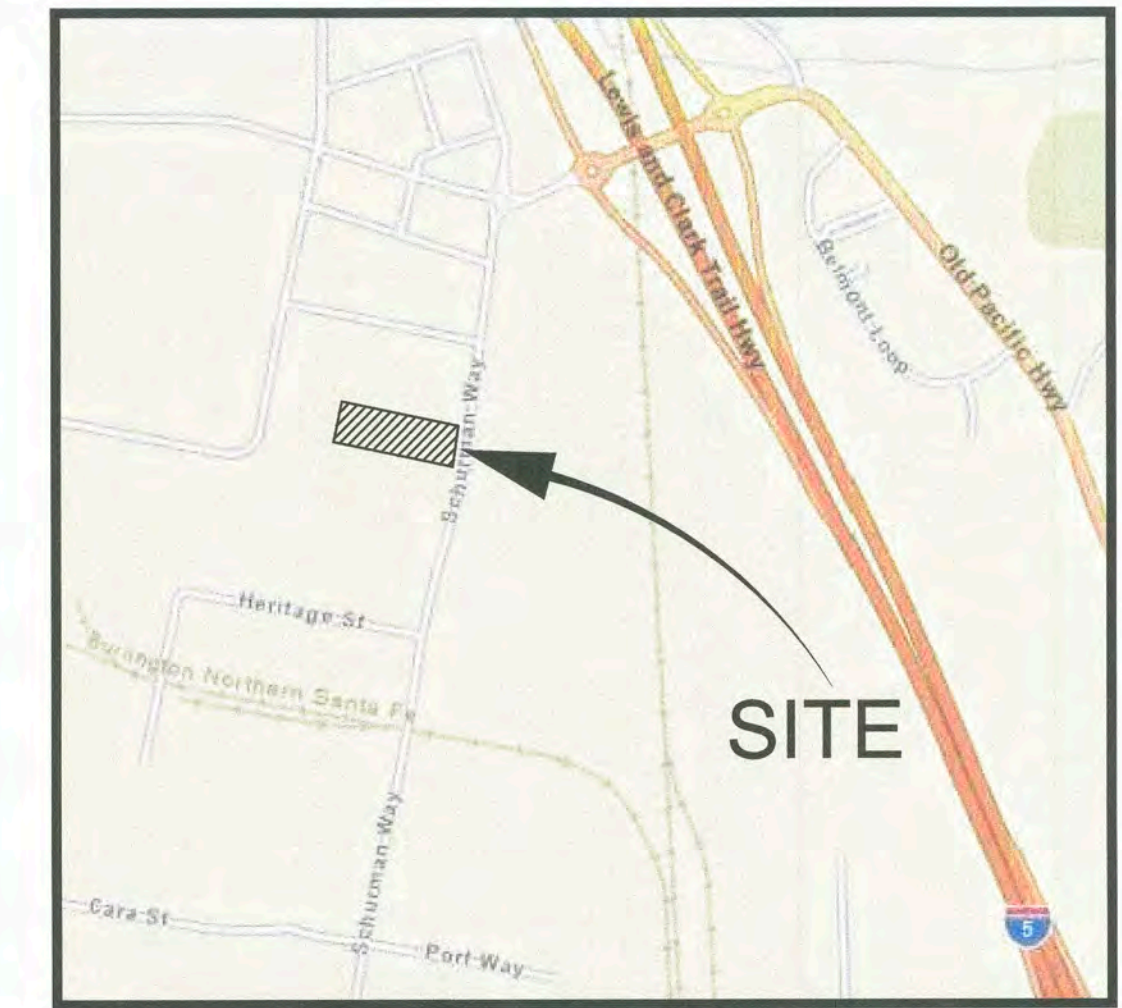


Dawkins Warehouse

Located in the NW 1/4 of Section 13 T5N, R1W, W.M.
City of Woodland, Washington



VICINITY MAP
NOT TO SCALE

Sheet Index

- 01 - Cover Sheet
- 02 - General Notes & Legend
- 03 - Existing Conditions
- 04 - Grading & Erosion Control Plan (West)
- 05 - Grading & Erosion Control Plan (East)
- 06 - Erosion Control Details
- 07 - Drainage & Site Improvement Plan (West)
- 08 - Drainage & Site Improvement Plan (East)
- 09 - Sanitary Sewer & Water Plan
- 10 - Miscellaneous Details
- 11 - Miscellaneous Details
- 12 - City of Woodland Standard Transportation & Drainage Details
- 13 - City of Woodland Standard Water Details
- 14 - City of Woodland Standard Water Details
- 15 - City of Woodland Standard Sewer Details

GENERAL INFORMATION:

Applicant:
Wilson Architects PLLC
Attn: Ryan Wilson
404 E 15th St. #7
Vancouver, WA 98663
Phone: (360) 696-4722
Fax: (360) 696-0392
Email: Ryan@WilsonArchitects.us

Civil Engineer:
PLS Engineering,
Andrew Gunther
604 W Evergreen Blvd.
Vancouver, WA 98660
Ph. (360) 944-6519
Fax (360) 944-6539
e-mail: Andrew@PLSEngineering.com

Owner/Developer:
Pacific Golf and Turf LLC
Mark Dawkins
14625 SE Stark St.
Portland, OR 97233

Site Address/Parcel Number:
1951 Schurman Way
Woodland, WA 98674
Parcel #507870102

Project Benchmark is a 9/16" stainless steel rod with datum point, sleeve, and Cowlitz County GIS Department access cover stamped "Dike Access 1993". Access benchmark by taking Exit 22 from I-5, go easterly 0.1± mile to gravel road left, turn left and go northerly on the gravel road 0.10 miles to the station on the left. Benchmark elevation 38.205, NAVD 88.

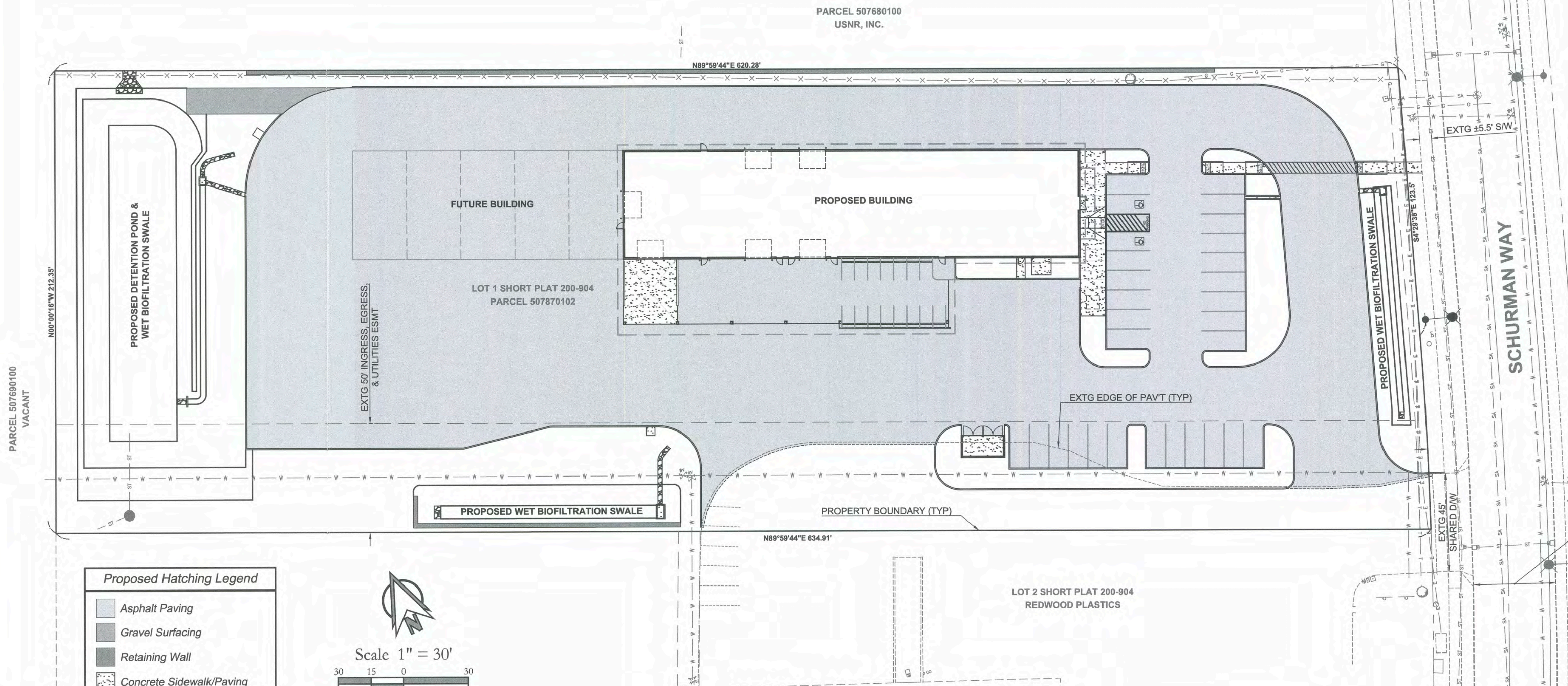
A minimum of 2 full working days and a maximum of 10 working days prior to beginning construction, the Contractor shall call 1-800-553-4344 (Northwest Utilities Notification Counter) for location mark-up of existing utilities.

All work in City right-of-way will conform to the requirements of the City of Woodland. A right-of-way permit from the City will be required prior to work in the right-of-way.

All site grading and erosion control, construction, materials and workmanship shall conform to the Engineering Standards of the City of Woodland and the latest edition of the "Standard Specifications for Road, Bridge, and Municipal Construction" as prepared by WSDOT/APWA.

