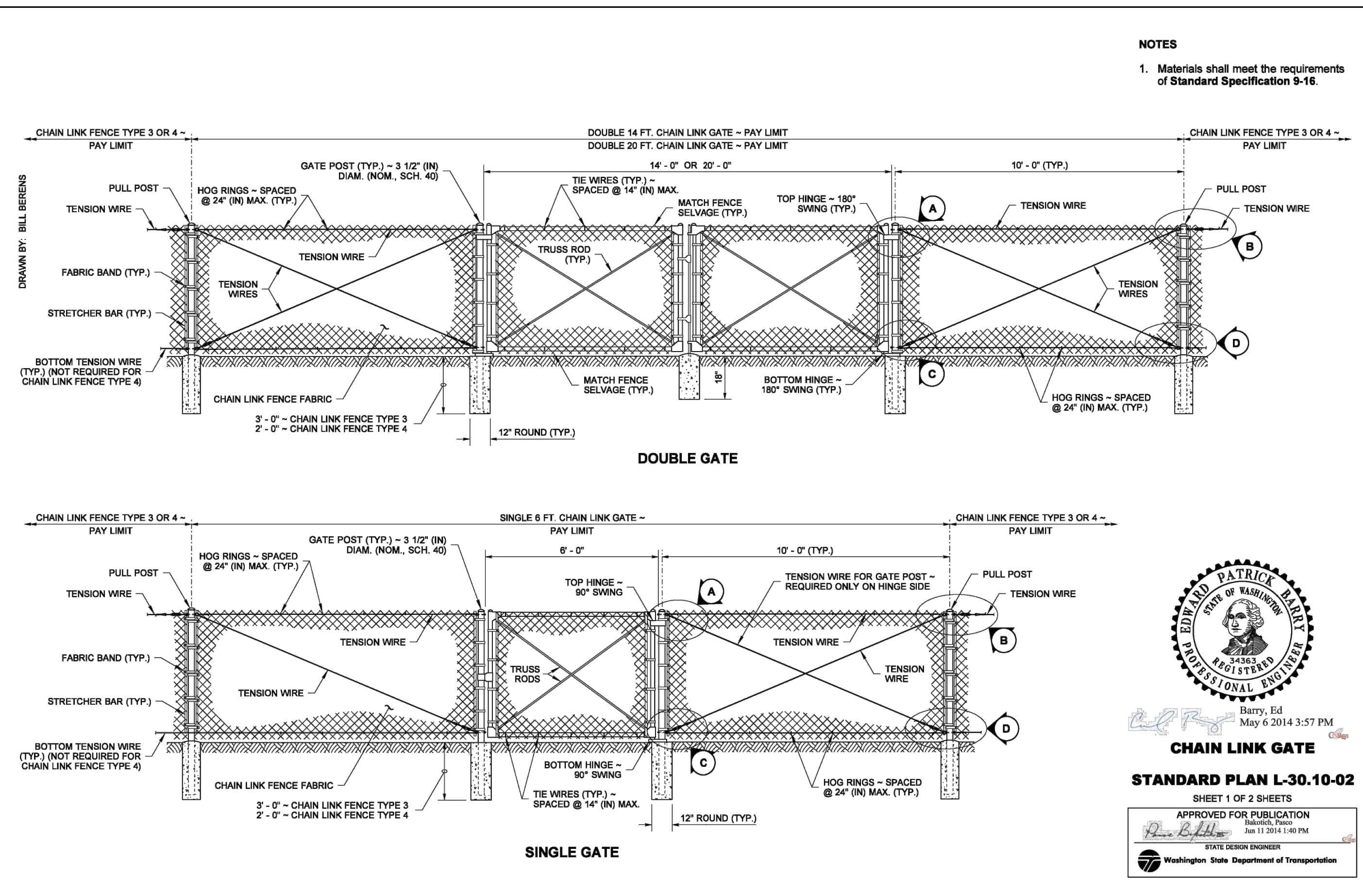
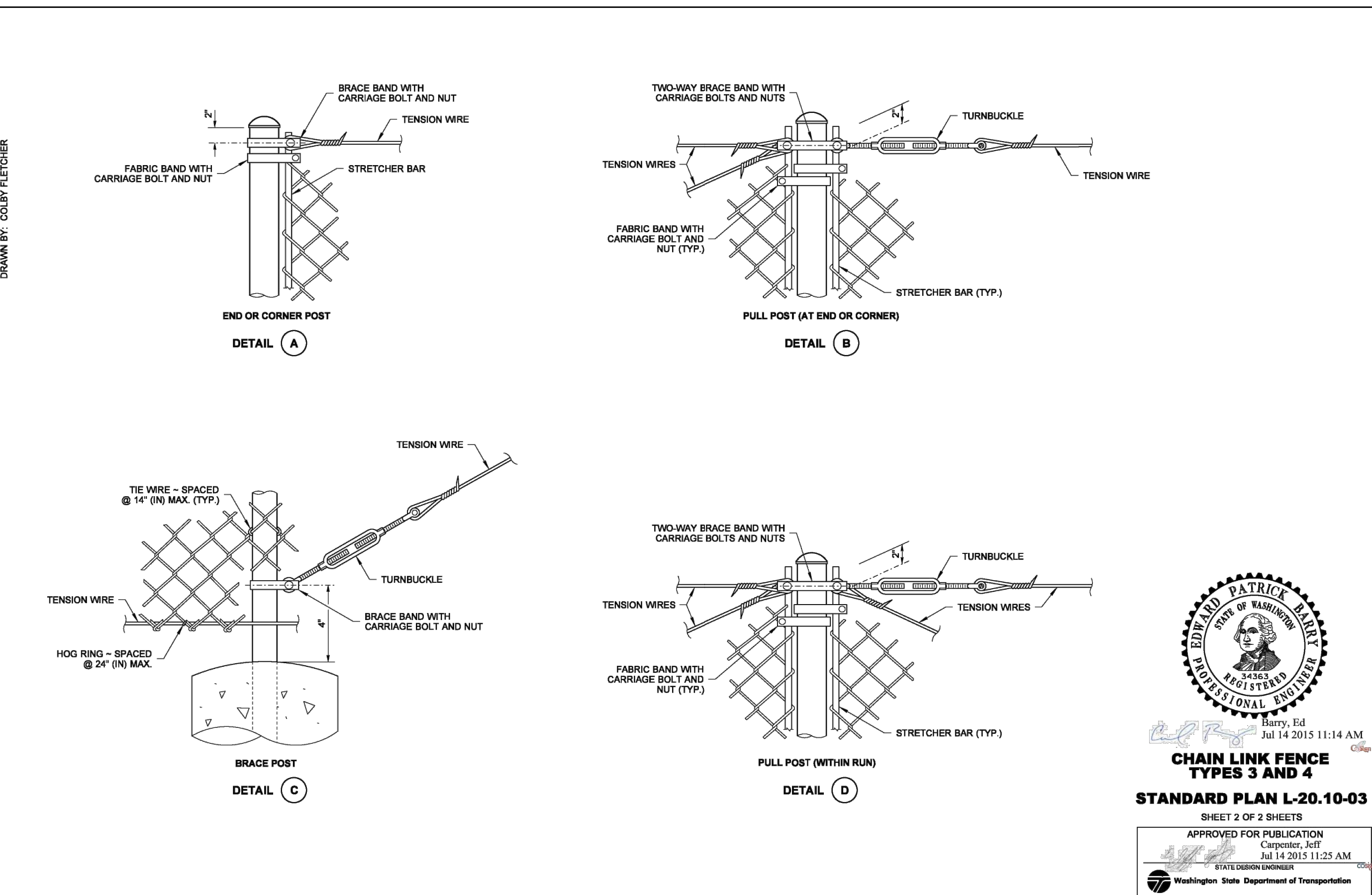
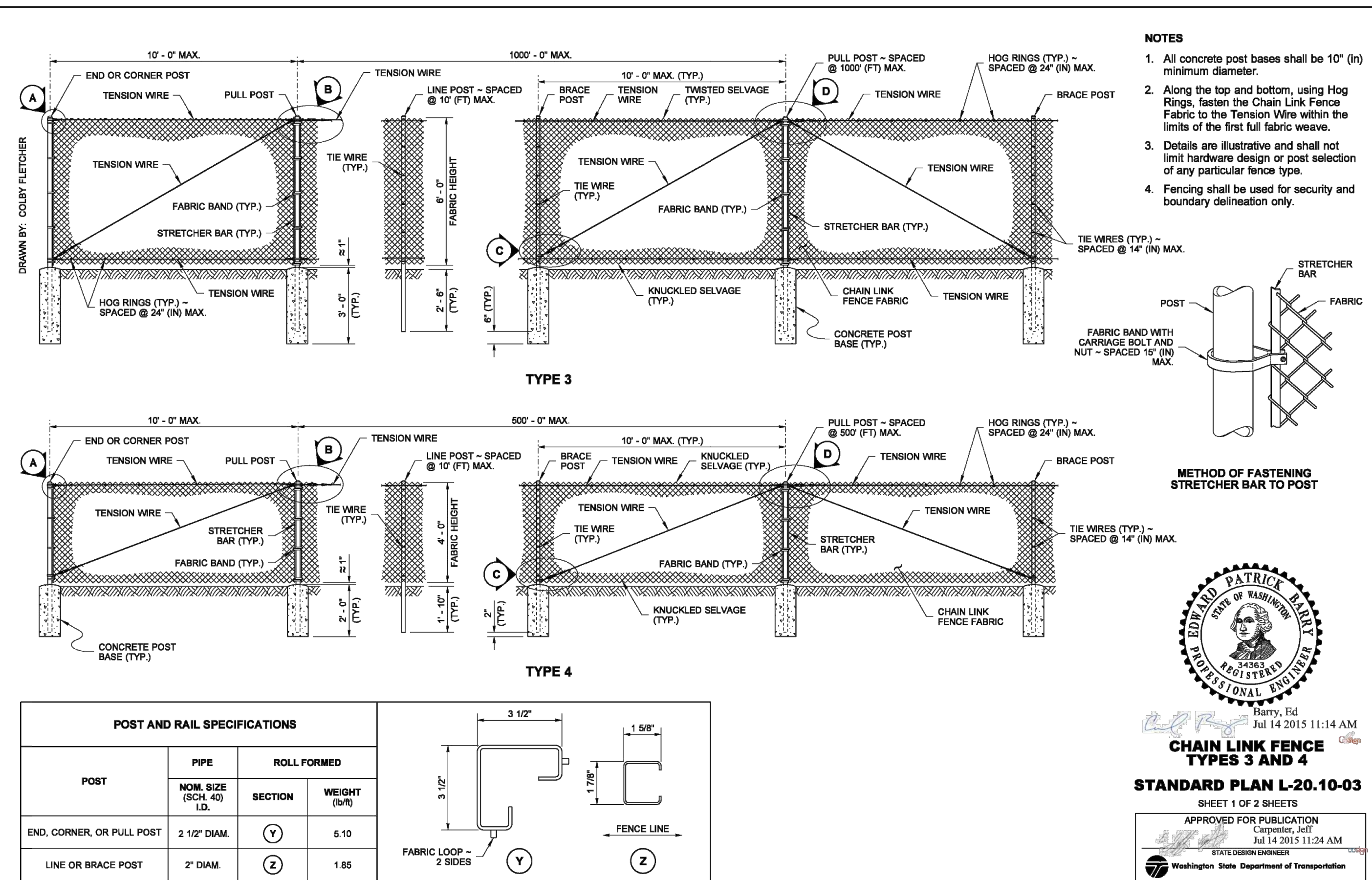
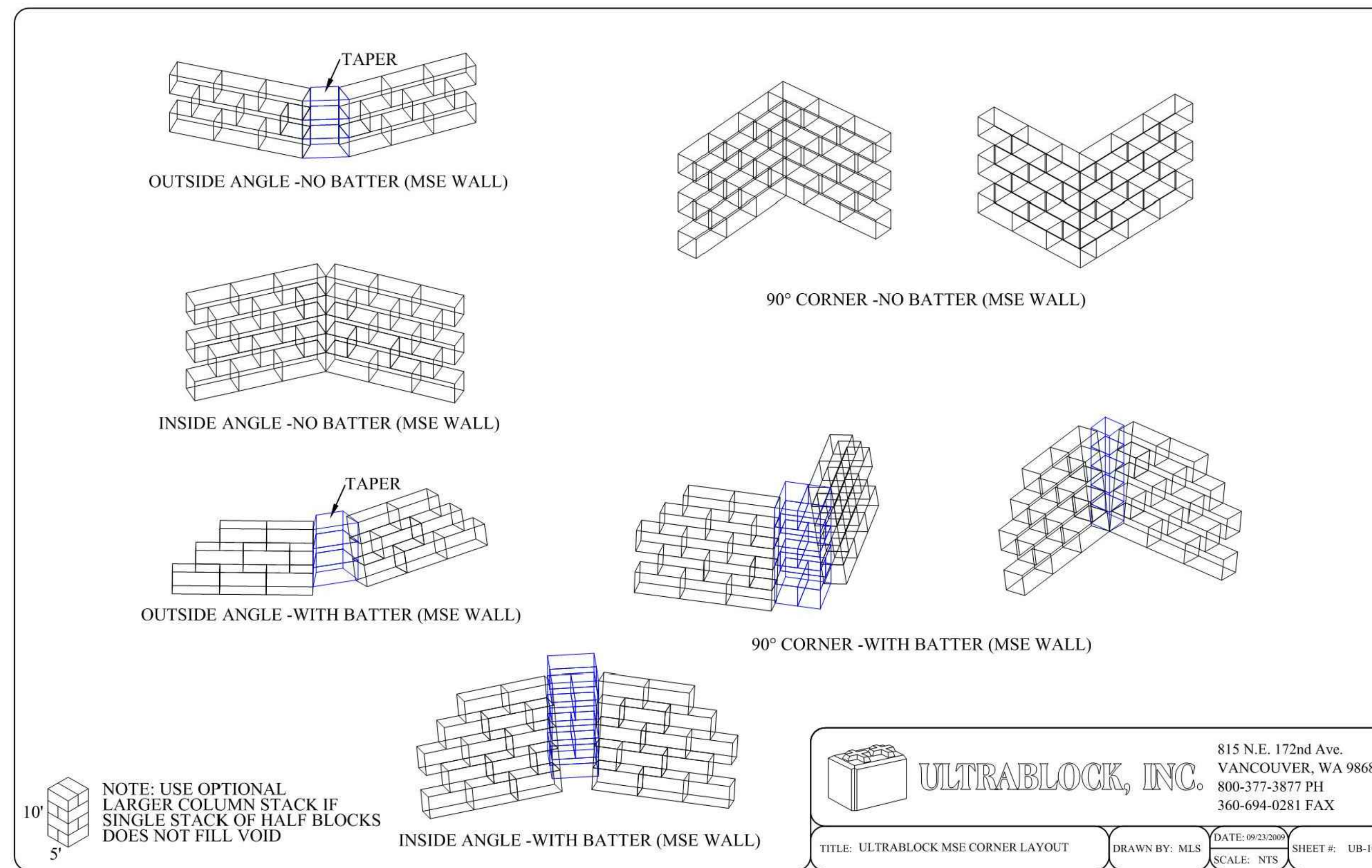
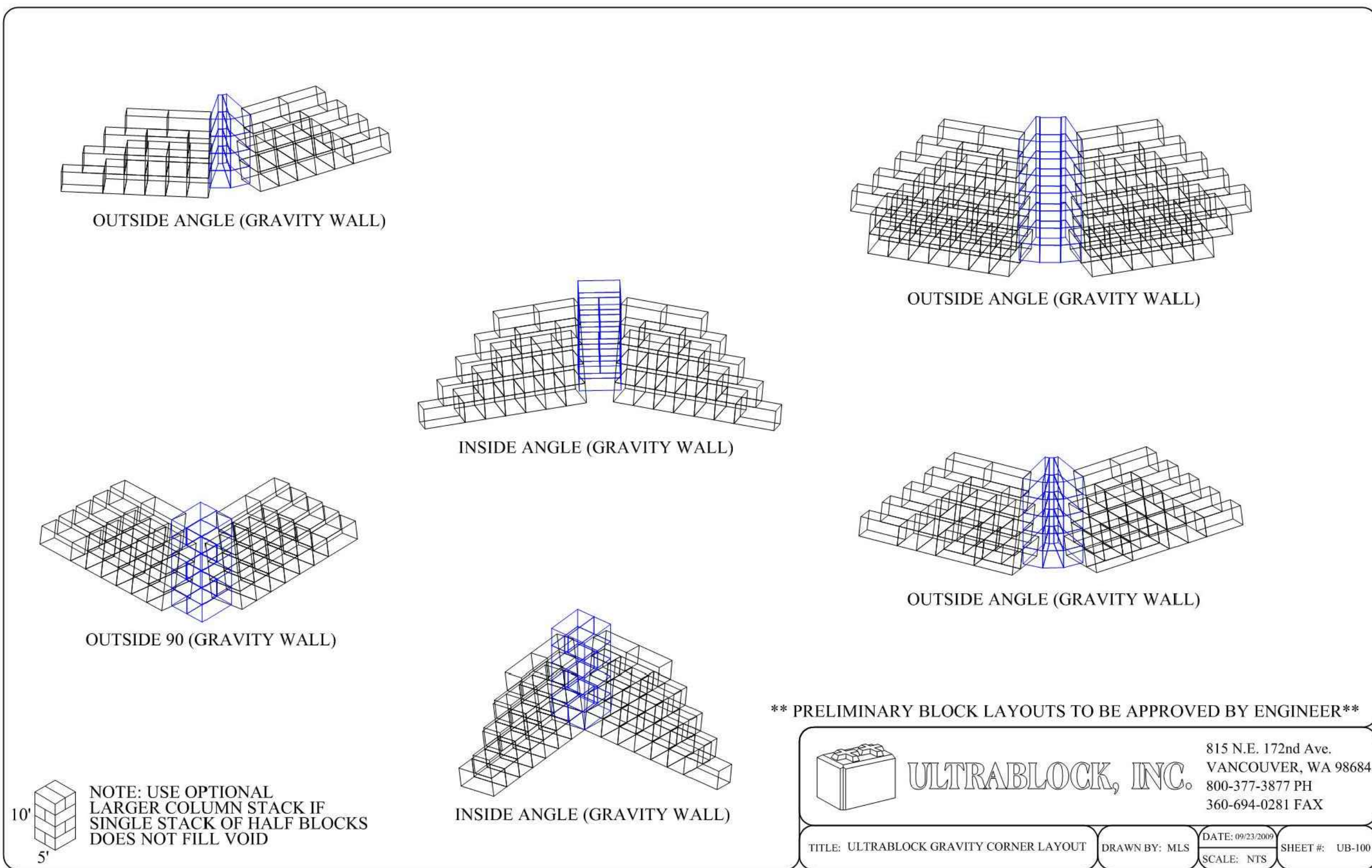
ALL WALL LAYOUTS, PROFILES & ELEVATIONS SHALL BE COMPLETED BY OTHERS