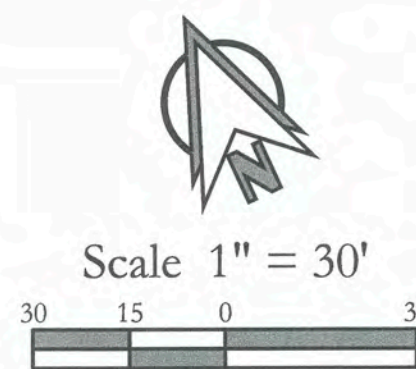
Any archaeological findings shall be immediately (within 24 hours) reported to the City Planning Department and any state agency required by Washington State law. Construction in the vicinity of the findings shall be ceased immediately and the findings shall be protected from outside intrusion.

A pre-construction conference shall be held prior to the start of construction.



Proposed Hatching Legend

- Asphalt Paving
- Gravel Surfacing
- Retaining Wall
- Concrete Sidewalk/Paving



Clark-Cowlitz Fire Rescue
Plan Approved by CCFR
Signed By: *Jack Taylor* Date: 04/27/2023

City of Woodland
Public Works Department
PO Box 9
236 Ste B Davidson
Woodland, WA 98674 (360) 225-7999
www.ci.woodland.wa.us (360) 225-7476 fax

Plans reviewed for compliance with
City Standards and Policies
Permit Number: SPR-22-004
Recommended for Approval:
[Signature] DATE: 6-12-23
PUBLIC WORKS DIRECTOR
NEED TO ADD ELECTRICAL PAGE.

Improvement Summary:

STREET IMPROVEMENTS	0	LF
WATER MAIN FOOTAGE	21	LF
SEWER MAIN FOOTAGE	0	LF
SEPTIC SYSTEM DECOMMISSIONED	0	EA
TRENCHING WITHIN CITY RIGHT-OF-WAY	0	LF
TOTAL IMPERVIOUS SURFACE	88,752	SF
PRIVATE IMPERVIOUS SURFACE	2.04	AC
GRADING:	CUT 524* CY	FILL 4,782* CY

*Grading quantities provided are gross volumes between existing grade & proposed finish grade with no adjustments for strippings, imported rock and asphalt, compaction factors, trench spoils, or other construction factors.

Cover Sheet For:
Dawkins Warehouse
A Site Located in the City of Woodland, Washington

Revisions

1	
2	
3	
4	
5	
6	



Project No. 3405
SCALE: H: 1" = 30'
V: N/A
DESIGNED BY: TJL
DRAFTED BY: TJL
REVIEWED BY: AJG

GENERAL NOTES

Existing utilities shown on the plans are based on information from the project topographic survey and no guarantee is implied as to location accuracy and the existence or nonexistence of other utilities. Contractor shall field locate all existing utilities prior to construction.

All construction, materials, and workmanship shall conform to the latest edition of "Standard Specifications for Road, Bridge and Municipal Construction" prepared by WSDOT/APWA, and the standards and practices of the City of Woodland Department of Public Works.

All pavement shall be straight cut prior to paving. Existing pavement shall be removed as necessary to provide a smooth transition for both ride and drainage.

Any existing utilities or paving damaged in the course of completing the construction shall be repaired at the contractor's expense.

Contractor shall report all damages immediately to the project engineer at (360) 944-6519 or contact the inspector on the job. Any damage to structures in the public right-of-way will need to be repaired to City of Woodland Transportation standards.

A minimum of 48 hours prior to beginning construction, the Contractor shall call 1-800-424-5555 (Utility Coordinating Council) for location mark-up of existing utilities.

There are no known wells or septic systems on site. Should any be encountered during construction, they shall be properly abandoned in accordance with Cowlitz County Public Health and Washington State Department of Ecology requirements.

The contractor shall keep a legible approved set of plans on the project site at all times.

The contractor shall perform all work necessary to complete this project in accordance with the plans including such incidentals as may be necessary to meet applicable agency requirements.

The contractor shall maintain full compliance with all safety and pollution regulations as applicable to the project including compliance with the inspection and reporting requirements of the Construction Stormwater NPDES permit issued by the Washington Department of Ecology for this project.

Discrepancies between these drawings and actual field conditions should be reported to the engineer who will address the resolution of such discrepancies. Work done by the contractor after discovery of discrepancies is completed at the contractor's risk.

Any significant deviations from the plans will require a request from the applicant's engineer and approval by the City's engineer.

The applicant may be required to provide flagging, signs, and other traffic control devices for safe truck access onto public streets. All such devices shall conform to the standards established in the latest adopted edition of the "Manual on Uniform Traffic Control Devices"(MUTCD) published by the U.S. Department of Transportation and the Modifications to the MUTCD for Streets and Highways for the State of Washington.

If any cultural resources are discovered in the course of undertaking a development activity, construction shall stop immediately and the Office of Archeology and Historic Preservation in Olympia and the City of Woodland Public Works department shall be notified. Failure to comply with these requirements may constitute a Class C felony, subject to imprisonment and/or fine.

The property owner/developer shall be responsible for obtaining all applicable permits including but not limited to permits for hydrostatic tests and dewatering discharges prior to commencing construction.

A preconstruction conference is required with the City of Woodland Public Works before utility or site construction begins.

See the detail sheets in this plan set for additional standard City of Woodland construction notes and requirements.

SITE GRADING AND PAVING

The contractor shall review and follow the recommendations in the Geotechnical Engineering Study dated June 17th, 2011, prepared specifically for this site by Geotechnical & Environmental Services Inc. The report includes requirements for stripping, scarification of the till zone, structural fill materials and compaction requirements, building pad preparation, and other construction elements.

Site grading activities should be performed in accordance with requirements specified in the 2021 International Building Code (IBC), Chapter 18 and Appendix J, subject to any exceptions identified by the project geotechnical engineer or identified in the site-specific geotechnical report.

All excavations should be made in accordance with applicable Federal and State Occupational Safety and Health Administration regulations.

Site preparation, soil stripping, and grading activities should be observed and documented by an experienced geotechnical engineer or designated representative. Imported materials shall be approved by the geotechnical engineer prior to their use as fill material.

Finished subgrade conditions shall be approved by the project geotechnical engineer prior to the placement of any fill materials. Method of subgrade approval shall be at the discretion of the geotechnical engineer and may require a loaded dump truck for performance of a proof-roll.

SITE GRADING AND PAVING (CONTINUED)

Fill areas shall be structurally filled with surplus suitable materials from cut areas or imported structural fill. Select materials shall be placed in fill areas in lifts not to exceed 8" (compacted depth of lift). Each lift shall be compacted per the recommendations of the geotechnical report. Fill materials should be free of organics, and rock fragments in excess of 6" in dimension.

All compaction work shall be done per the geotechnical engineer's recommendations.

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 comply with all City of Woodland requirements such as; maintaining and/or updating the erosion control plan as necessary to control site erosion, providing a schedule of construction operations and any other pertinent data relative to site earth work.

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 unless otherwise agreed upon with the owner.

All surfaces shall be graded smooth and free of irregularities that might accumulate surface water unless otherwise indicated on the grading and/or stormwater plans.

All grading operations and disturbed surface stabilization shall be in accordance with the project Grading & Erosion Control Plan.

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.

STORM SEWERS

Storm pipes shall be the size identified on the plans and shall be installed at the slope and elevation specified.

Materials for storm sewer pipes and rain drain piping shall be Corrugated Polyethylene Storm Sewer Pipe per WSDOT Specifications Section 9-05.20, except where otherwise specified as ductile iron or PVC C-900 pipe due to reduced cover conditions.

Trench excavation shall meet the requirements of the City of Woodland Public Works Engineering Standards for Construction.

On-site (private) storm sewer pipe bedding and backfill shall comply with Woodland details D-15 and D-16 on sheet 12 unless alternate bedding and/or backfill materials are approved by the project geotechnical engineer.

The stormwater facilities shall be privately owned and maintained.

Storm catch basins shall be fitted with an approved trap per the detail sheet 11.

The approximate location of roof drain downspouts and piping based on preliminary architectural drawings is shown on the plans. The contractor shall coordinate the exact location of roof drains with the project plumbing and/or building plans. Cleanouts shall be installed on all roof drain piping as required to comply with the Plumbing Code.

EROSION AND SEDIMENT CONTROL

Approval of this Erosion and Sediment Control (ESC) plan does not constitute an approval of permanent road or drainage design.

The implementation of these ESC plans and the construction, maintenance, replacement, and upgrading of the ESC facilities is the responsibility of the contractor until all construction is completed and approved, and vegetation is established.

The ESC facilities shown on this plan must be constructed in conjunction with all clearing and grading activities, and in such a manner as to ensure that sediment and sediment laden water do not enter the drainage system or roadways or violate applicable water standards.

Care should be taken to not disturb more area than needed for construction requirements. All disturbed soils surfaces are to be stabilized. Stabilization of disturbed soil areas will consist of: hydroseeding or handseeding, mulching, placing of erosion control blankets or plastic in landscaping soil areas. It will also consist of paving and concrete work in driving, parking and sidewalk areas. All seeded areas are to be fertilized, watered and maintained to enhance the immediate regrowth of vegetation.

Material stockpiles are to be protected from precipitation by the following means:

- Temporary - cover piles with tarps or plastic sheeting weighted with tires, lumber or concrete blocks.
- Permanent - cover piles with tarps or plastic, or reseed. Perimeter areas around piles are to be surrounded with erosion control filter fabric fences until soils surface is stabilized with reseeding.

EROSION AND SEDIMENT CONTROL (CONTINUED)

The ESC facilities shall be inspected daily by the contractor and maintained as necessary to ensure continuous functioning. Inspection and maintenance shall include, but not be limited to:

- Removal of trapped silts at silt barriers, silt traps, or points of accumulation.
- Additional protective measures, as required, due to job site conditions.
- Monitoring of vehicles leaving the site to minimize transmission of loose soils to the adjacent public roadways and private pavement areas. The contractor shall actively work to minimize travel between unstabilized areas and adjacent road and parking areas to minimize the likelihood of sediment transport to existing paved surfaces.

If sediment is transported onto a paved surface, the surface is to be cleaned thoroughly at the end of each day during dry weather and immediately during rain events.

The ESC facilities on inactive sites shall be inspected and maintained a minimum of once a month or within the 24 hours following a storm event.

At no time shall more than one foot of sediment be allowed to accumulate within a trapped catch basin. All catch basins and conveyance lines shall be cleaned prior to paving. The cleaning operation shall not flush sediment laden water into the downstream system.

This sedimentation and erosion control plan is intended to be utilized as a guide to control the transportation of loose soils from the property that cause water quality and nuisance problems outside of the construction area.

Depending upon the Contractor's construction practices, some portions of the proposed erosion control plan may be varied according to the job site condition. All changes to the plan must be reviewed and approved by the Engineer prior to adjustment.

See sheet 06 for the City's standard erosion control notes which also apply to this project.

SANITARY SEWER CONSTRUCTION NOTES

Sanitary sewer laterals shall be 6" in size, installed at a minimum slope of 0.01 ft/ft unless otherwise noted. Materials shall be ASTM D3034 .

Prior to backfilling sewer service lateral ends, the Contractor shall notify the engineer in a timely manner so that construction "Record Drawing" information may be gathered. If the Contractor backfills prior to the gathering of required information, the Contractor shall be required to expose the ends of service laterals and sewer main cleanouts.

Bedding and backfill for sanitary sewer construction shall be per City of Woodland Standard Detail S-02.

See the sheet 15 for additional City of Woodland Standard Sewer notes.

WATER SYSTEM CONSTRUCTION NOTES

Water system construction, materials, and workmanship for pipes 4" diameter and larger shall conform to the "2022 Standard Specifications for Road, Bridge & Municipal Construction" prepared by the WSDOT/APWA, and the City of Woodland Public Works Engineering Standards for Construction.

The contractor is responsible for verifying size, location, and material of all existing utilities prior to construction and notifying the engineer of discrepancies affecting the constructibility of the design.

Private water service line construction and materials shall be compliant with the latest version of the International Plumbing Code.

Minimum pipe cover shall be 36" for all waterlines.

Pipe bedding and backfill for waterlines shall be completed per the City of Woodland standard detail W-13 on sht 14.

The City of Woodland Public Works Department shall be notified 24 hours in advance of making connection to the existing water system.

Thrust blocks shall be poured against firm, undisturbed soils. If there are any locations on this site where it is not feasible to pour the thrust block against undisturbed soils, then the thrust blocks shall be supplemented or replaced by the use of restrained joints.

All mechanical joint fittings shall include Megalug or approved equal restraints.

All valve boxes, cleanouts, etc. shall be adjusted to finish grade.

Location of connections of water lines to the building plumbing system should be considered approximate. The contractor shall coordinate actual connection locations with the building plumbing plans.

DCVA's shall be selected from the Washington State Department of Health's approved list of backflow prevention devices.

See the sheet 13 for additional City of Woodland Standard Water notes.

Linetype Legend		Master Symbol Legend	
Existing Road Right-of-Way		Existing Fire Hydrant	
Existing Road Centerline		Existing Property Corner	
Existing Property Line		Existing Sanitary Sewer Manhole	
Existing Pavement Edge		Existing Storm Catch Basin	
Existing Sanitary Sewer		Existing Storm Manhole	
Existing Waterline		Existing Area Drain	
Existing Storm Sewer		Existing Water Meter	
Existing Telephone Line		Existing Water Valve	
Existing Overhead Power		Existing Water Manhole	
Existing Gas		Existing Telephone Vault	
Existing Chain Link Fence		Existing Power Meter	
Existing Cyclone Fence		Existing Guy Wire	
Existing Wood Fence		Existing Power Pole	
Existing Sidewalk		Existing Power Pole w/Underground	
Existing Electric Line		Existing Street Light	
Existing Ground Contour		Existing Street Light & Underground Power	
Proposed Property Line		Existing Telephone Riser	
Proposed Storm Line		Existing Gas Meter	
Proposed Rain Drain		Existing Stand Pipe	
Proposed Sanitary Lateral		Existing Power Riser	
Proposed Water Pipe		Existing Street Sign	
Proposed Water Service		Existing Coniferous Tree	
Proposed Curb		Existing Deciduous Tree	
Proposed Edge of Pavement		Proposed Sanitary Cleanout	
Proposed Contour		Proposed Water Meter	
Proposed Hatching Legend		Proposed Water Double Check Valve	
Asphalt Paving		Proposed Fire Hydrant	
Gravel Surfacing		Proposed Area Drain	
Retaining Wall		Proposed Storm Cleanout	
Concrete Sidewalk/Paving		Proposed Roof Down Spout	
		Proposed Storm Catch Basin	

ENGINEERING

PLS

604 W. Evergreen Blvd., Vancouver, WA 98660 | PH (360) 944-0519 | Fax (360) 944-6539

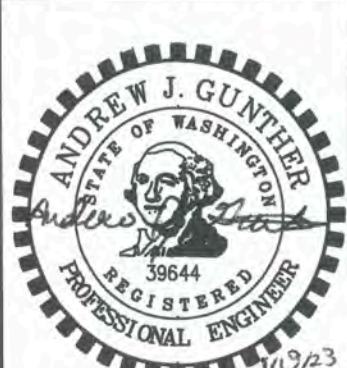
Dawkins Warehouse

A Site Located in the City of Woodland, Washington

Engineering - Surveying - Planning

General Notes & Legend For:

Revisions					
1	2	3	4	5	6



Project No. 3405
SCALE: H: N/A
V: N/A
DESIGNED BY: TJL
DRAFTED BY: TJL
REVIEWED BY: AJG

02

15

Dawkins Warehouse

A Site Located in the City of Woodland, Washington

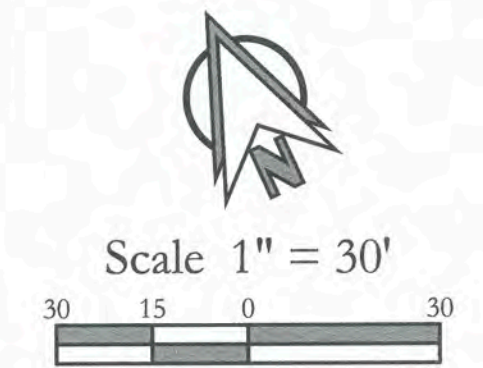
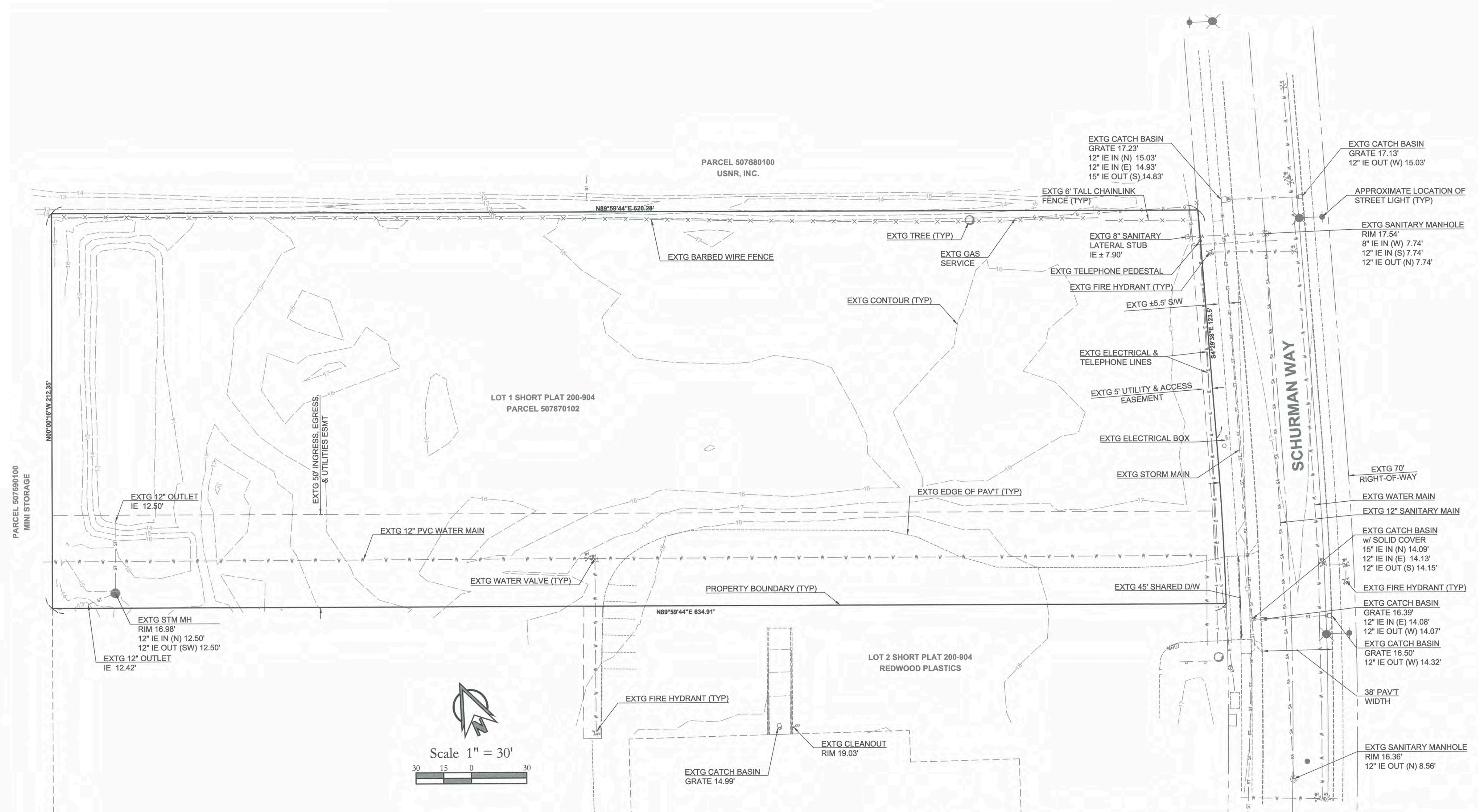
Existing Conditions For:

Revisions

1	2	3	4	5	6
---	---	---	---	---	---



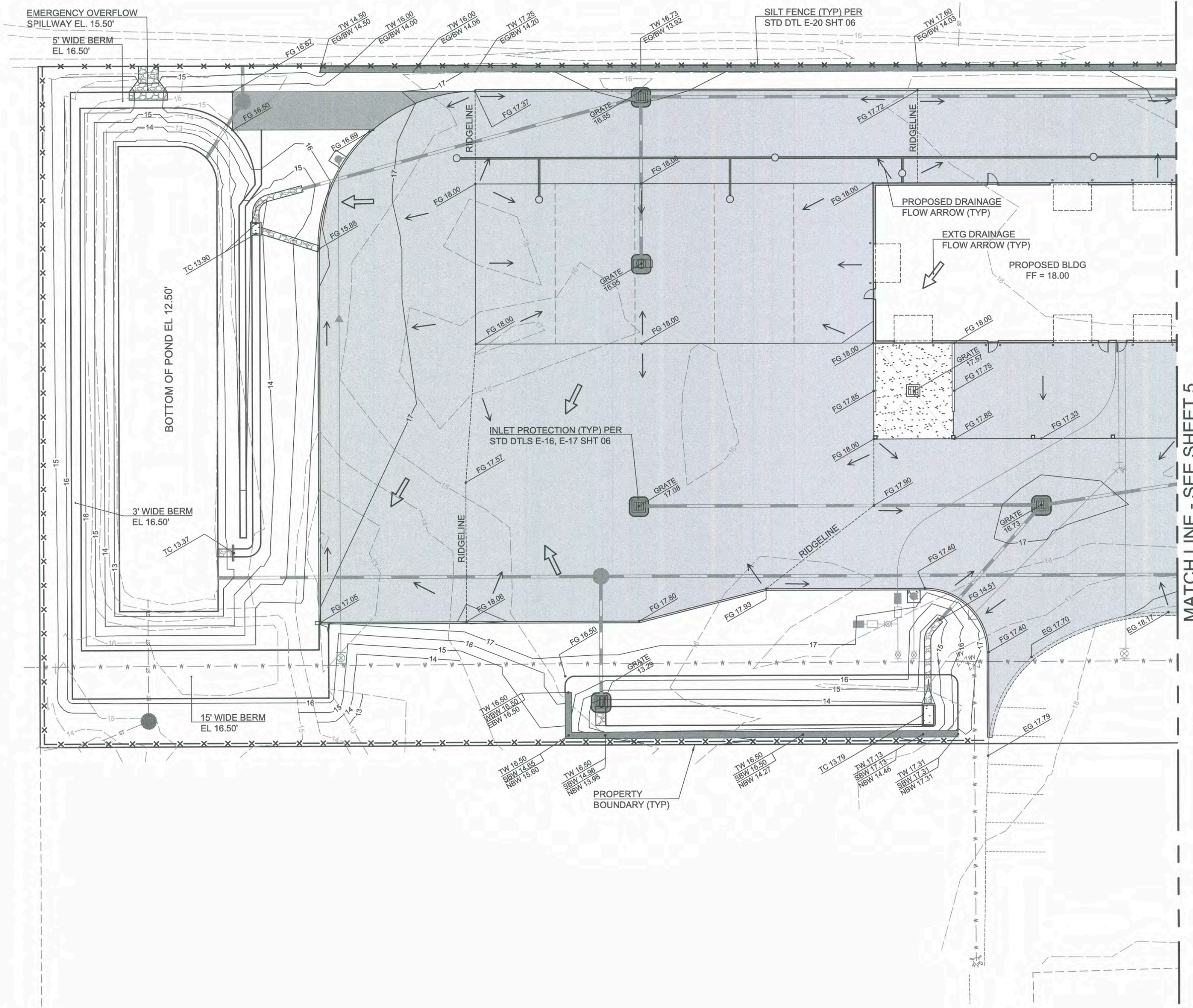
Project No. 3405
 SCALE: H: 1" = 30'
 V: N/A
 DESIGNED BY: TJL
 DRAFTED BY: TJL
 REVIEWED BY: AJG



BENCHMARK:
 Project Benchmark is a 9/16" stainless steel rod with datum point, sleeve, and Cowlitz County GIS Department access cover stamped "Dike Access 1993". Access benchmark by taking Exit 22 from I-5, go easterly 0.1+ mile to gravel road left, turn left and go northerly on the gravel road 0.10 miles to the station on the left. Benchmark elevation 38.205, NAVD 88.

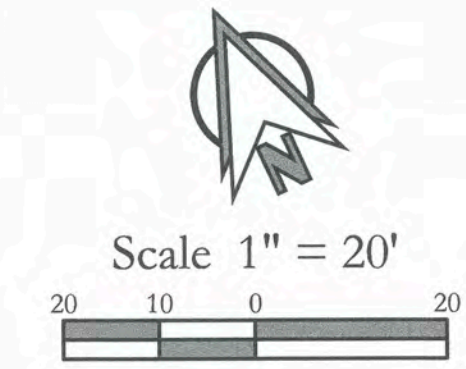
Existing Road Right-of-Way	---
Existing Road Centerline	---
Existing Property Line	---
Existing Pavement Edge	---
Existing Sanitary Sewer	---SA---SA---SA---
Existing Waterline	---W---W---W---
Existing Storm Sewer	---ST---ST---ST---
Existing Telephone Line	---T---T---T---
Existing Overhead Power	---OHP---OHP---OHP---
Existing Gas	---G---G---G---
Existing Chain Link Fence	---X---X---X---
Existing Cyclone Fence	---O---O---O---
Existing Wood Fence	---□---□---□---
Existing Sidewalk	---
Existing Electric Line	---E---E---E---
Existing Ground Contour	---100---

Existing Fire Hydrant	⊕
Existing Property Corner	•
Existing Sanitary Sewer Manhole	⊙
Existing Storm Catch Basin	⊙
Existing Storm Manhole	⊙
Existing Area Drain	⊙
Existing Water Meter	⊙
Existing Water Valve	⊙
Existing Water Manhole	⊙
Existing Telephone Vault	⊙
Existing Power Meter	⊙
Existing Guy Wire	⊙
Existing Power Pole	⊙
Existing Power Pole w/Underground	⊙
Existing Street Light	⊙
Existing Street Light & Underground Power	⊙
Existing Telephone Riser	⊙
Existing Gas Meter	⊙
Existing Stand Pipe	⊙
Existing Power Riser	⊙
Existing Street Sign	⊙
Existing Coniferous Tree	⊙
Existing Deciduous Tree	⊙



GRADING SPOT ELEVATION ABBREVIATIONS
 TC = TOP OF CURB OR TOP OF CONCRETE ELEVATION
 FG = FINISH GRADE AT TOP OF PAVT OR EXTERNAL TO BLDG
 SW = FINISH GRADE FOR SIDEWALK
 EG = EXTG GRADE AT EDGE OF PAVT (FOR REFERENCE)
 GRATE = CATCH BASIN OR INLET RIM ELEVATION
 TW = FINISHED GRADE AT TOP OF WALL
 BW = FINISHED GRADE AT BOTTOM OF WALL
 NBW = FINISHED GRADE AT BOTTOM OF WALL ON NORTH SIDE
 EBW = FINISHED GRADE AT BOTTOM OF WALL ON EAST SIDE
 SBW = FINISHED GRADE AT BOTTOM OF WALL ON SOUTH SIDE
 WBW = FINISHED GRADE AT BOTTOM OF WALL ON WEST SIDE

- GRADING NOTES:**
- 1 ALL TOP OF CURB ELEVATIONS ARE 0.5' ABOVE PAVEMENT FINISH GRADE (FG) ELEVATION SHOWN UNLESS OTHERWISE INDICATED.
 - 2 SIDEWALK CROSS-SLOPES SHALL NORMALLY BE 2% TOWARD ADJACENT PAVEMENT (AWAY FROM THE BUILDING) UNLESS OTHERWISE INDICATED ON THIS PLAN BY SPOT GRADES.
 - 3 EXCEPT WHERE OTHERWISE NOTED BY FG ELEVATIONS, FINISH GRADE EXTERNAL TO THE BUILDING IS EQUAL TO BLDG FINISH FLOOR.