ALL WALL LAYOUTS, PROFILES & ELEVATIONS SHALL BE COMPLETED BY OTHERS

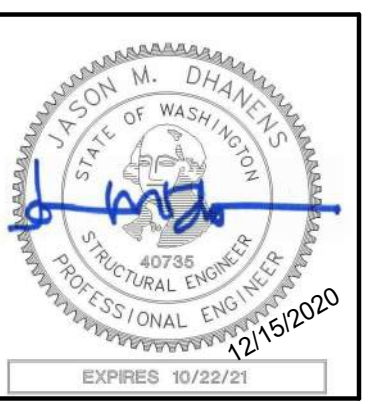


DESIGNED:	JMD	DRAWN:	HHPR	CHECKED:	RAV	DATE:	12/15/2020
REVIS	NO.	DESCRIPTION					
1		REVISED PER BUILDING DEPARTMENT COMMENTS					
SHEET NO.			<b>C8.02</b>				
JOB NO.			PWL-03				

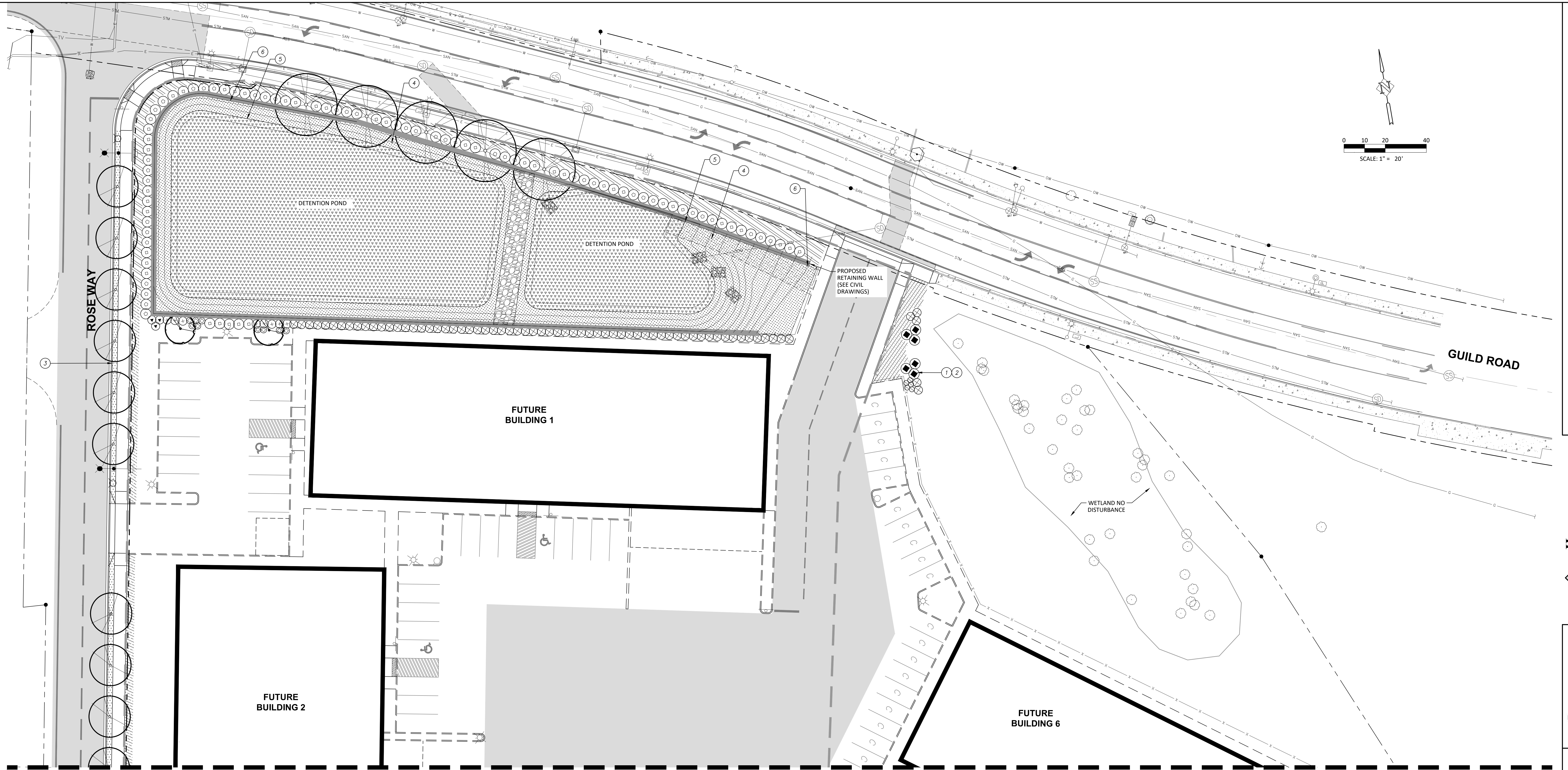


STRUCTURAL WALL AND FENCING DETAILS  
ROSE WAY INDUSTRIAL PARK  
WOODLAND, WASHINGTON

Harper Houff Peterson Righellis Inc.  
ENGINEERS & PLANNERS  
LANDSCAPE ARCHITECTS & SURVEYORS  
205 SE Spokane Street, Suite 200, Portland, OR 97202  
Phone: 503.221.1131 www.hhp.com



DESIGNED:	JMD	DATE:	12/15/2020
DRAWN:	HHFR	NO.	
CHECKED:	RAV	DESCRIPTION:	
REVISIONS			
1	3/23/2021	REVISED PER BUILDING DEPARTMENT COMMENTS	
SHEET NO.	C8.03		
JOB NO.	PWL-03		



PLANTING PLAN (NORTH)  
**ROSE WAY INDUSTRIAL PARK**  
 WOODLAND, WASHINGTON

**Harper Houf Peterson Righellis Inc.**  
 ENGINEERS & PLANNERS  
 LANDSCAPE ARCHITECTS & SURVEYORS  
 205 SE Spokane Street, Suite 200, Portland, OR 97202  
 phone: 503.221.1131 www.hhpr.com

STATE OF WASHINGTON  
 REGISTERED  
 LANDSCAPE ARCHITECT  
 JEFFERY P. CREEL  
 CERTIFICATE NO. 1396

DESIGNED:	JPC	DATE:	12/15/2020
DRAWN:	HHPR	CHECKED:	RAV
NO.		DATE:	
DESCRIPTION:			
R E V I S I O N S			
SHEET NO.	<b>L1.01</b>		
JOB NO.	PWL-03		

**MATCHLINE SHEET L1.02**

**PLANT SCHEDULE**

STREET TREES	
1	21 <i>Pyrus calleryana</i> 'Aristocrat' - Callery Pear 2" CAL. B&B, WELL BRANCHED, LIMBED TO 6'
SITE TREES	
5	<i>Acer macrophyllum</i> - Big Leaf Maple 2" CAL. B&B, WELL BRANCHED, LIMBED TO 6'
2	<i>Crataegus douglasii</i> - Douglas Hawthorn 2" CAL. B&B, WELL BRANCHED, LIMBED TO 6'
SHRUBS	
45	<i>Mahonia aquifolium</i> - Oregon Grape 5 GAL. CONT., FULL PLANTS, SPACING AS SHOWN
41	<i>Mirica californica</i> - Pacific Wax Myrtle 5 GAL. CONT., FULL PLANTS, SPACING AS SHOWN
3	<i>Muhlenbergia rigens</i> - Deer Grass 5 GAL. CONT., FULL PLANTS, SPACING AS SHOWN
9	<i>Spiraea betulifolia</i> 'Tox' - Toy Shrub-leaf Spiraea 5 GAL. CONT., FULL PLANTS, SPACING AS SHOWN
8	<i>Gaultheria shallon</i> - Salal 5 GAL. CONT., FULL PLANTS, SPACING AS SHOWN
6	<i>Cornus sericea</i> - Redosier Dogwood 5 GAL. CONT., FULL PLANTS, SPACING AS SHOWN
5	<i>Deschampsia cespitosa</i> - Tufted Hair Grass 5 GAL. CONT., FULL PLANTS, SPACING AS SHOWN
68	<i>Mahonia aquifolium</i> 'compacta' - Compact Oregon Grape 5 GAL. CONT., FULL PLANTS, SPACING AS SHOWN

GROUND COVER		
650	<i>Mahonia repens</i> - Creeping Mahonia 4" POTS CONT., FULL PLANTS, 24" O.C.	
276	<i>Juniperus communis</i> 'Green Carpet' - Green Carpet Juniper 1 GAL. CONT., FULL PLANTS, 36" O.C.	
139	<i>Arctostaphylos uva-ursi</i> 'Massachusetts' - Bearberry 1 GAL. CONT., FULL PLANTS, 24" O.C.	
SEED MIXES		
16892 SF	MARSH MIX	% PLS / 1000SF
	<i>Carex obtusata</i>	27.0 5.8
	<i>Carex micropetra</i>	25.0 5.4
	<i>Carex stipata</i>	29.5 6.4
	<i>Eleocharis palustris</i>	15.0 3.2
	<i>Scirpus microcarpus</i>	3.0 0.6
	<i>Juncus tenuis</i>	0.5 0.1
	TOTAL	21.56
6280 SF	NATIVE WETLAND MIX	% PLS / ACRE
	<i>Hordeum brachyantherum</i>	35.0 12.29
	<i>Glyceria occidentalis</i>	20.0 8.72
	<i>Festuca rubra rubra</i>	20.0 8.72
	<i>Allopecurus geniculatus</i>	13.0 5.67
	<i>Eleocharis palustris</i>	5.00 2.18
	<i>Beckmannia syzigachne</i>	4.00 1.74
	<i>Deschampsia cespitosa</i>	2.50 1.09
	<i>Agrostis exarata</i>	0.50 0.22
	TOTAL	43.58
1543 SF	SEED MIX 1 (LAWN AREAS)	% PLS / ACRE
	<i>Festuca rubra</i> 'Garnet'	20.0 60.00
	<i>Festuca rubra</i> 'Winward'	20.0 60.00
	<i>Lolium perenne</i> 'Blazer 4'	30.0 90.00
	TOTAL	140.00