Proposed Hatching Legend

	Asphalt Paving
	Gravel Surfacing
	Retaining Wall
	Concrete Sidewalk/Paving

Grading & Erosion Control Plan (West) For:

Dawkins Warehouse

A Site Located in the City of Woodland, Washington

Engineering - Surveying - Planning | 604 W. Evergreen Blvd., Vancouver, WA 98660 | PH (360) 944-6519 | FX (360) 944-6539

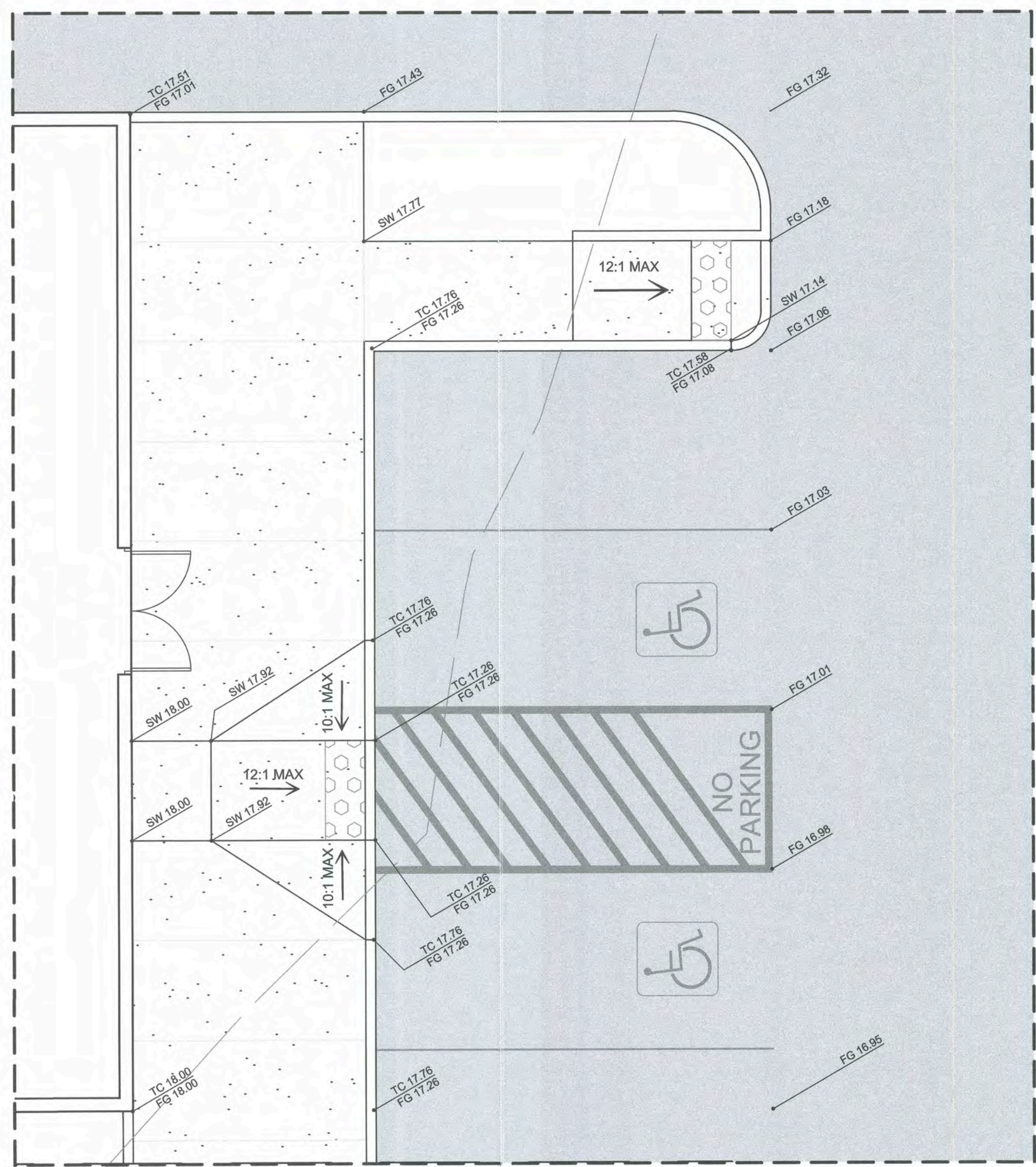
PLS ENGINEERING

Revisions

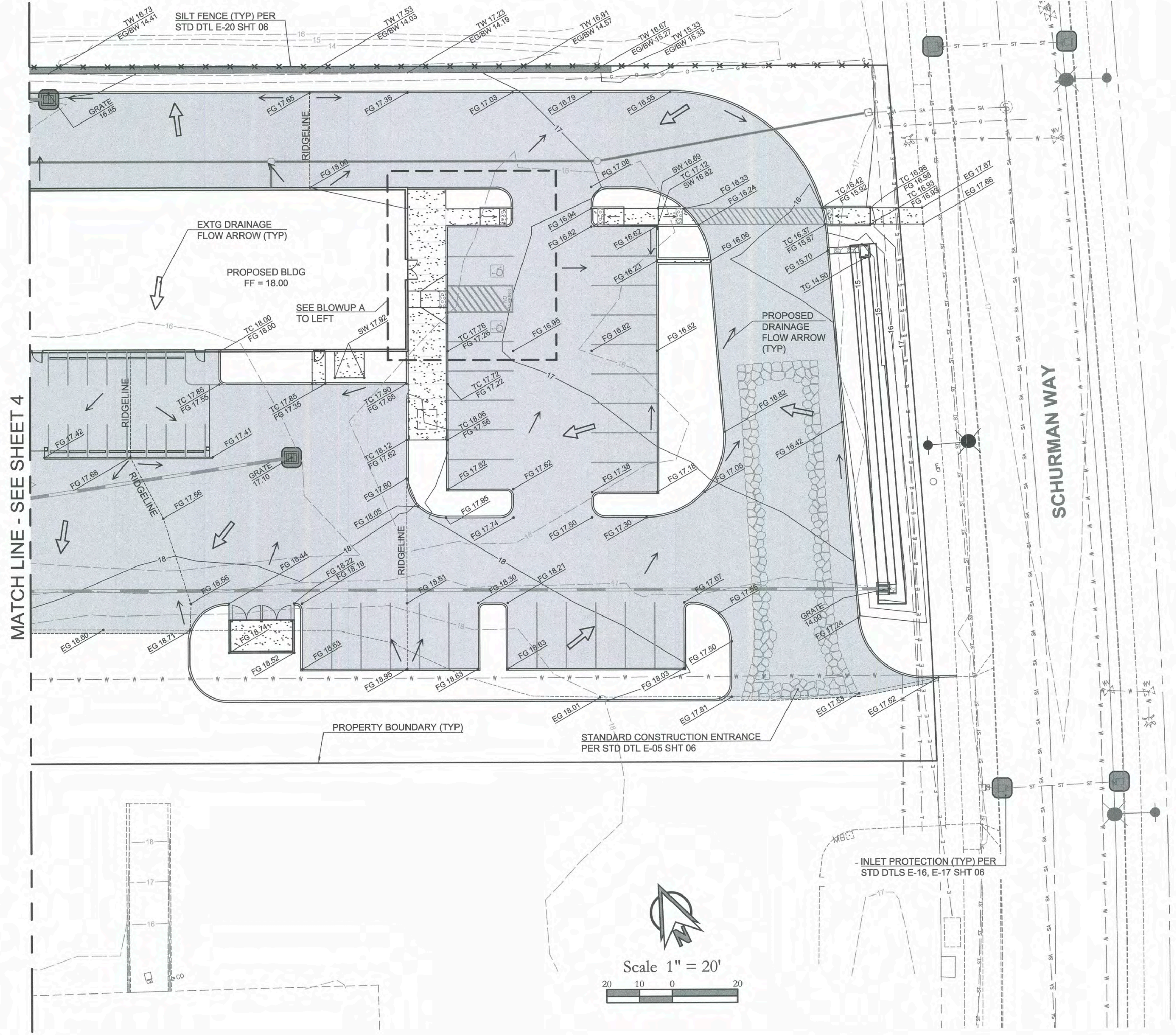
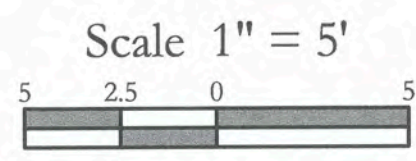
1	
2	
3	
4	
5	
6	



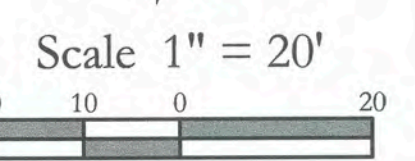
Project No. 3405
 SCALE: H: 1" = 20'
 V: N/A
 DESIGNED BY: TJL
 DRAFTED BY: TJL
 REVIEWED BY: AJG



BLOWUP A



MATCH LINE - SEE SHEET 4



Proposed Hatching Legend

	Asphalt Paving
	Gravel Surfacing
	Retaining Wall
	Concrete Sidewalk/Paving

GRADING SPOT ELEVATION ABBREVIATIONS
 TC = TOP OF CURB OR TOP OF CONCRETE ELEVATION
 FG = FINISH GRADE AT TOP OF PAVT OR EXTERNAL TO BLDG
 SW = FINISH GRADE FOR SIDEWALK
 EG = EXTG GRADE AT EDGE OF PAVT (FOR REFERENCE)
 GRATE = CATCH BASIN OR INLET RIM ELEVATION
 TW = FINISHED GRADE AT TOP OF WALL
 BW = FINISHED GRADE AT BOTTOM OF WALL

- GRADING NOTES:**
- ALL TOP OF CURB ELEVATIONS ARE 0.5' ABOVE PAVEMENT FINISH GRADE (FG) ELEVATION SHOWN UNLESS OTHERWISE INDICATED.
 - SIDEWALK CROSS-SLOPES SHALL NORMALLY BE 2% TOWARD ADJACENT PAVEMENT (AWAY FROM THE BUILDING) UNLESS OTHERWISE INDICATED ON THIS PLAN BY SPOT GRADES.
 - EXCEPT WHERE OTHERWISE NOTED BY FG ELEVATIONS, FINISH GRADE EXTERNAL TO THE BUILDING IS EQUAL TO BLDG FINISH FLOOR.