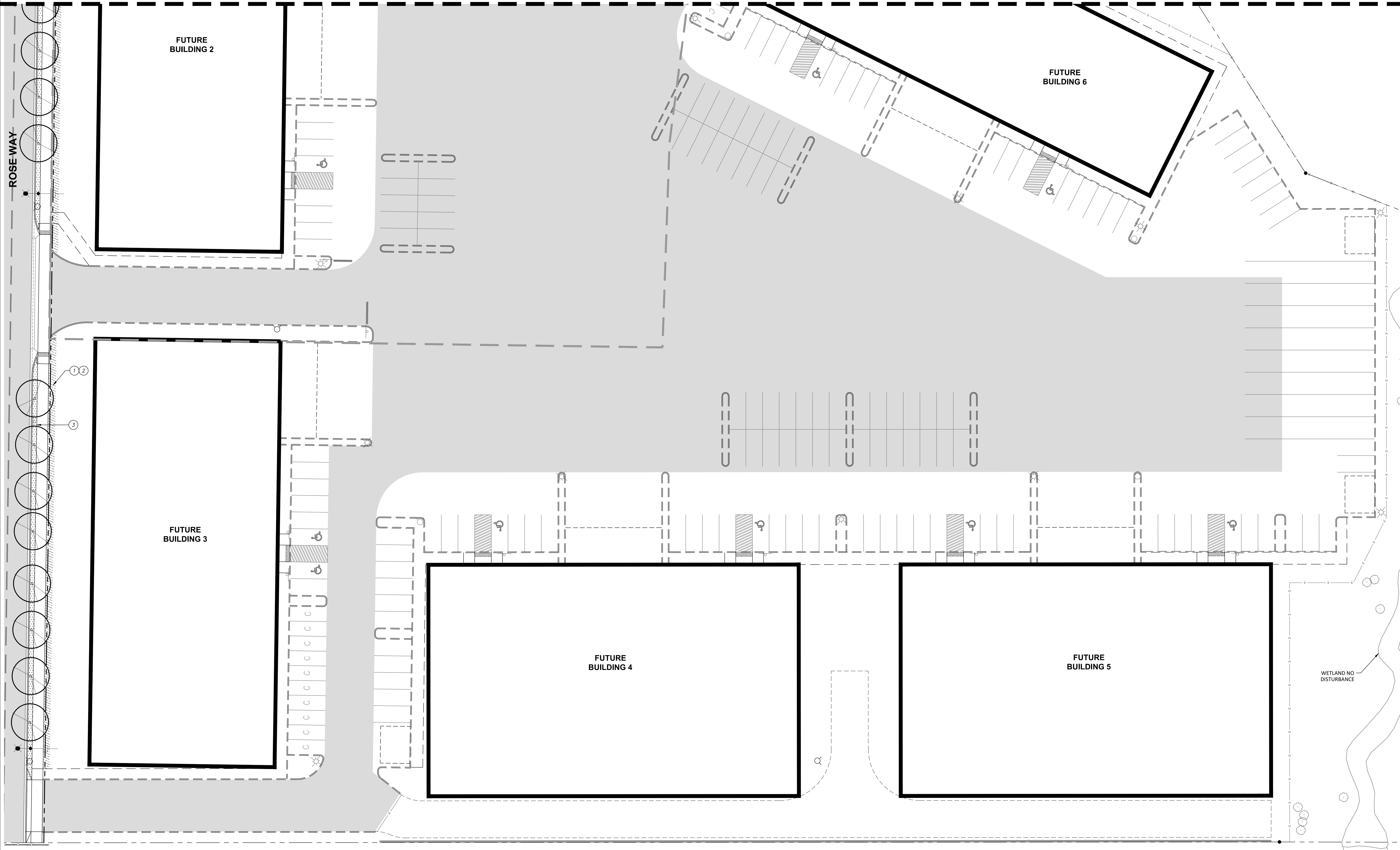
**GENERAL PLANTING NOTES**

- ALL CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH CURRENT CITY OF WOODLAND STANDARDS AND THE COWLITZ COUNTY BUILDING AND SPECIALTY CODES.
- INSTALL EROSION CONTROL SYSTEMS IN ACCORDANCE WITH THE CITY OF WOODLAND STANDARDS PRIOR TO SITE WORK AND LANDSCAPE INSTALLATION.
- CONTRACTOR SHALL MARK AND PROTECT ALL UTILITIES, SITE FEATURES, AND VEGETATION TO REMAIN IN PLACE.
- CONTRACTOR SHALL REMOVE ALL WEEDS AND INVASIVE SPECIES SHALL BE REMOVED PRIOR TO PLANTING OR SEEDING.
- ALL DISTURBED AREAS SHALL BE SEEDED.
- PRIOR TO CONSTRUCTION, CONTRACTOR SHALL STOCKPILE TOPSOIL AND TEST SOIL FOR SOIL FERTILITY BY CERTIFIED TESTING LAB. IF NECESSARY, BACKFILL SOILS FOR TREE PITS, SHRUB AND GROUND COVER AREAS SHALL BE AMENDED AS RECOMMENDED BY SOIL FERTILITY REPORT.
- ALL SEEDED AREAS SHALL BE STRIPPED OF VEGETATION, SCARIFIED AND RECEIVE 6" OF TOPSOIL PRIOR TO APPLICATION OF SEED.
- ALL PLANTER BEDS SHALL BE SCARIFIED 12" BELOW FINISHED GRADE AND HAVE 12" OF TOPSOIL ADDED TO BRING BACK TO FINISHED GRADE PRIOR TO PLANTING.
- CONTRACTOR TO APPLY 3" LAYER OF COMPOST MULCH AT ALL TREES, SHRUBS AND GROUND COVER AREAS.
- LANDSCAPE INSTALLATION SHALL INCLUDE PROVISION OF A DESIGN/BUILD AUTOMATIC IRRIGATION SYSTEM TO SUSTAIN LANDSCAPE PLANTINGS, MEETING LOCAL AND STATE BUILDING CODES.
- PLANT MATERIAL INSTALLED SHALL CONFORM IN SIZE AND GRADE TO THE "AMERICAN STANDARD FOR NURSERY STOCK" CURRENT EDITION.
- QUANTITIES OF PLANT MATERIALS SHALL BE AS DETERMINED BY CONTRACTOR IN ACCORDANCE WITH SPECIFIED SPACING OR LOCATION ON PLAN. MATERIAL QUANTITIES SHOWN ON PLAN ARE FOR CONTRACTOR CONVENIENCE ONLY AND SHALL BE VERIFIED BY CONTRACTOR PRIOR TO INSTALLATION. SURPLUS OR SHORTAGES OF PLANT QUANTITIES SHALL BE RESPONSIBILITY OF CONTRACTOR.
- LANDSCAPE CONTRACTOR SHALL WATER PLANTINGS FOR DURATION OF ONE-YEAR WARRANTY PERIOD AFTER INSTALLATION AND GUARANTEE ALL PLANTINGS TO BE IN SATISFACTORY HEALTH. LANDSCAPE CONTRACTOR SHALL REPLACE ALL DAMAGED, DEAD, OR DYING PLANTS COVERED BY WARRANTY WITHIN 30 DAYS OF INITIAL IDENTIFICATION OF CONDITION.

**CONSTRUCTION NOTES**

- PLACE 3" DEEP BARK MULCH IN PLANTING AREA, TYP. - 67 CY
- PLACE 12" AMENDED TOP SOIL PLANTING AREA, TYP. - 269 CY
- PLACE 6" AMENDED TOP SOIL IN SEEDED AREA, TYP. - 13 CY
- PLACE 12" TOP SOIL TYPE B IN STORM POND, TYP. - 858 CY
- ASSUMED WQ DESIGN WATER SURFACE MARK. SEE CIVIL DRAWINGS FOR EXACT ELEVATION. SEED AND ESTABLISH MARSH MIX IN THIS AREA PRIOR TO STORM-WATER SATURATION.
- ASSUMED DETENTION HIGH WATER MARK. SEE CIVIL DRAWINGS FOR EXACT ELEVATION. SEED AND ESTABLISH NATIVE WETLAND MIX IN THIS AREA PRIOR TO STORM-WATER SATURATION.

P:\02-Vancouver\PMW (Port of Woodland)\PWL-03-Rose Way Industrial\DWGS\Sheets\PWL-03-L1-01-02-Planting Plans.rvt



PLANTING PLAN (SOUTH)  
 ROSE WAY INDUSTRIAL PARK  
 WOODLAND, WASHINGTON

**Harper Houf Peterson Righellis Inc.**  
 ENGINEERS • PLANNERS  
 LANDSCAPE ARCHITECTS • SURVEYORS  
 205 SE Spokane Street, Suite 200, Portland, OR 97202  
 phone: 503.221.1131 www.hhpr.com

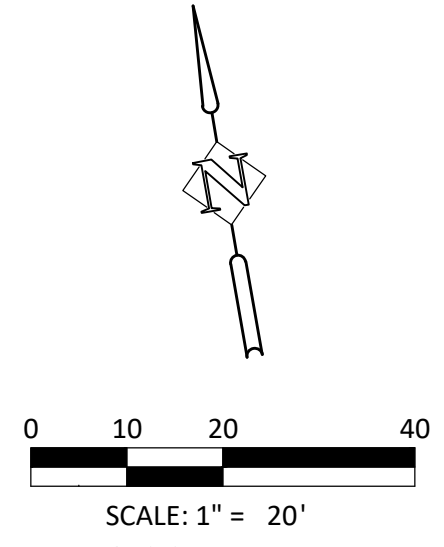
STATE OF WASHINGTON  
 REGISTERED  
 LANDSCAPE ARCHITECT  
 JEFFERY P. CREEL  
 CERTIFICATE NO. 1386

DESIGNED:	JPC	HHPR	RAV
DRAWN:			
CHECKED:			
DATE:	12/15/2020		12.15.20

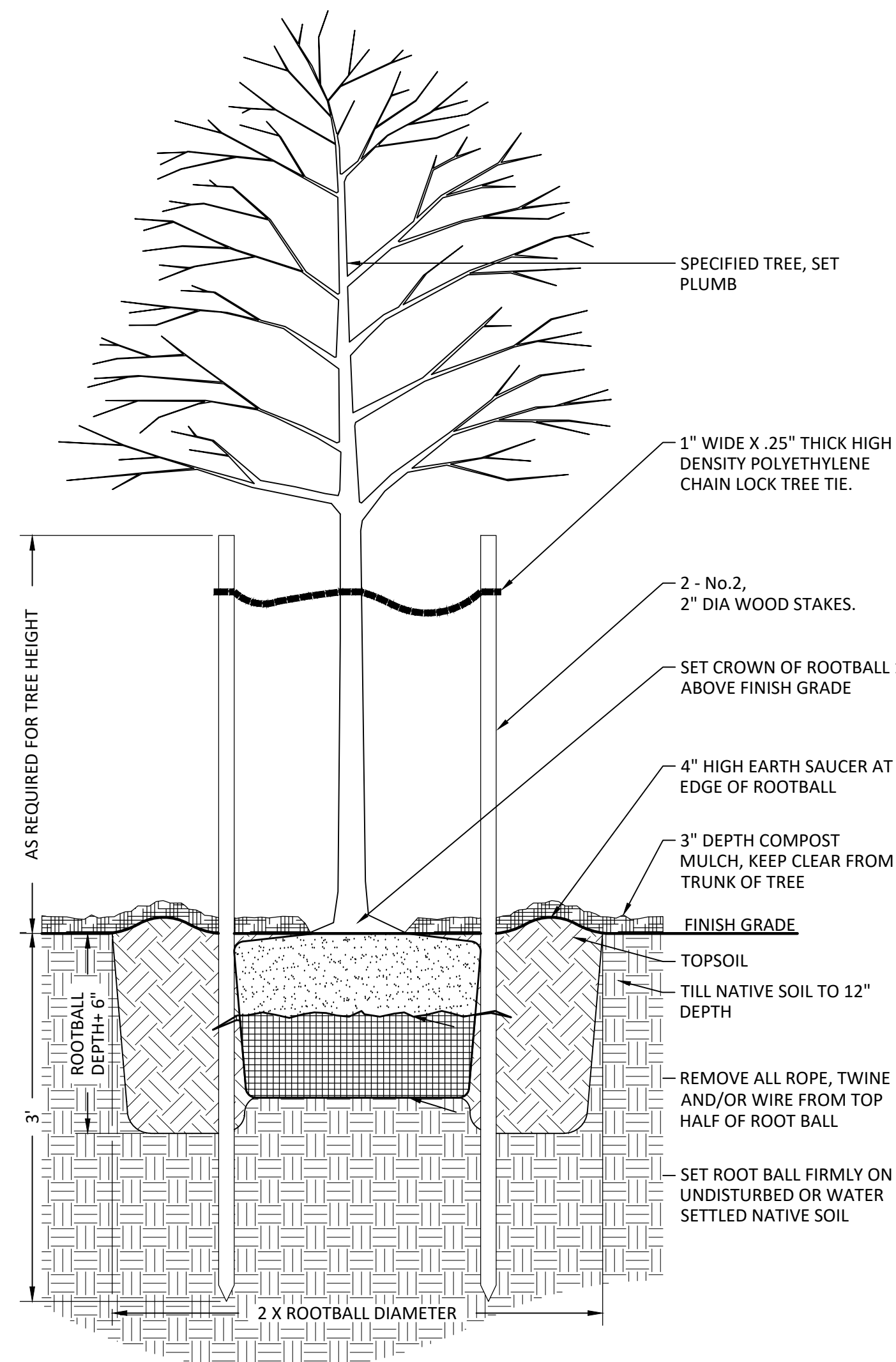
NO.	DATE	DESCRIPTION

SHEET NO.  
**L1.02**  
 JOB NO.  
 PWL-03

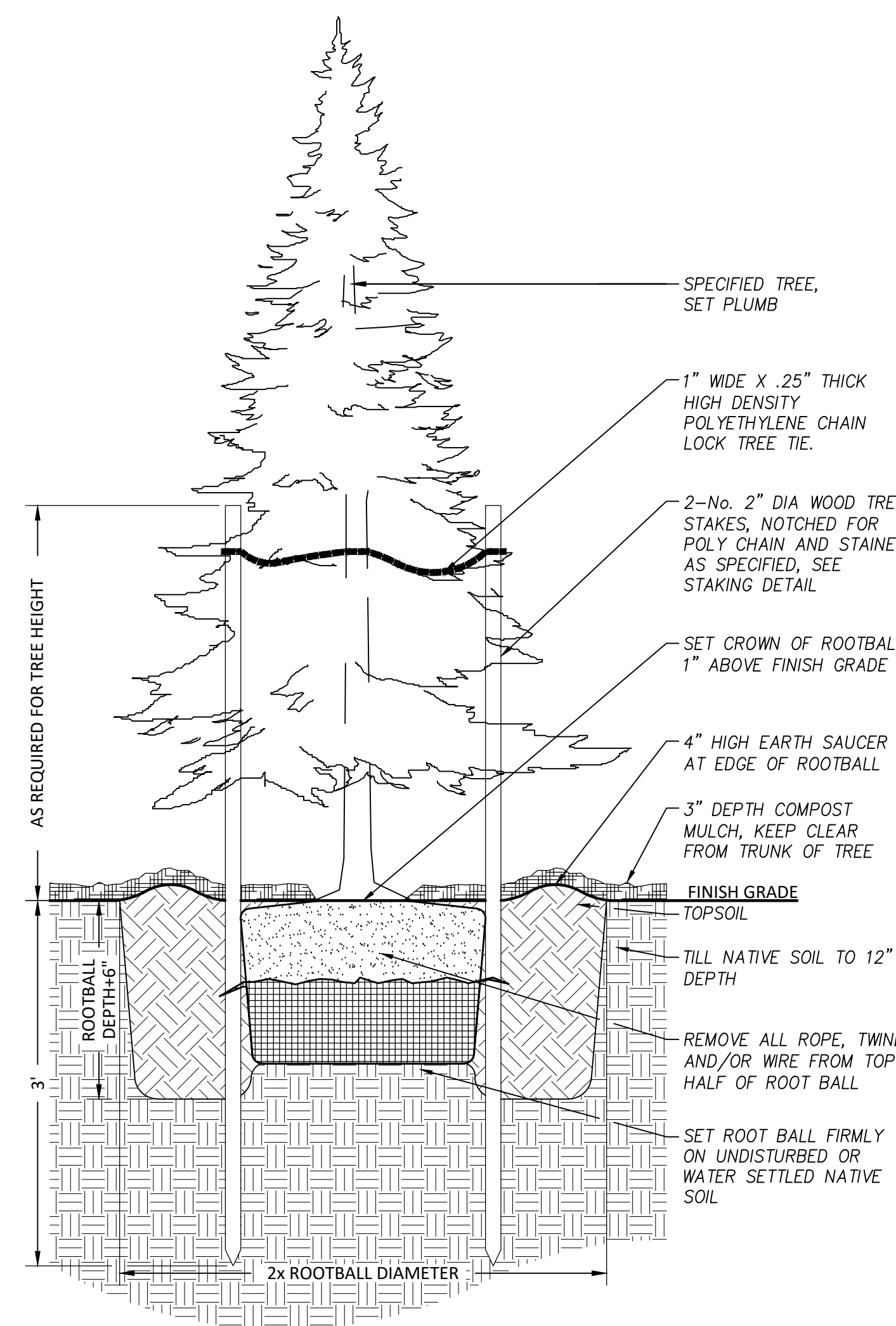
- CONSTRUCTION NOTES**
- ① PLACE 3" DEEP BARK MULCH IN PLANTING AREA, TYP. - 13 CY
  - ② PLACE 12" AMENDED TOP SOIL IN PLANTING AREA, TYP. - 52 CY
  - ③ PLACE 6" AMENDED TOP SOIL IN SEEDED AREA, TYP. - 16 CY



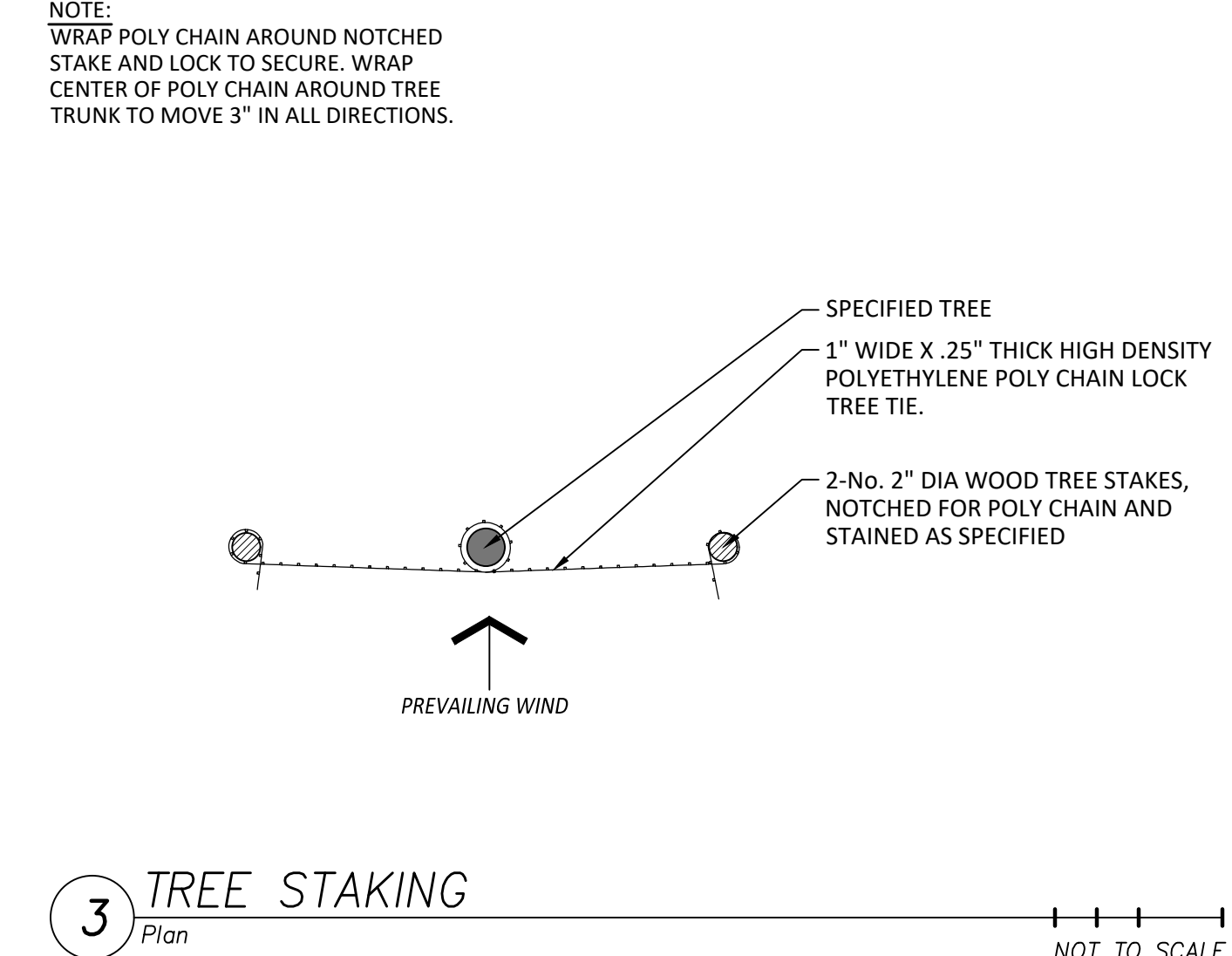
SEE SHEET L1.01 FOR PLANTING SCHEDULE AND NOTES



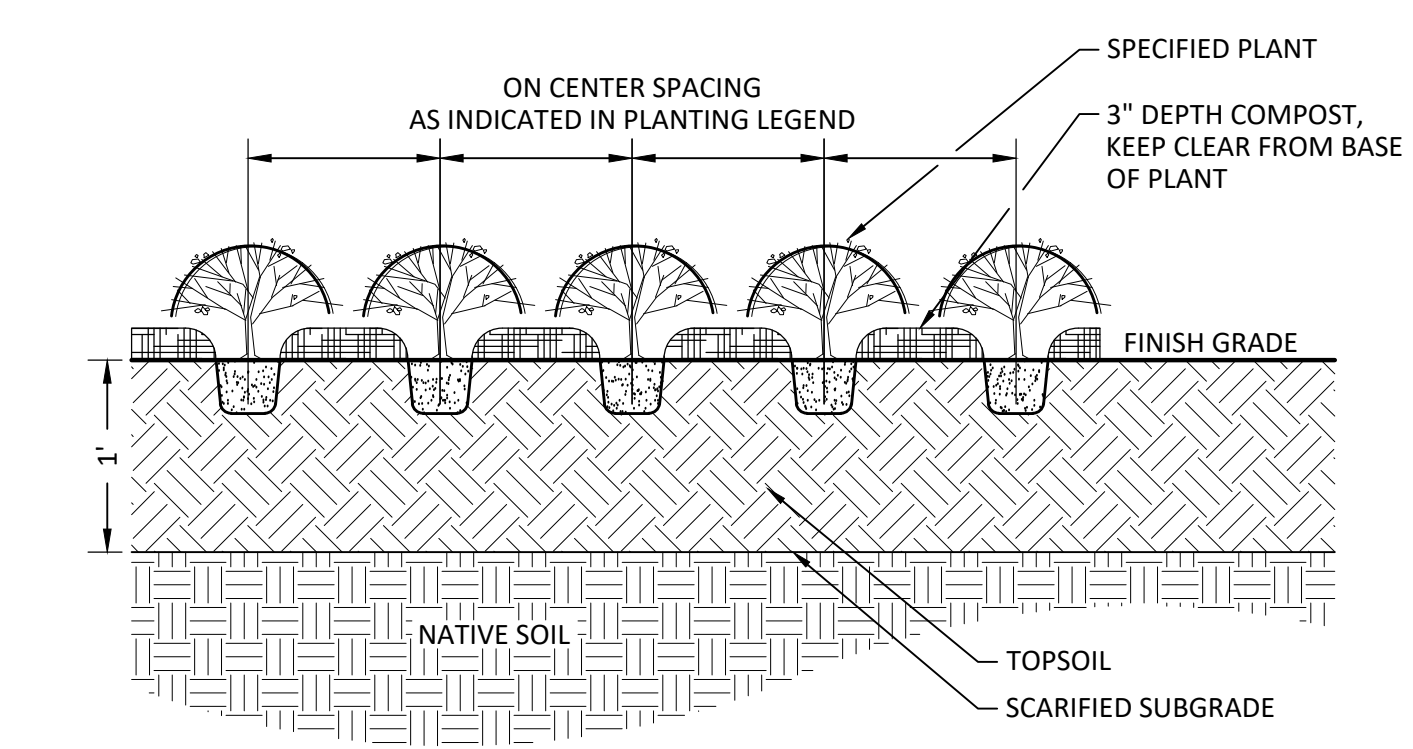
**1 DECIDUOUS TREE PLANTING**  
Section NOT TO SCALE



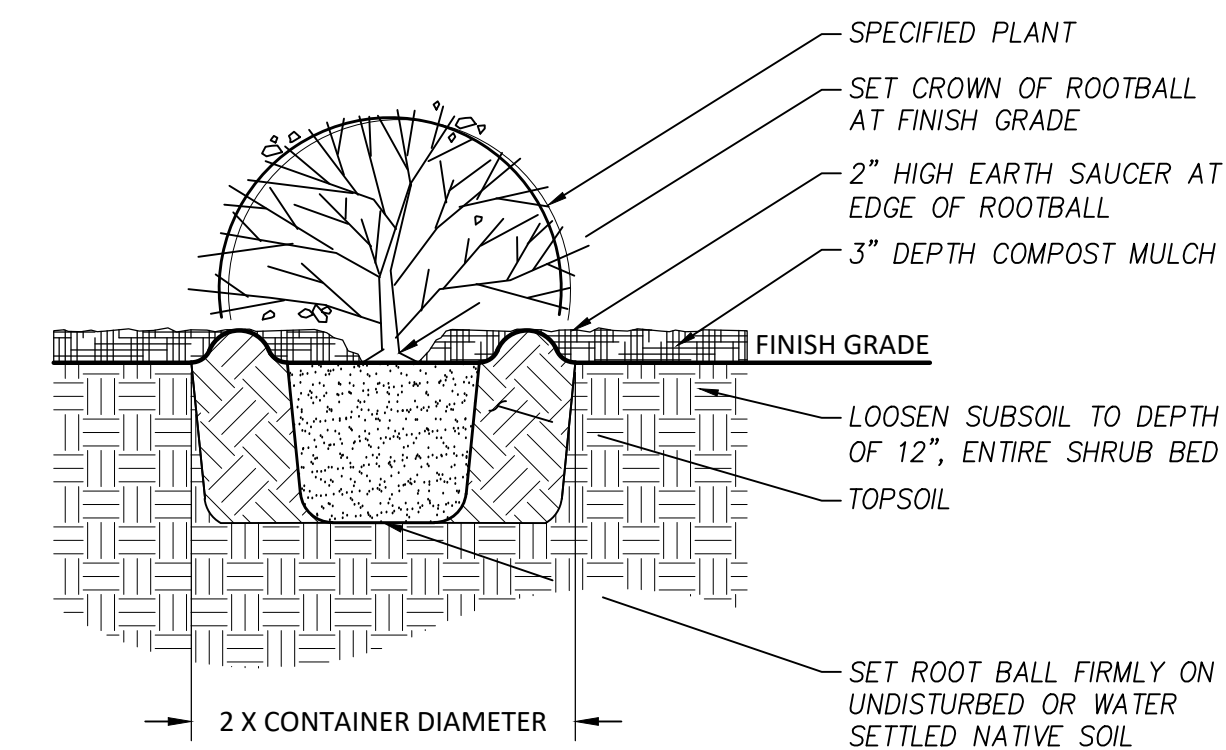
**2 CONIFER TREE PLANTING**  
Section NOT TO SCALE