Revisions

1	2	3	4	5	6
---	---	---	---	---	---



Project No. 3405

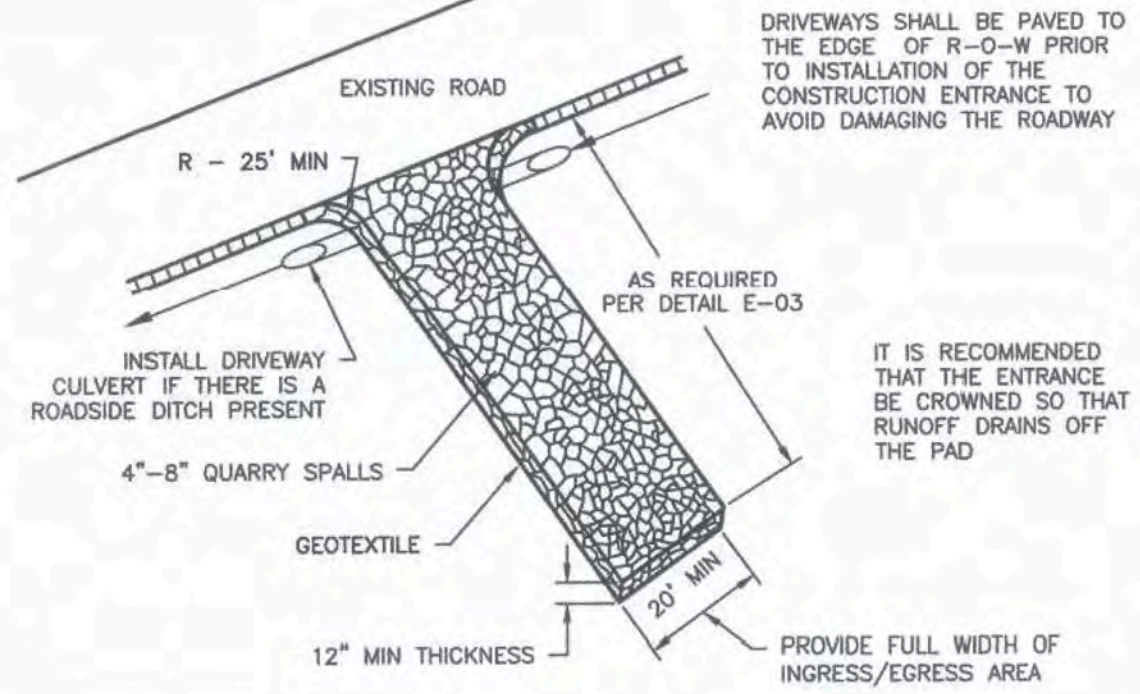
SCALE: H: 1" = 20'
V: N/A

DESIGNED BY:	TJL
DRAFTED BY:	TJL
REVIEWED BY:	AJG

GENERAL EROSION PREVENTION & SEDIMENT CONTROL NOTES

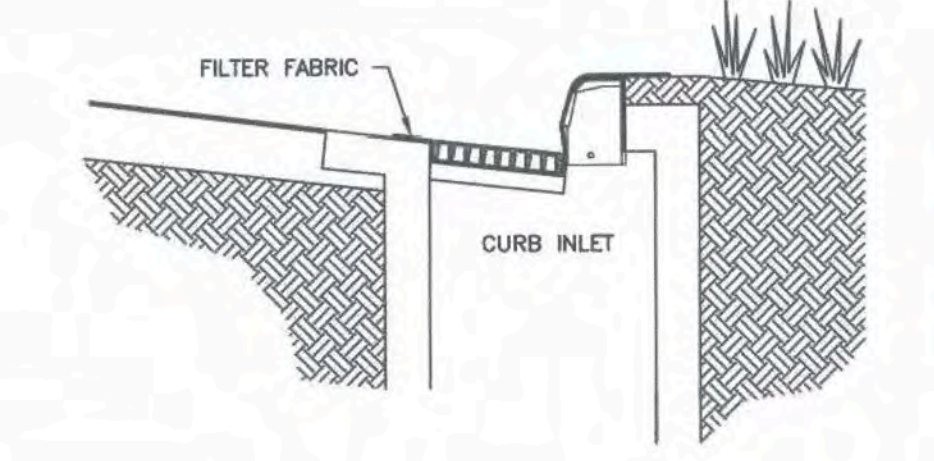
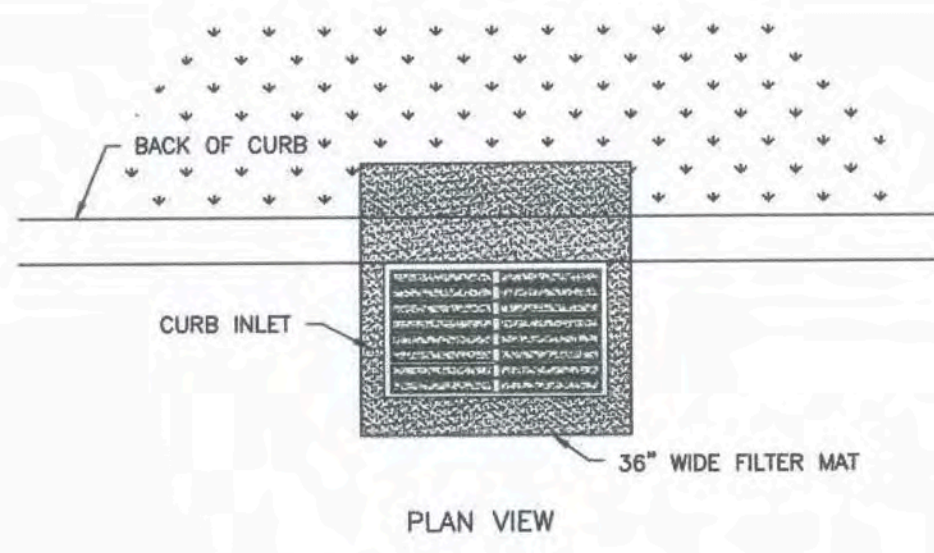
- ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IN PLACE AND IN WORKING CONDITION PRIOR TO ANY LAND DISTURBING ACTIVITY CAUSED BY CLEARING OR GRADING. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE APPROVED BY THE CITY EROSION CONTROL SPECIALIST PRIOR TO THE COMMENCEMENT OF WORK. THE CONTRACTOR 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 LATEST STANDARD DETAILS AND THE WASHINGTON STATE DEPARTMENT OF ECOLOGY STORMWATER 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 ASSOCIATED WITH UTILITY TRENCHES.
- PRIOR TO ANY SITE EXCAVATION, ALL STORM DRAINAGE INLETS SHALL BE PROTECTED DOWN SLOPE FROM ANY DISTURBED OR CONSTRUCTION AREAS PER THE STANDARD DETAILS TO PREVENT SEDIMENT FROM ENTERING THE STORM DRAINAGE SYSTEM PRIOR TO PERMANENT STABILIZATION OF THE DISTURBED AREAS. CLEAN THE FILTER FABRIC AS NECESSARY TO MAINTAIN DRAINAGE. REMOVE FILTER AND CLEAN CATCH BASINS FOLLOWING COMPLETION OF SITEMARK.
- THE CONTRACTOR SHALL NOT ALLOW SEDIMENT OR DEBRIS TO ENTER NEW OR EXISTING PIPES, CATCH BASINS OR INFILTRATION SYSTEMS.
- NEWLY CONSTRUCTED OR MODIFIED INLETS AND CATCH BASINS ARE TO BE PROTECTED IMMEDIATELY UPON INSTALLATION.
- TEMPORARY SEEDING AND MULCHING OF FILL SLOPES AND DIVERSION Dikes SHALL BE COMPLETED WITHIN ONE WEEK AFTER ROUGH GRADING.
- ALL EXPOSED AND UNWORKED SOILS SHALL BE STABILIZED BY THE APPROPRIATE BEST MANAGEMENT PRACTICES (BMPs), DURING THE PERIOD FROM OCTOBER 1 TO APRIL 30 NO SOIL SHALL BE EXPOSED FOR MORE THAN TWO (2) DAYS. FROM MAY 1 TO SEPTEMBER 30 NO SOIL SHALL BE EXPOSED FOR MORE THAN SEVEN (7) DAYS.
- MATERIAL STOCKPILES ARE TO BE PROTECTED BY THE FOLLOWING MEANS:
 TEMPORARY: COVER PILES WITH TARP OR PLASTIC SHEETING WEIGHTED WITH CONCRETE BLOCKS, LUMBER OR TIRES.
 PERMANENT: COVER PILES WITH TARP OR PLASTIC, OR RESEED. PERIMETER AREAS AROUND PILES ARE TO BE SURROUNDED WITH EROSION CONTROL FILTER FABRIC FENCES UNTIL SOIL SURFACE IS STABILIZED WITH RESEEDING.
- THE CONTRACTOR SHALL MAINTAIN ON SITE A WRITTEN DAILY LOG OF EROSION CONTROL BMP MAINTENANCE.
- IF THE CITY INSPECTOR OR ENGINEER(S) HAS EVIDENCE OF POOR CONSTRUCTION PRACTICES OR IMPROPER EROSION PREVENTION BMPs, CITATIONS AND/OR A STOP WORK ORDER SHALL BE ISSUED UNTIL PROPER MEASURES HAVE BEEN TAKEN AND APPROVED BY THE CITY OF WOODLAND. IF THE BMPs APPLIED TO A SITE ARE INSUFFICIENT TO PREVENT SEDIMENT FROM REACHING WATER BODIES, ADJACENT PROPERTIES, OR PUBLIC RIGHT-OF-WAY, THEN THE PUBLIC WORKS DIRECTOR SHALL REQUIRE ADDITIONAL BMPs.
- PROTECTION OF ADJACENT PROPERTIES, ROADS AND STREETS
 PROVIDE A 12-INCH DEEP PAD OF CRUSHED ROCK FOR A DISTANCE OF 100 FEET INTO THE SITE FOR ALL ACCESS POINTS UTILIZED BY CONSTRUCTION EQUIPMENT AND TRUCKS. WIDTH OF THE PAD SHALL BE A MINIMUM OF 20 FEET. ALL TRUCKS LEAVING THE SITE SHALL CROSS THE PAD. ACCUMULATED SOIL SHALL BE PERIODICALLY REMOVED, OR ADDITIONAL ROCK SHALL BE PLACED UPON THE PAD SURFACE. ROCK SHALL BE CLEAN 4 INCH 8 INCH QUARRY SPALLS. ALL MATERIALS SPILLED, DROPPED, WASHED OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY.
- PAVEMENT SHEEPING AND SHOVELING IS REQUIRED. WASHING THE PAVEMENT INTO THE STORM SYSTEM IS NOT PERMITTED.
- AT SITES WITH LESS THAN 1 ACRE OF EXPOSED SOIL, PAD LENGTH MAY BE REDUCED TO 50 FEET. SINGLE FAMILY LOT ENTRANCES MAY HAVE THE PAD LENGTH REDUCED TO 20 FEET. IF CONSTRUCTION OCCURS SIMULTANEOUSLY ON ADJACENT LOTS WITH THE SAME OWNER DURING CONSTRUCTION, ONE LOT ENTRANCE MAY BE USED FOR THE ADJACENT LOTS.
- INSTALL SEDIMENT FENCE IN ACCORDANCE WITH THIS DETAIL SHEET PRIOR TO BUILDING CONSTRUCTION AND/OR EXCAVATION TO PREVENT SILT INTRUSION UPON 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 ELIMINATED.
- CONSTRUCTION ROADS AND PARKING AREAS SHALL BE STABILIZED WHEREVER THEY ARE CONSTRUCTED, WHETHER PERMANENT OR TEMPORARY, FOR THE USE OF CONSTRUCTION TRAFFIC.
- MAINTENANCE OF SEDIMENT CONTROL BMPs
 MAINTAIN AND REMOVE ALL SEDIMENT CONTROLS AS SPECIFIED IN THE STANDARD DETAILS. THE CONTRACTOR SHALL REMOVE ALL ACCUMULATED SEDIMENT FROM THE CATCH BASINS, DRYWELLS, UTILITY TRENCHES AND STORM PIPES PRIOR TO ACCEPTANCE BY THE CITY.
- SEDIMENT CONTROL BMPs SHALL BE INSPECTED WEEKLY AND AFTER ANY STORM EVENT PRODUCING RUNOFF. THE INSPECTION FREQUENCY FOR STABILIZED, INACTIVE SITES SHALL BE ONCE EVERY TWO WEEKS OR MORE FREQUENTLY AS DETERMINED BY THE LOCAL PERMITTING AUTHORITY BASED ON THE LEVEL OF SOIL STABILITY AND POTENTIAL FOR ADVERSE ENVIRONMENTAL IMPACTS.
- ALL TEMPORARY EROSION PREVENTION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER SITE STABILIZATION IS ACHIEVED OR AFTER TEMPORARY BMPs ARE NO LONGER NEEDED. TRAPPED SEDIMENT SHALL BE REMOVED OR STABILIZED ON SITE. DISTURBED SOIL AREAS RESULTING FROM REMOVAL 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. MINIMIZE THE PERIOD OF SOIL EXPOSURE THROUGH THE USE OF TEMPORARY GROUND COVER AND OTHER TEMPORARY STABILIZATION PRACTICES.
 B. SPRINKLE THE SITE WITH WATER UNTIL THE SURFACE IS WET.
 C. SPRAY EXPOSED SOIL AREAS WITH A DUST PALLIATIVE. NOTE: USE OF PETROLEUM PRODUCTS OR POTENTIALLY HAZARDOUS MATERIALS ARE PROHIBITED.
- TEMPORARY SEEDING
 EXPOSED SURFACES THAT WILL NOT BE BROUGHT TO FINAL GRADE OR GIVEN A PERMANENT COVER TREATMENT WITHIN 30 DAYS OF THE EXPOSURE SHALL HAVE SEED MIX AND MULCH PLACED TO STABILIZE THE SOIL AND REDUCE EROSION SEDIMENTATION. SEEDING AREAS SHALL BE CHECKED REGULARLY TO ASSURE A GOOD STAND OF GRASS IS BEING MAINTAINED. AREAS THAT FAIL TO ESTABLISH VEGETATION COVER ADEQUATE TO PREVENT EROSION WILL BE RESEED AS SOON AS SUCH AREAS ARE IDENTIFIED.
- APPLY AN APPROVED TEMPORARY SEEDING MIXTURE TO THE PREPARED SEED BED AT A RATE OF 120 LBS/ACRE. NOTE: "HYDROSEEDING" APPLICATIONS WITH APPROVED SEED-MULCH-FERTILIZER MIXTURES MAY ALSO BE USED.