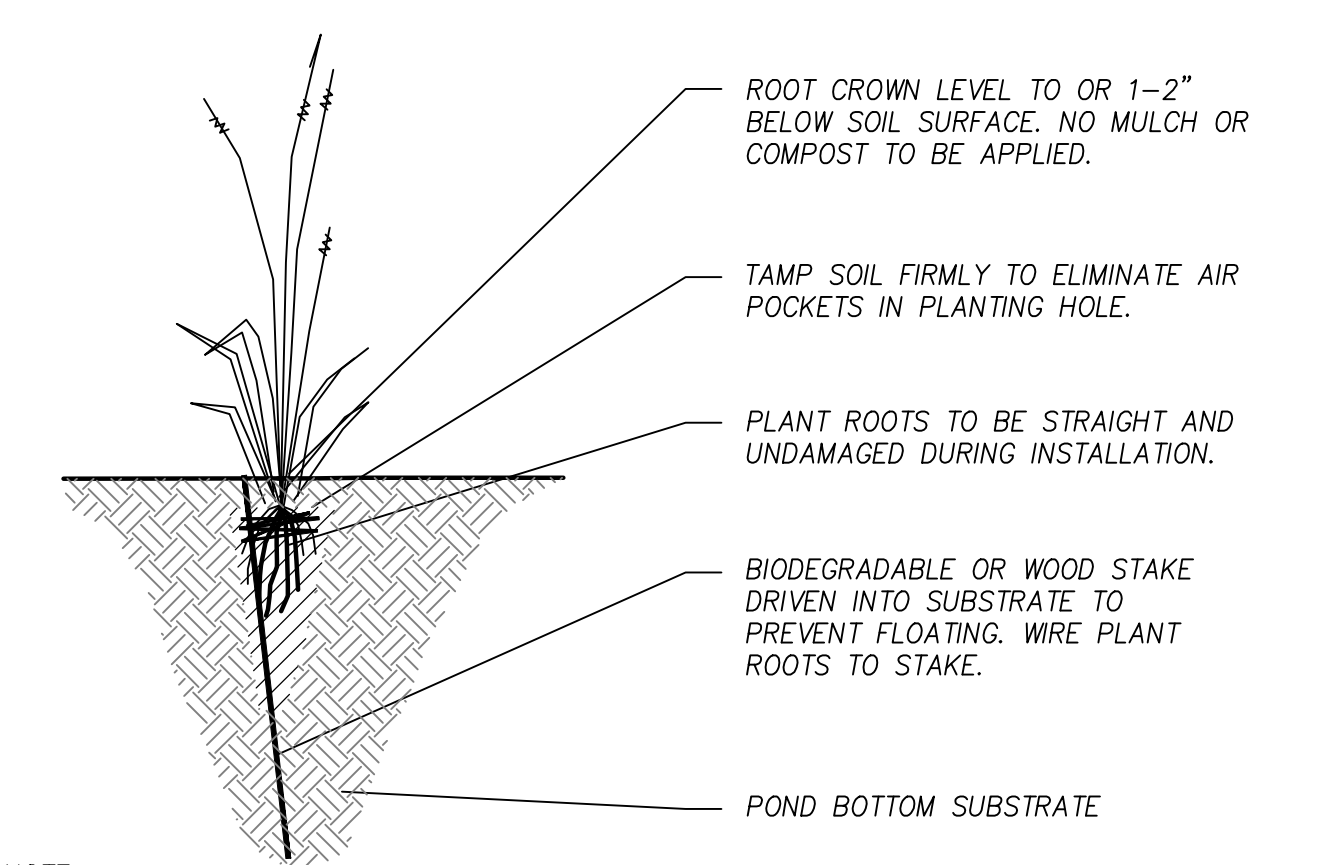
**3 TREE STAKING**  
Plan NOT TO SCALE



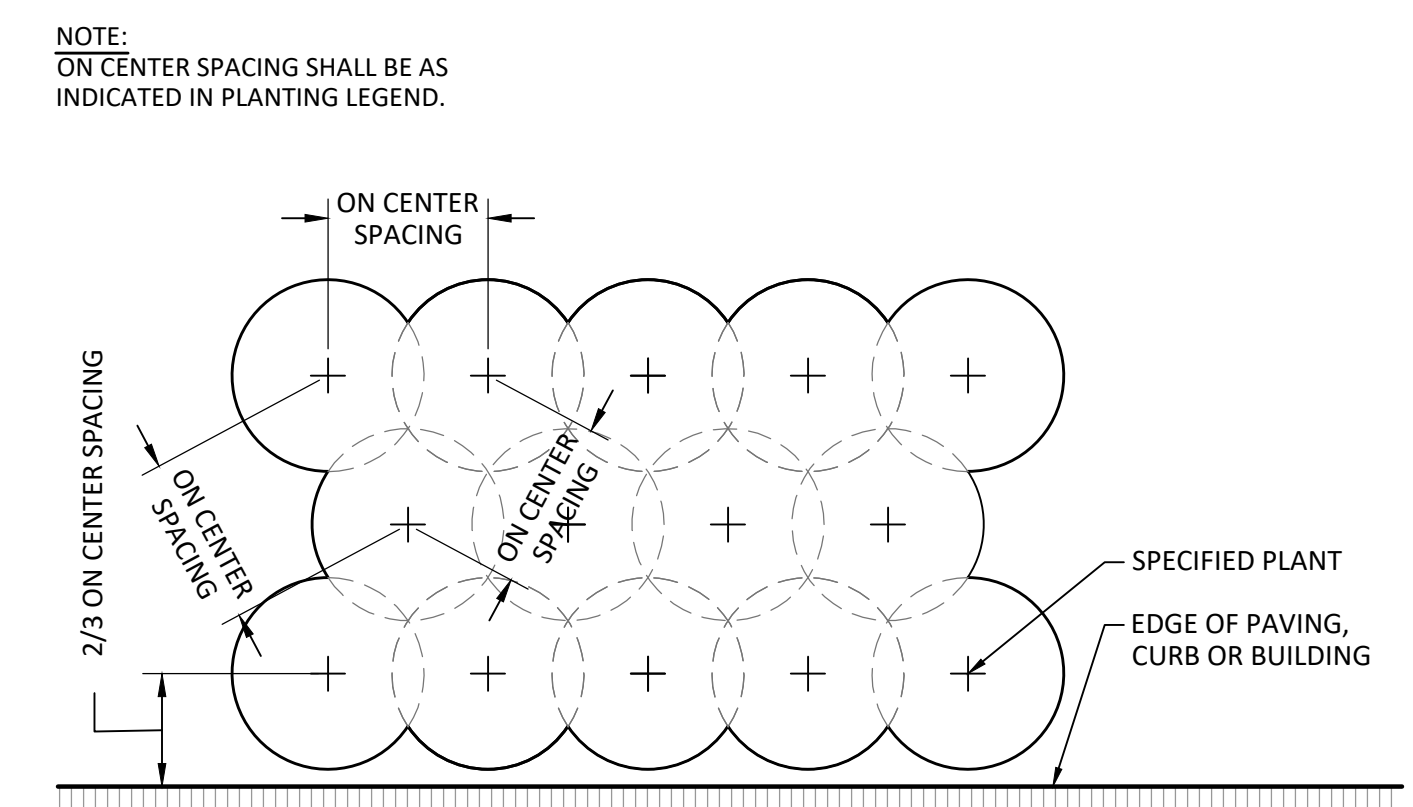
**4 GROUNDCOVER PLANTING**  
Section NOT TO SCALE



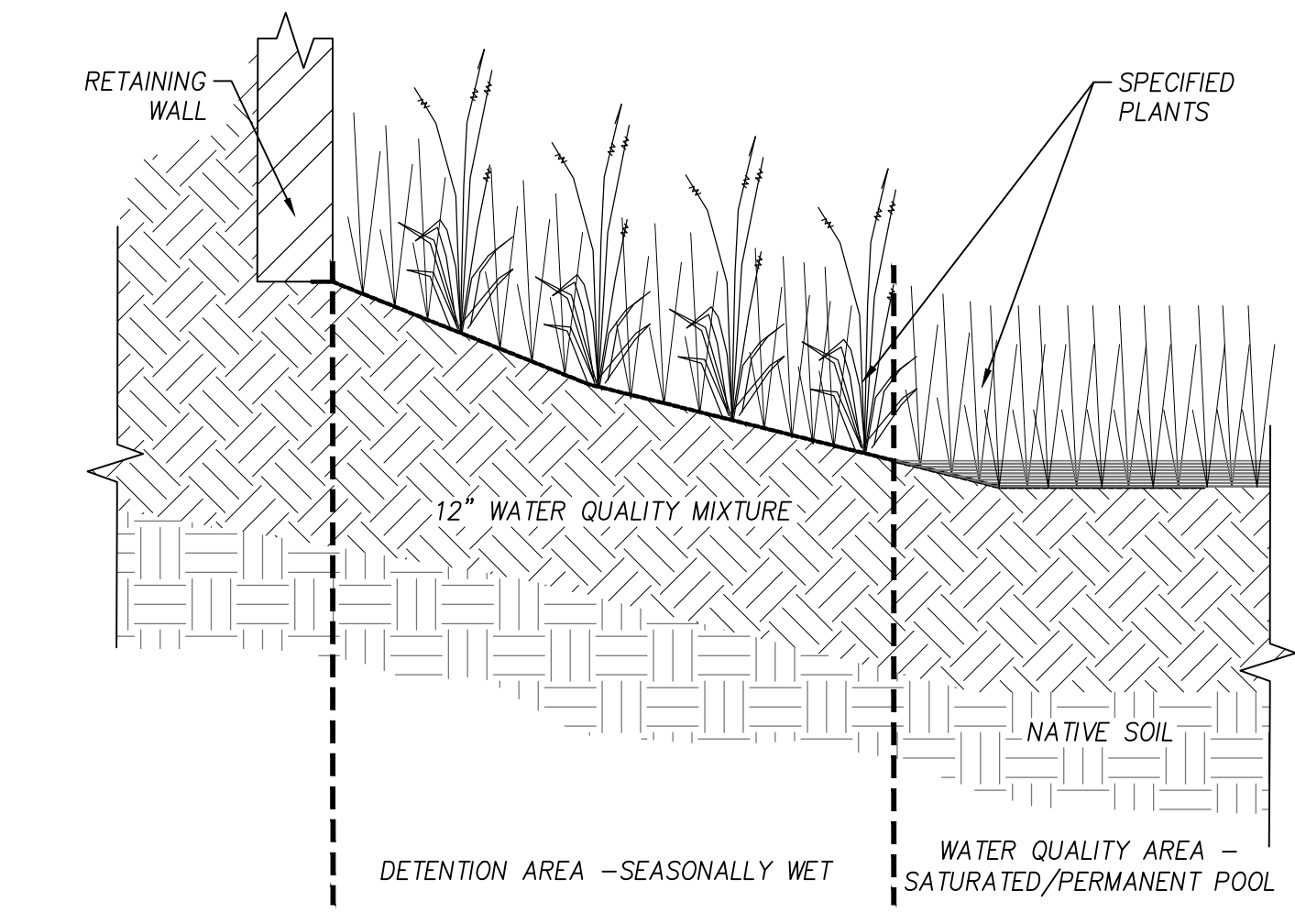
**5 SHRUB PLANTING**  
Section NOT TO SCALE



**6 EMERGENT PLANTING (BARE ROOT, PLUG)**  
Section NOT TO SCALE



**7 TRIANGULAR SPACING**  
Plan NOT TO SCALE

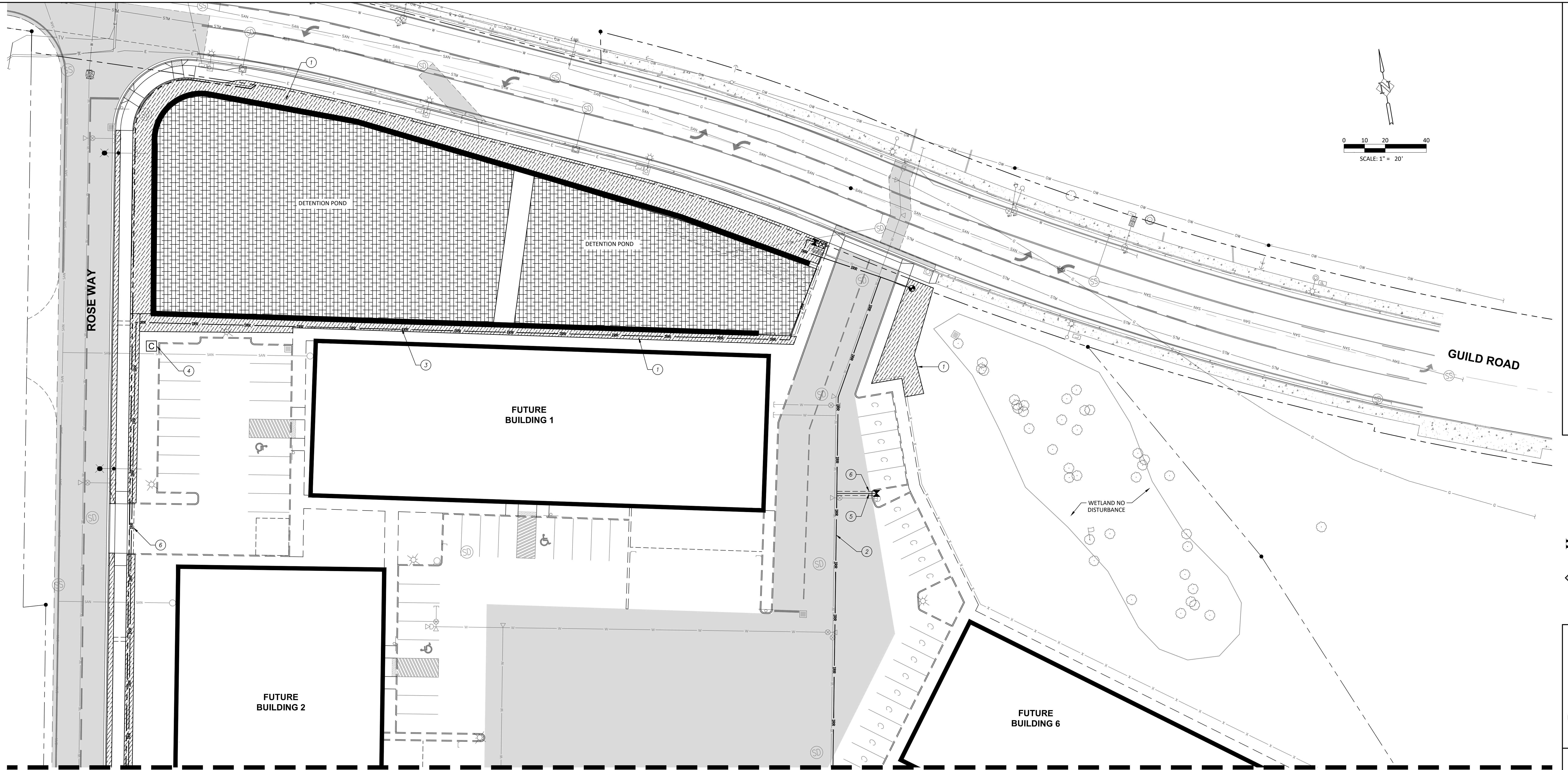


**8 DETENTION POND**  
Section NOT TO SCALE

NOTE:  
WRAP POLY CHAIN AROUND NOTCHED STAKE AND LOCK TO SECURE. WRAP CENTER OF POLY CHAIN AROUND TREE TRUNK TO MOVE 3" IN ALL DIRECTIONS.

NOTE:  
ON CENTER SPACING SHALL BE AS INDICATED IN PLANTING LEGEND.

DESIGNED:	JPC	DRAWN:	HHPR	CHECKED:	RAV	DATE:	12/15/2020
NO.		NO.		NO.		NO.	
DATE:		DATE:		DATE:		DATE:	
R E V I S I O N S							
DESCRIPTION							
SHEET NO.							
<b>L1.03</b>							
JOB NO. PWL-03							



MATCHLINE SHEET L2.02

**IRRIGATION LEGEND**

EQUIPMENT	
SYMBOL	DESCRIPTION
	BACKFLOW PREVENTOR - FEBCO MODEL 850 Y, 2" OR APPROVED EQ.
	BALL VALVE - NIBCO T-560 OR APPROVED EQUAL.
	REMOTE CONTROL VALVE - HUNTER ICV OR APPVD EQ. SIZE AS SHOWN REMOTE CONTROL VALVE
	QUICK COUPLER - HUNTER HQ3 OR APPROVED EQUAL.
	DESIGN / BUILD IRRIGATION ZONE: SPRAY HEADS
	DESIGN / BUILD IRRIGATION ZONE: TEMPORARY ROTORS
PIPE	
	MAINLINE - 2" SCH. 40 PVC
	LATERAL LINE - 1.5" CLASS 200 PVC

**IRRIGATION NOTES**

- AUTOMATIC UNDERGROUND IRRIGATION SYSTEM SHALL BE CONTRACTOR DESIGNED AND INSTALLED. PLANS SHALL BE APPROVED BY OWNER'S REPRESENTATIVE. CONTRACTOR SHALL INSPECT SITE AND VERIFY CONDITIONS AND DIMENSIONS PRIOR TO DESIGN AND CONSTRUCTION.
- IRRIGATION PLANS ARE SCHEMATIC REPRESENTATIONS ONLY. PLACE LINES IN COMMON TRENCH WHENEVER POSSIBLE. FIELD ADJUST LINES TO AVOID CONFLICT WITH UTILITIES.
- IRRIGATION IS COORDINATED WITH PLANTING PLAN AND SITE IMPROVEMENTS AND IS DESIGNED WITH HEAD-TO-HEAD COVERAGE. COORDINATE IRRIGATION HEAD LAYOUT WITH NEW PLANT MATERIALS, LOCATE SPRAY HEADS 30" FROM BASE OF TREE.
- ALL COMPONENTS OF IRRIGATION SYSTEM SHALL BE INSTALLED AND PROPERLY ADJUSTED TO PROVIDE ADEQUATE COVERAGE AND MINIMIZATION OF OVERSPRAY ONTO WALKS, BUILDINGS, PARKING AREAS, ETC.
- ALL PIPE SIZES INDICATED ARE ESTIMATES. CONTRACTOR MAY NOT DECREASE PIPE SIZE UNLESS APPROVED BY OWNER'S REPRESENTATIVE. LARGER PIPE SIZES MAY BE USED AT NO ADDITIONAL COST TO OWNER.
- INSTALL ALL IRRIGATION PIPE AND CONTROL WIRES IN MINIMUM 4" PVC SLEEVE BELOW ALL PAVED SURFACES UNLESS OTHERWISE INDICATED ON PLANS. INSTALL SLEEVES PRIOR TO PLACEMENT OF PAVEMENTS AND PAVEMENT SUB-BASE. COORDINATE SLEEVE INSTALLATION THROUGH PLANTER BOXES WITH CONSTRUCTION MANAGER.
- COORDINATE IRRIGATION POINTS OF CONNECTION AND LOCATION OF AUTOMATIC CONTROL VALVES WITH PROJECT MANAGER. COORDINATE ALL WORK WITH OTHER TRADES, I.E. ELECTRICAL, MASONRY, ETC.
- CONTRACTOR TO PROGRAM AUTOMATIC CONTROLLER TO ALLOW FOR EQUIVALENT OF 1" OF WATER PER WEEK, WITH ZONES DESIGNED FOR 40 GPM OR APPROVED, SUBJECT TO OVERALL DESIGN OF IRRIGATION SYSTEM.
- PIPES SHALL BE TRENCHED. PROVIDE POSITIVE DRAINAGE OF MAINLINE. PLACE MANUAL DRAIN AT LOW POINTS IN MAINLINE. IDENTIFY LOCATIONS ON AS-BUILTS.

**CONSTRUCTION NOTES**

- INSTALL DESIGN/BUILD IRRIGATION SYSTEM IN AREAS INDICATION BY HATCH, TYP.
- INSTALL IRRIGATION MAINLINE IN COMMON TRENCH WITH DOMESTIC WATER LINE WHERE SHOWN.
- INSTALL 2" MAINLINE PER DETAIL 3/SHEET L2.03.
- INSTALL IRRIGATION CONTROLLER PER DETAIL 11/SHEET L2.03.
- INSTALL IRRIGATION LATERAL LINE AND ISOLATION VALVE TO FUTURE IRRIGATION ZONE, TYP.
- INSTALL SLEEVES PER DETAIL 4/SHEET L2.03, TYP.

IRRIGATION PLAN (NORTH)  
ROSE WAY INDUSTRIAL PARK  
WOODLAND, WASHINGTON

Harper Houf Peterson Righellis Inc.  
ENGINEERS + PLANNERS  
LANDSCAPE ARCHITECTS + SURVEYORS  
205 SE Spokane Street, Suite 200, Portland, OR 97202  
Phone: 503.221.1131 www.hhpr.com