EROSION PREVENTION AND SEDIMENT CONTROL						E-03
APPROVED	REVISIONS	DATE	DRAWN	DESIGNED		
PUBLIC WORKS DIRECTOR	DATE					



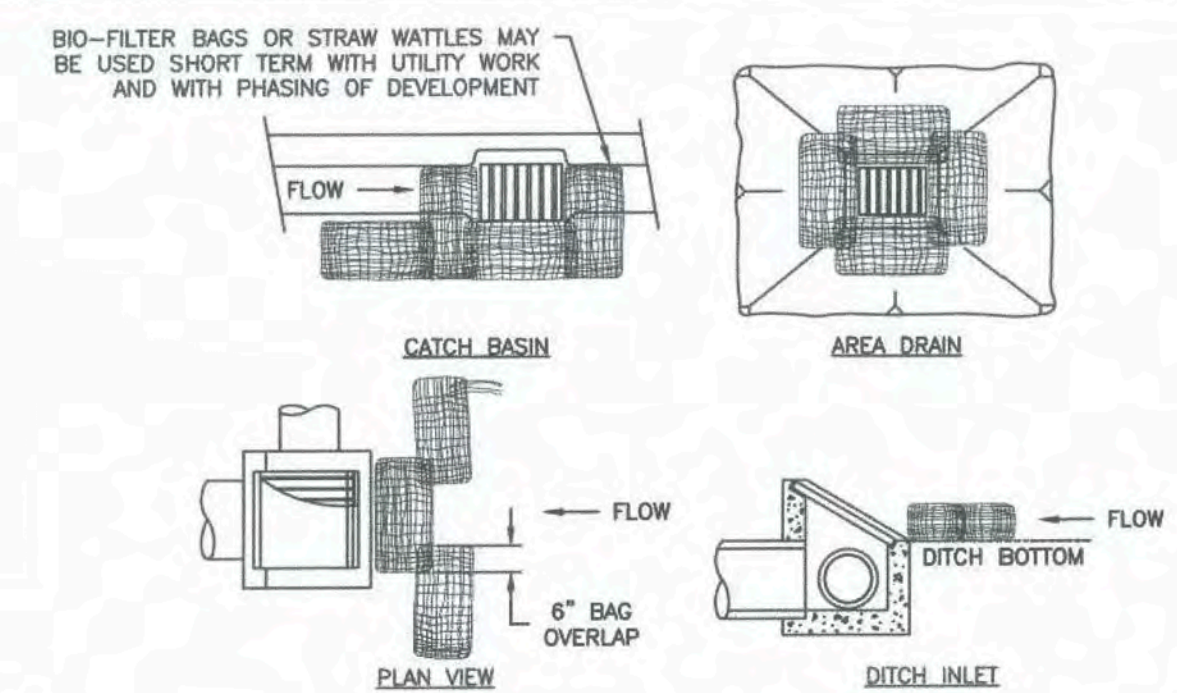
- NOTES:
- IF THE ENTRANCE SITS ON A SLOPE, PLACE A FILTER FABRIC FENCE DOWN GRADIENT.
 - TOP DRESS THE PAD WITH CLEAN 3" MINUS ROCK WHEN THE CONSTRUCTION ENTRANCE BECOMES CLOGGED WITH SEDIMENTS.
 - ANY SEDIMENT CARRIED FROM THE SITE ONTO THE STREET SHALL BE CLEANED UP IMMEDIATELY.
 - IF EQUIPMENT TRAVELS EXTENSIVELY ON UNSTABILIZED ROADS ON THE SITE, A TIRE AND VEHICLE UNDERCARRIAGE WASH NEAR THE ENTRANCE WILL BE NEEDED. PERFORM WASHING ON CRUSHED ROCK. WASH WATER WILL REQUIRE TREATMENT IN A SEDIMENT POND OR TRAP.