STATE OF WASHINGTON  
REGISTERED  
LANDSCAPE ARCHITECT  
JEFFERY P. CREEL  
CERTIFICATE NO. 1396

DESIGNED:	JPC
DRAWN:	HHPR
CHECKED:	RAV
DATE:	12/15/2020

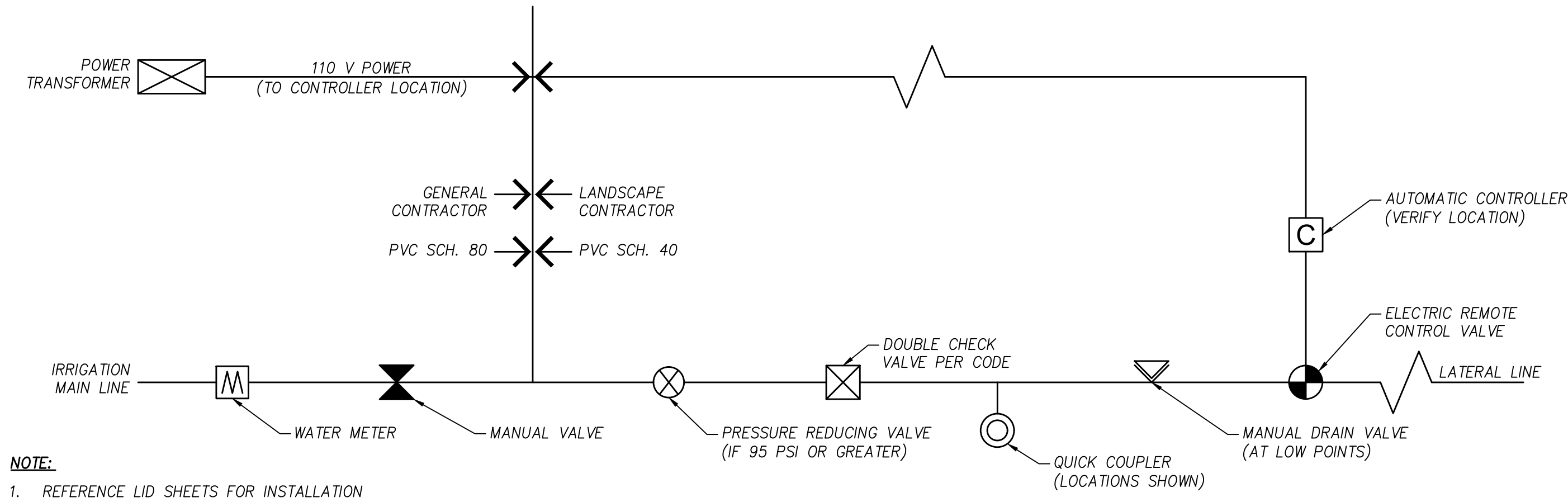
R E V I S I O N S

NO.	DATE	DESCRIPTION

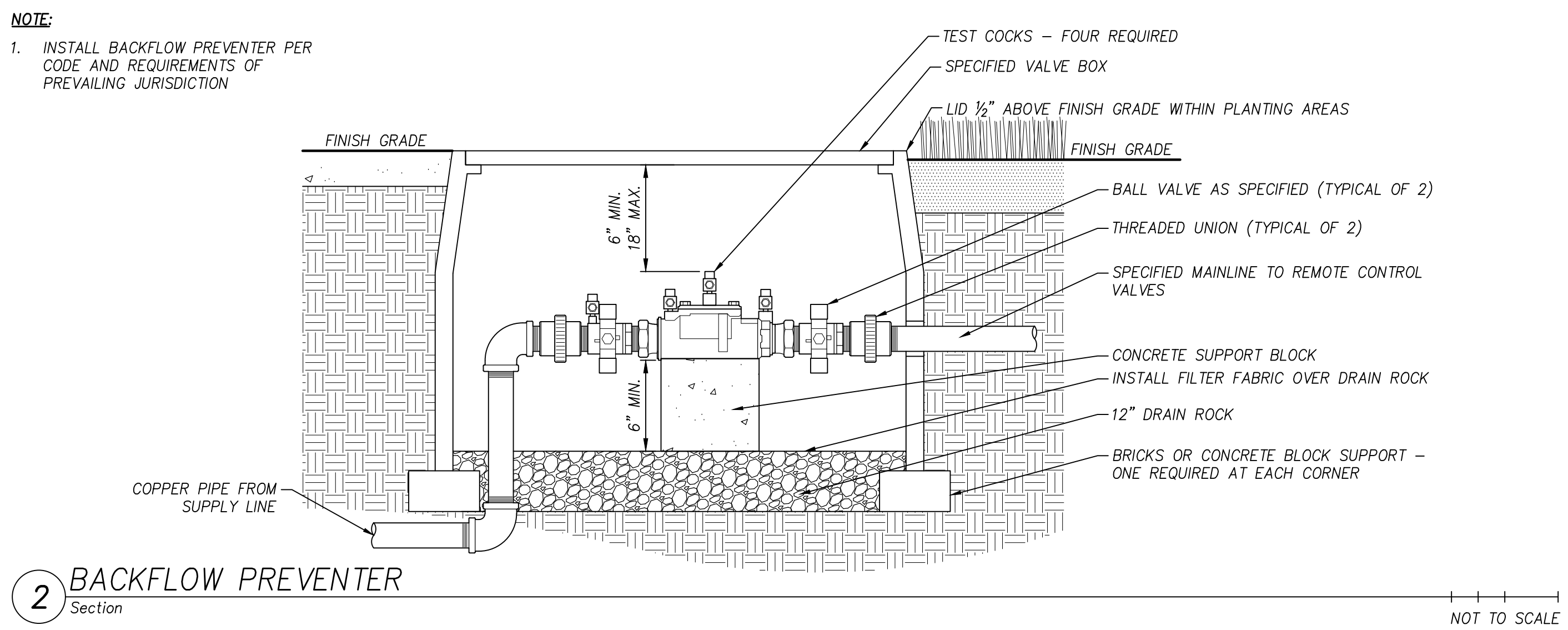
SHEET NO.  
**L2.01**  
JOB NO. PWL-03



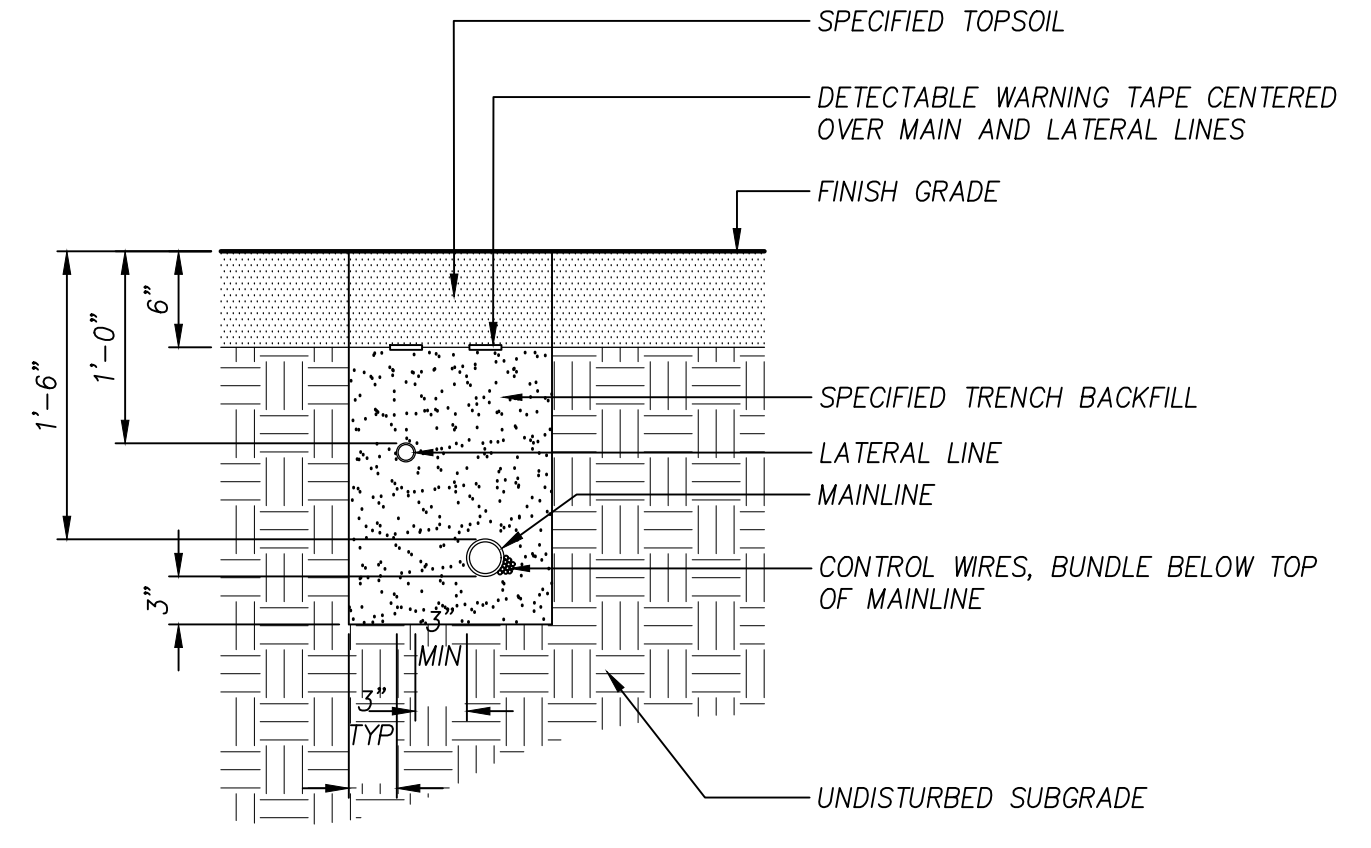




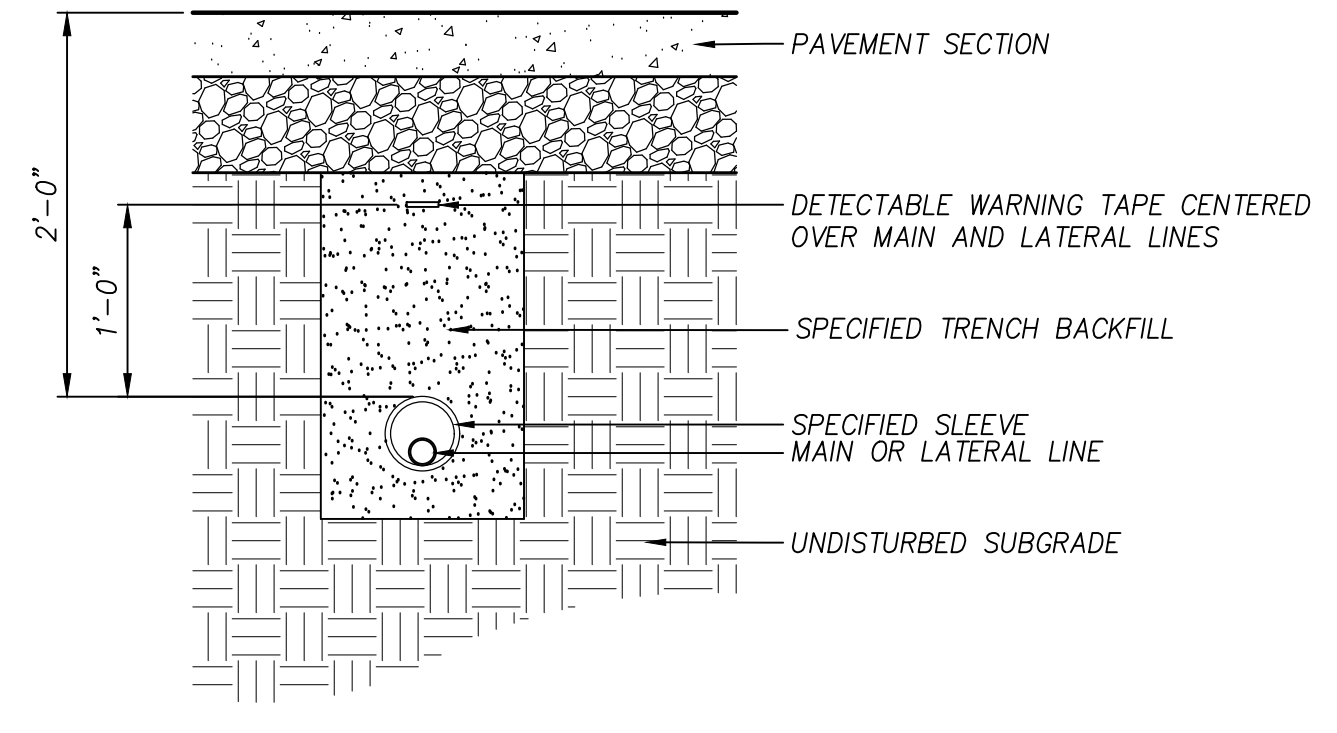
1 POINT OF CONNECTION SCHEMATIC  
NOT TO SCALE



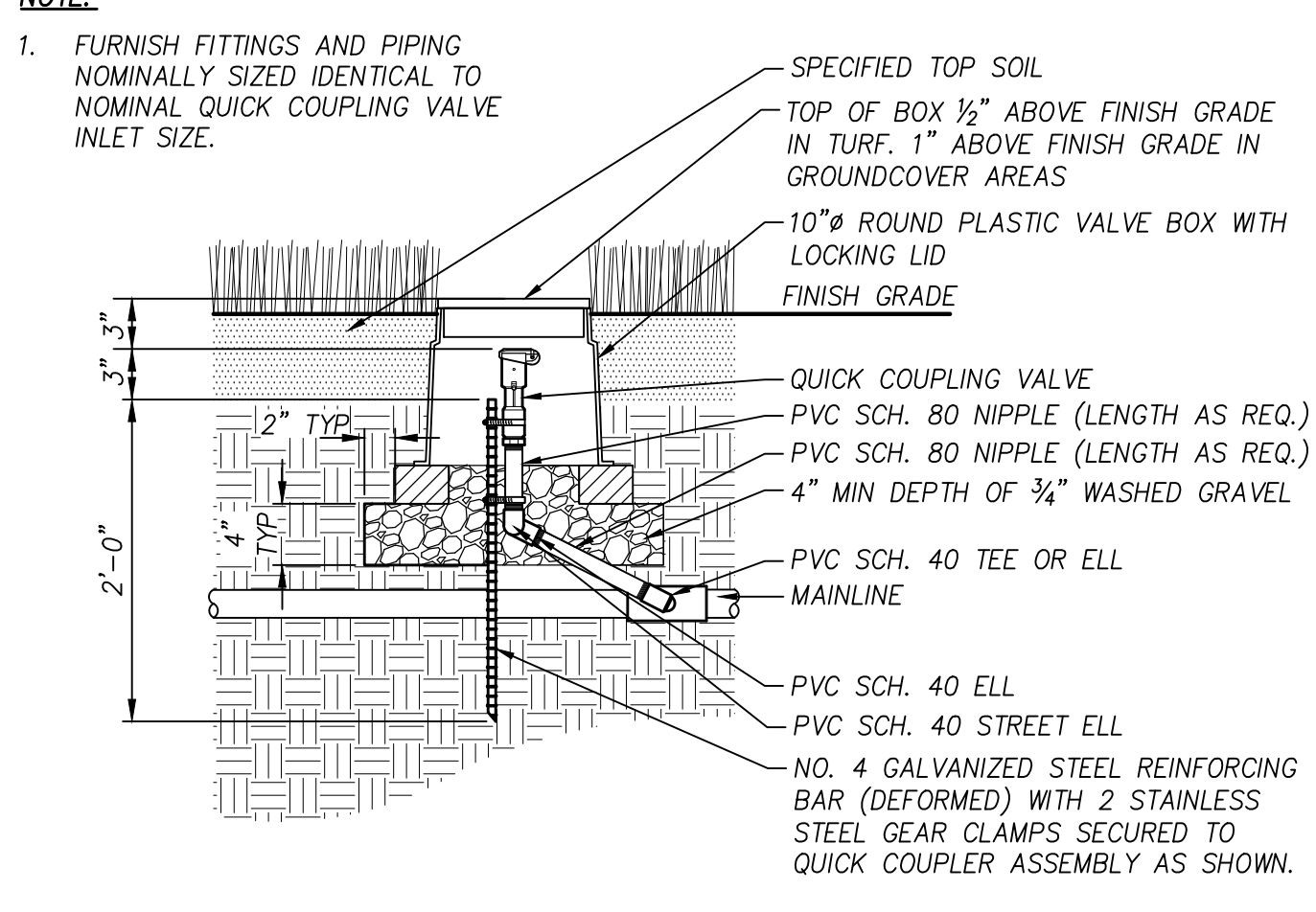
2 BACKFLOW PREVENTER  
NOT TO SCALE



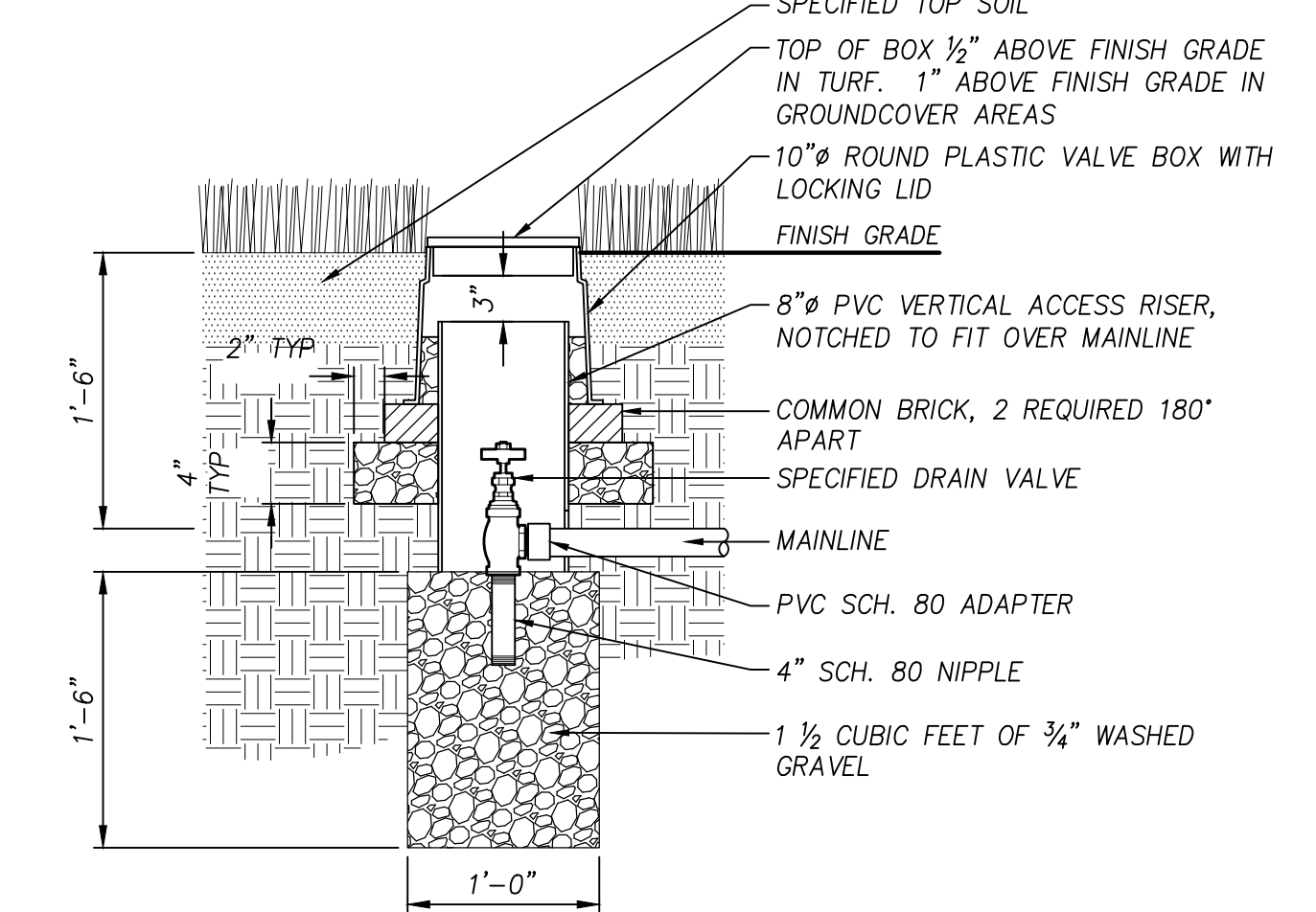
3 TYPICAL TRENCHING  
NOT TO SCALE



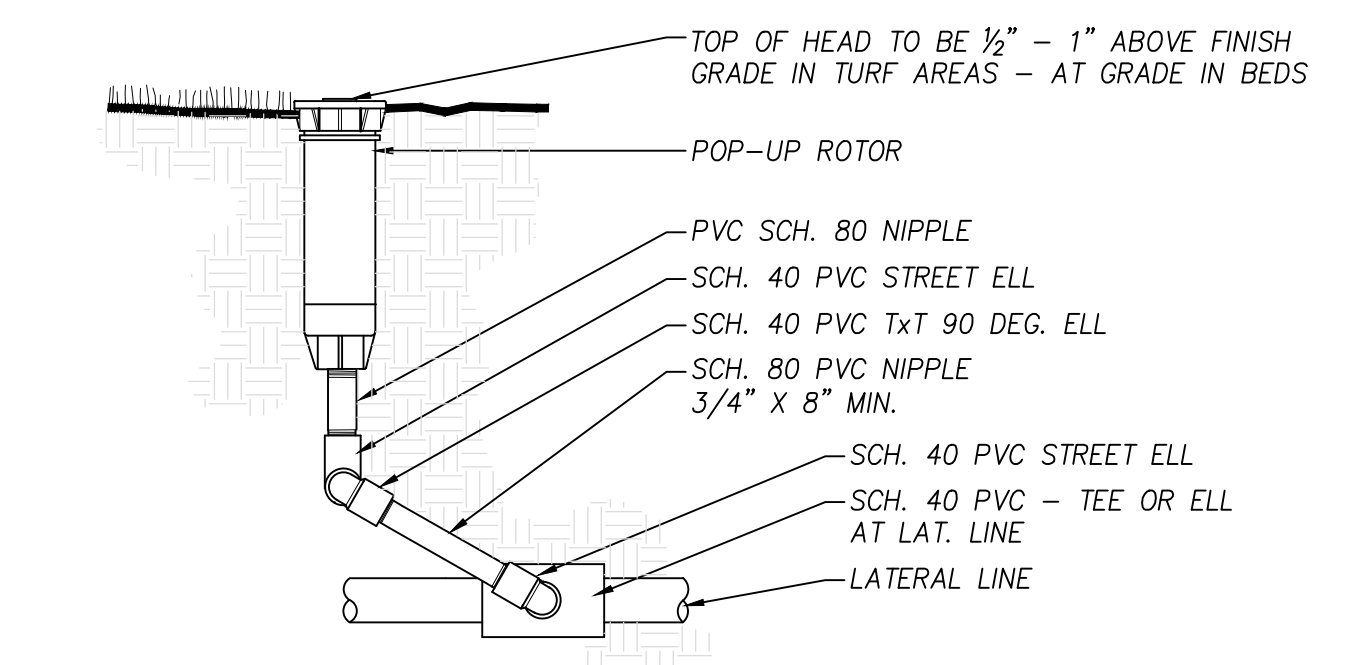
4 SLEEVING  
NOT TO SCALE



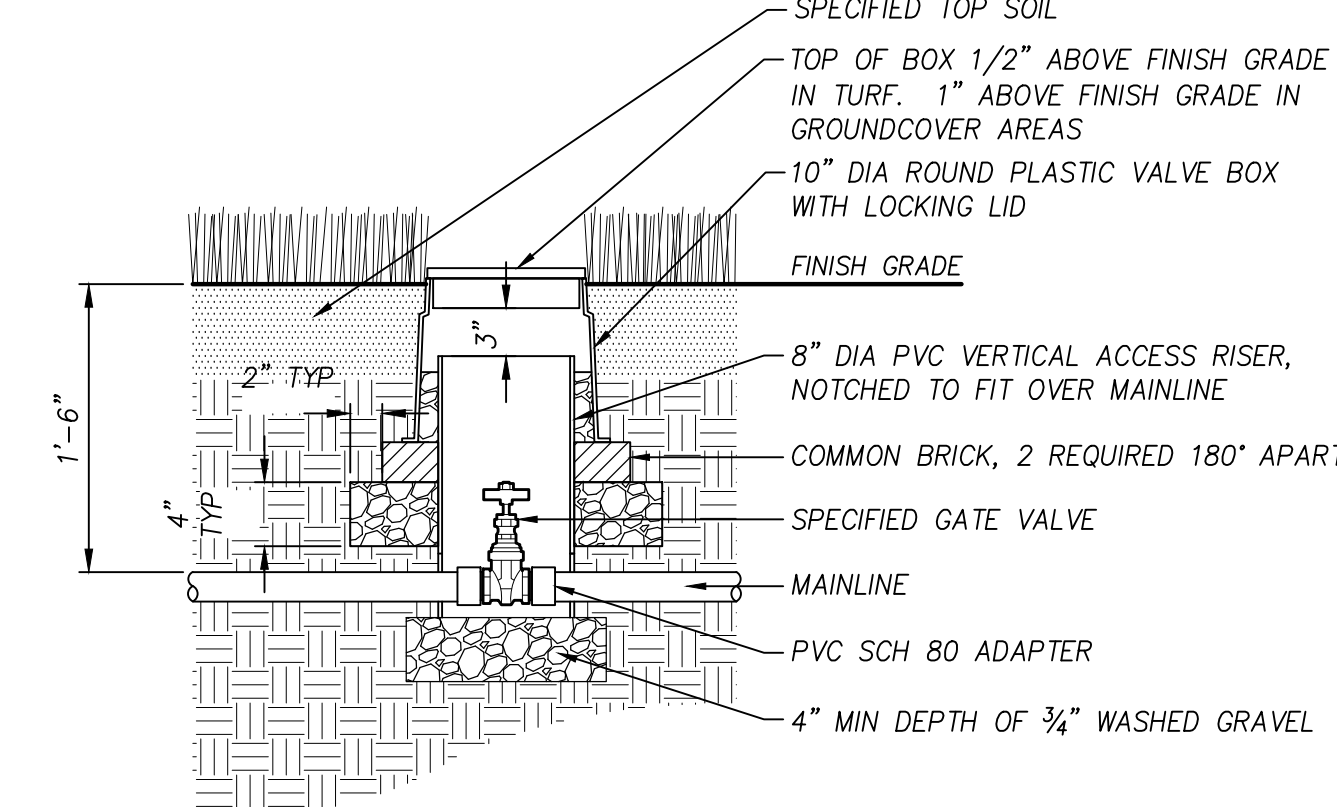
5 QUICK COUPLER  
NOT TO SCALE



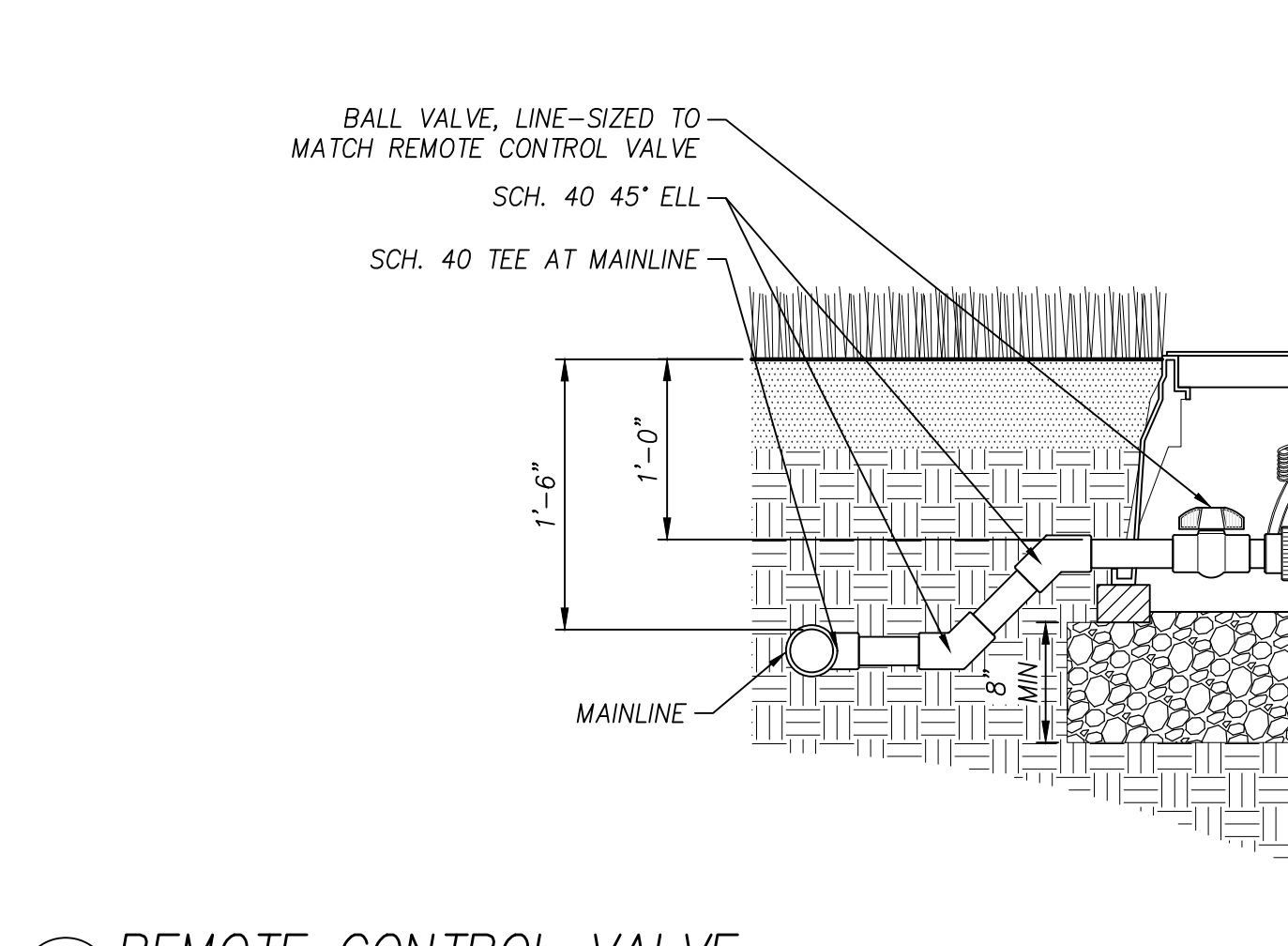
6 MANUAL DRAIN VALVE  
NOT TO SCALE



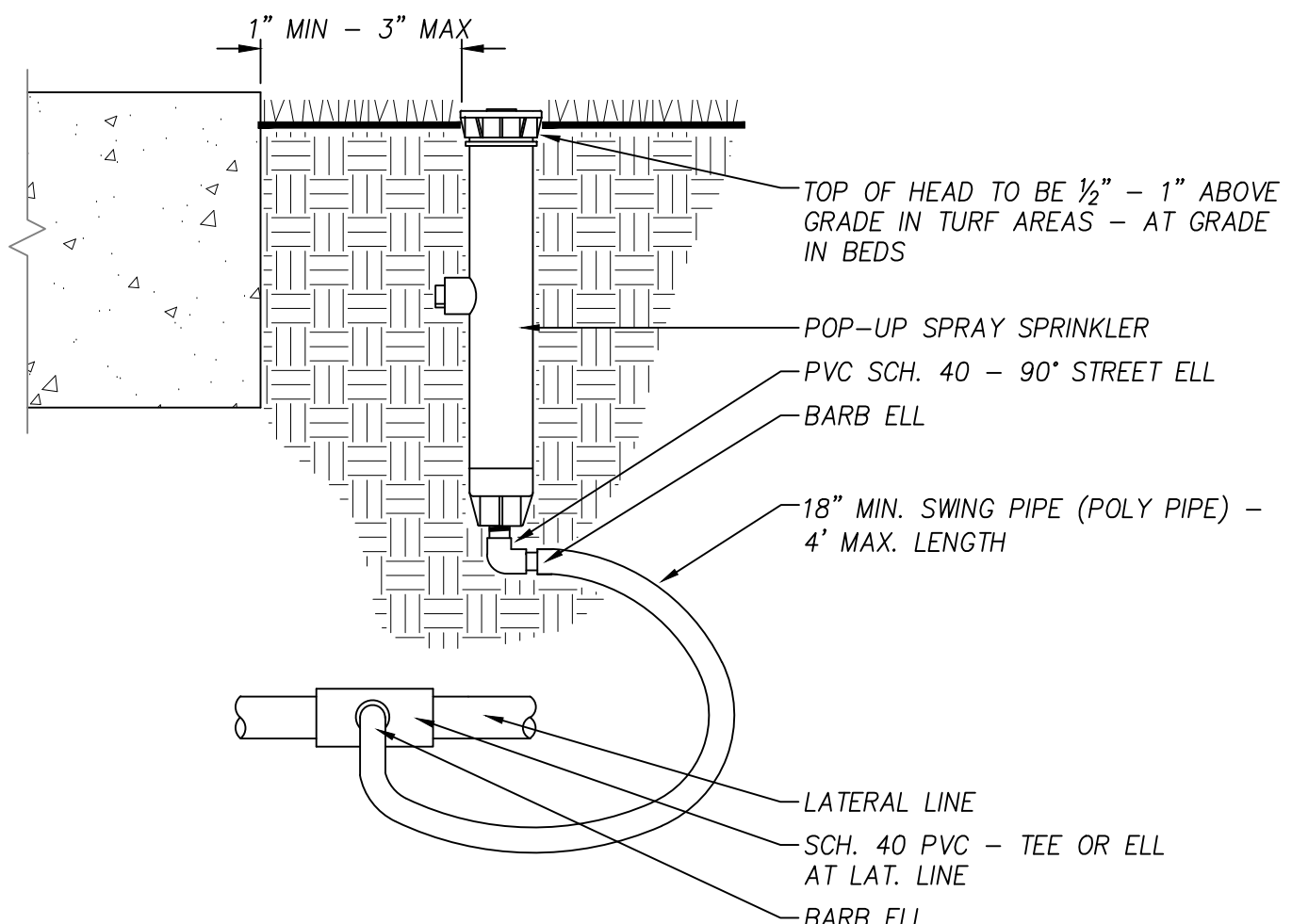
7 ROTOR - SWING JOINT ASSEMBLY  
NOT TO SCALE



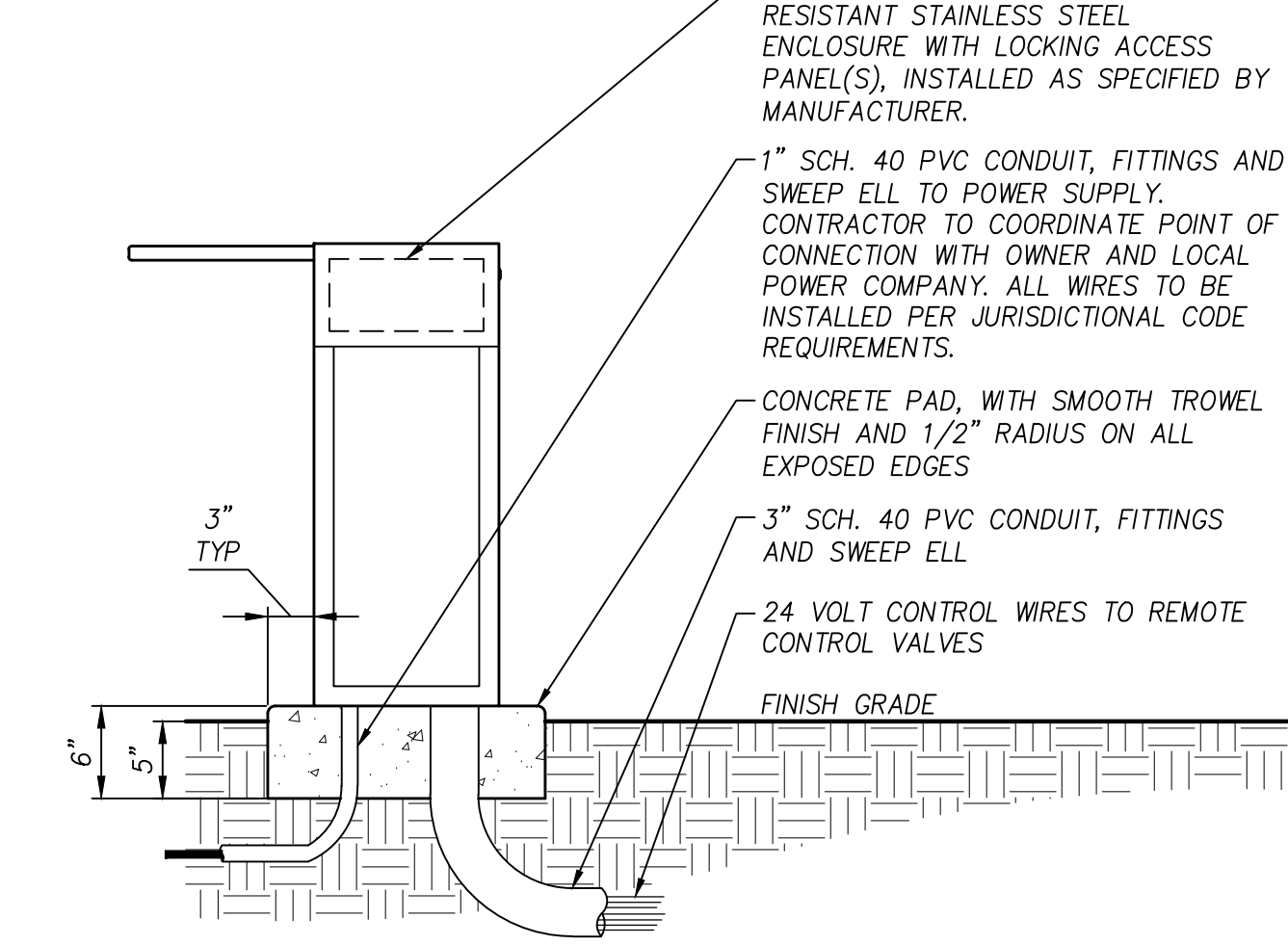
8 ISOLATION VALVE  
NOT TO SCALE



9 REMOTE CONTROL VALVE  
NOT TO SCALE



10 12" POP-UP SPRAY SPRINKLER  
NOT TO SCALE



11 CONTROLLER  
NOT TO SCALE

DESIGNED:	JPC	DATE:	12/15/2020
DRAWN:	HHR		
CHECKED:	RAV		