STABILIZED CONSTRUCTION ENTRANCE						E-05
APPROVED	REVISIONS	DATE	DRAWN	DESIGNED		
PUBLIC WORKS DIRECTOR	DATE					

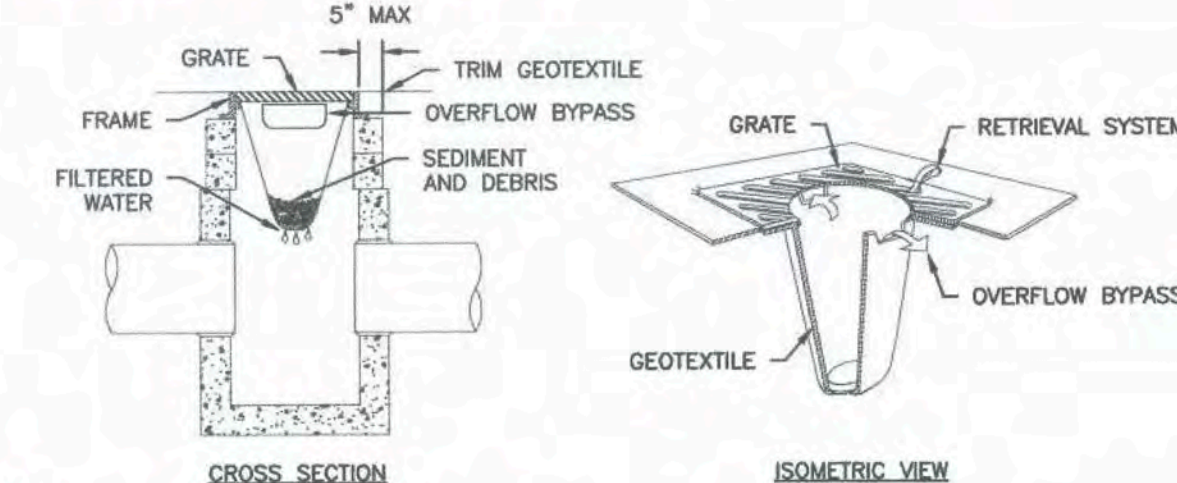


- NOTES:
- USE FILTER MAT SEDIMENT BARRIER WHEN CURB INLET IS LOCATED IN GENTLY SLOPING STREET, WITH MINIMAL NEED, WHERE WATER CAN FILTER AND ALLOW SEDIMENT TO SEPARATE FROM RUNOFF.
 - BARRIER SHALL ALLOW FOR OVERFLOW FROM SEVERE STORM EVENT.
 - INSPECT BARRIERS AND REMOVE SEDIMENT AFTER EACH STORM EVENT. SEDIMENT MUST BE REMOVED FROM THE TRAVELED WAY IMMEDIATELY.

INLET PROTECTION (2 OF 2)						E-17
APPROVED	REVISIONS	DATE	DRAWN	DESIGNED		
PUBLIC WORKS DIRECTOR	DATE					

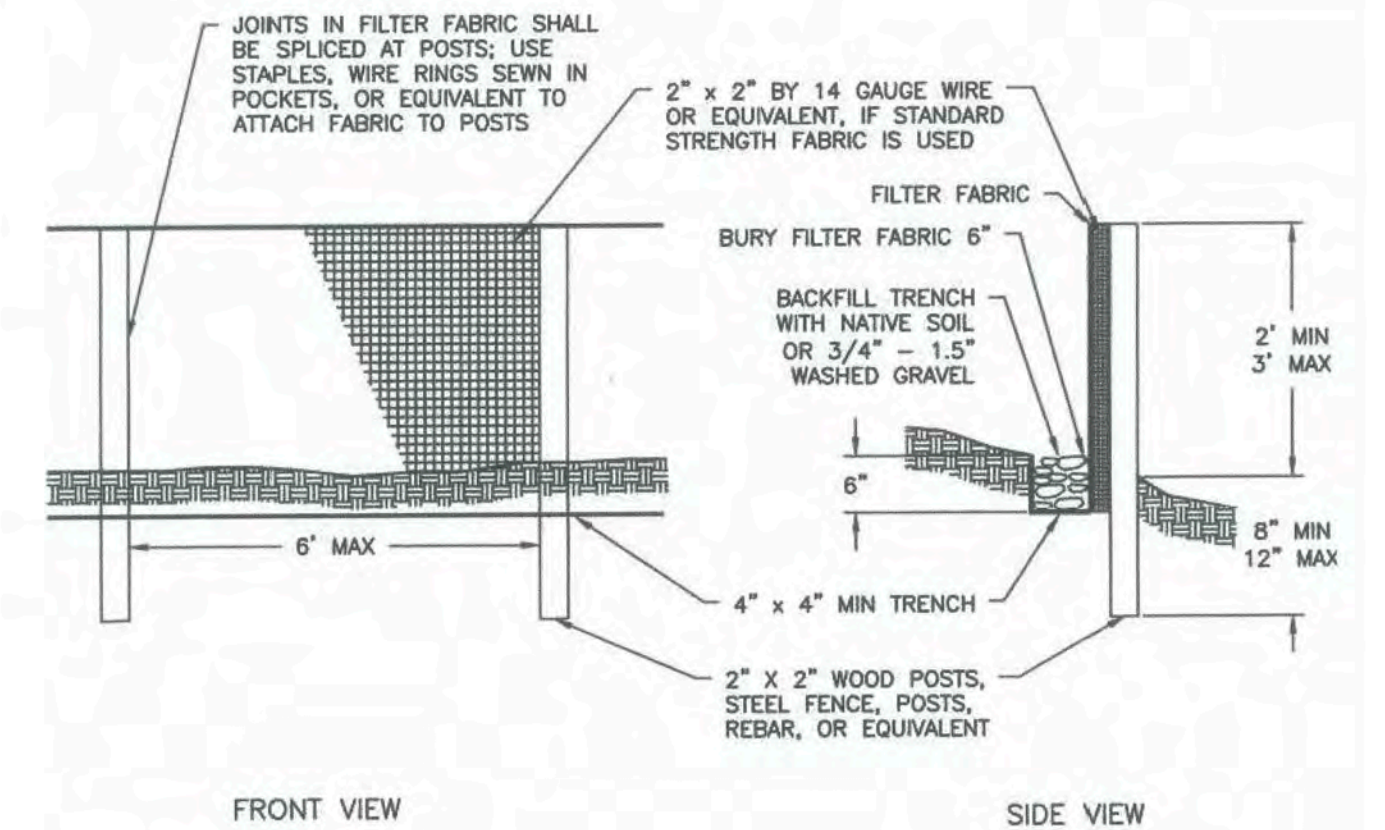


- NOTES:
- ADDITIONAL MEASURES MUST BE CONSIDERED DEPENDING ON SOIL TYPE.
 - BIO-FILTER BAGS SHOULD BE STAKED WHERE APPLICABLE USING (2) 1" x 2" WOODEN STAKES OR APPROVED EQUAL PER BAG.
 - STRAW WATTLES MUST BE STABILIZED BY ATTACHING WIRE CLIPS TO THE CATCH BASIN PER MANUFACTURER SPECIFICATIONS.
 - INLET PROTECTION MUST BE REGULARLY INSPECTED BY THE EROSION CONTROL INDIVIDUAL TO INSURE PROPER PLACEMENT/FUNCTION AND MAINTENANCE.



- NOTES:
- SIZE THE BELOW GRATE INLET DEVICE (BGID) FOR THE STORM WATER STRUCTURE IT WILL SERVICE.
 - THE REMOVAL SYSTEM MUST ALLOW REMOVAL OF THE BGID WITHOUT SPILLING THE COLLECTED MATERIAL.
 - THE BGID SHALL HAVE A BUILT-IN HIGH-FLOW RELIEF SYSTEM (OVERFLOW BYPASS).
 - THE CONTRACTOR SHALL INSPECT THE BAG AFTER EACH STORM EVENT AND AT REGULAR INTERVALS.
 - THE FILTER BAG SHALL BE CLEANED OR REPLACED WHEN THE BAG BECOMES HALF FULL.

INLET PROTECTION (1 OF 2)						E-16
APPROVED	REVISIONS	DATE	DRAWN	DESIGNED		
PUBLIC WORKS DIRECTOR	DATE					



- NOTES:
- FILTER FABRIC FENCES SHALL BE INSTALLED ALONG CONTOUR WHENEVER POSSIBLE.
 - POST SPACING MAY BE INCREASED TO 8' IF WIRE BACKING IS USED.

- MAINTENANCE STANDARDS:
- SILT FENCES AND FILTER BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.
 - IF CONCENTRATED FLOWS ARE EVIDENT UPHILL OF THE FENCE, THEY MUST BE INTERCEPTED AND CONVEYED TO A SEDIMENT POND.
 - IT IS IMPORTANT TO CHECK THE UPHILL SIDE OF THE FENCE FOR SIGNS OF THE FENCE CLOGGING AND ACTING AS A BARRIER TO FLOW AND THEN CAUSING CHANNELIZATION OF FLOWS PARALLEL TO THE FENCE. IF THIS OCCURS, REPLACE THE FENCE OR REMOVE THE TRAPPED SEDIMENT.
 - SEDIMENT DEPOSITS SHALL EITHER BE REMOVED WHEN THE DEPOSIT REACHES APPROXIMATELY ONE-THIRD THE HEIGHT OF THE SILT FENCE, OR A SECOND SILT FENCE SHALL BE INSTALLED.
 - IF THE FILTER FABRIC (GEOTEXTILE) HAS DETERIORATED DUE TO ULTRAVIOLET BREAKDOWN, IT SHALL BE REPLACED.

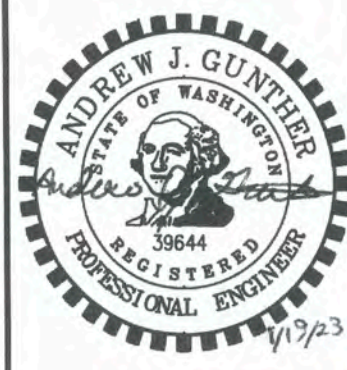
SILT FENCE						E-20
APPROVED	REVISIONS	DATE	DRAWN	DESIGNED		
PUBLIC WORKS DIRECTOR	DATE					

Erosion Control Details For:

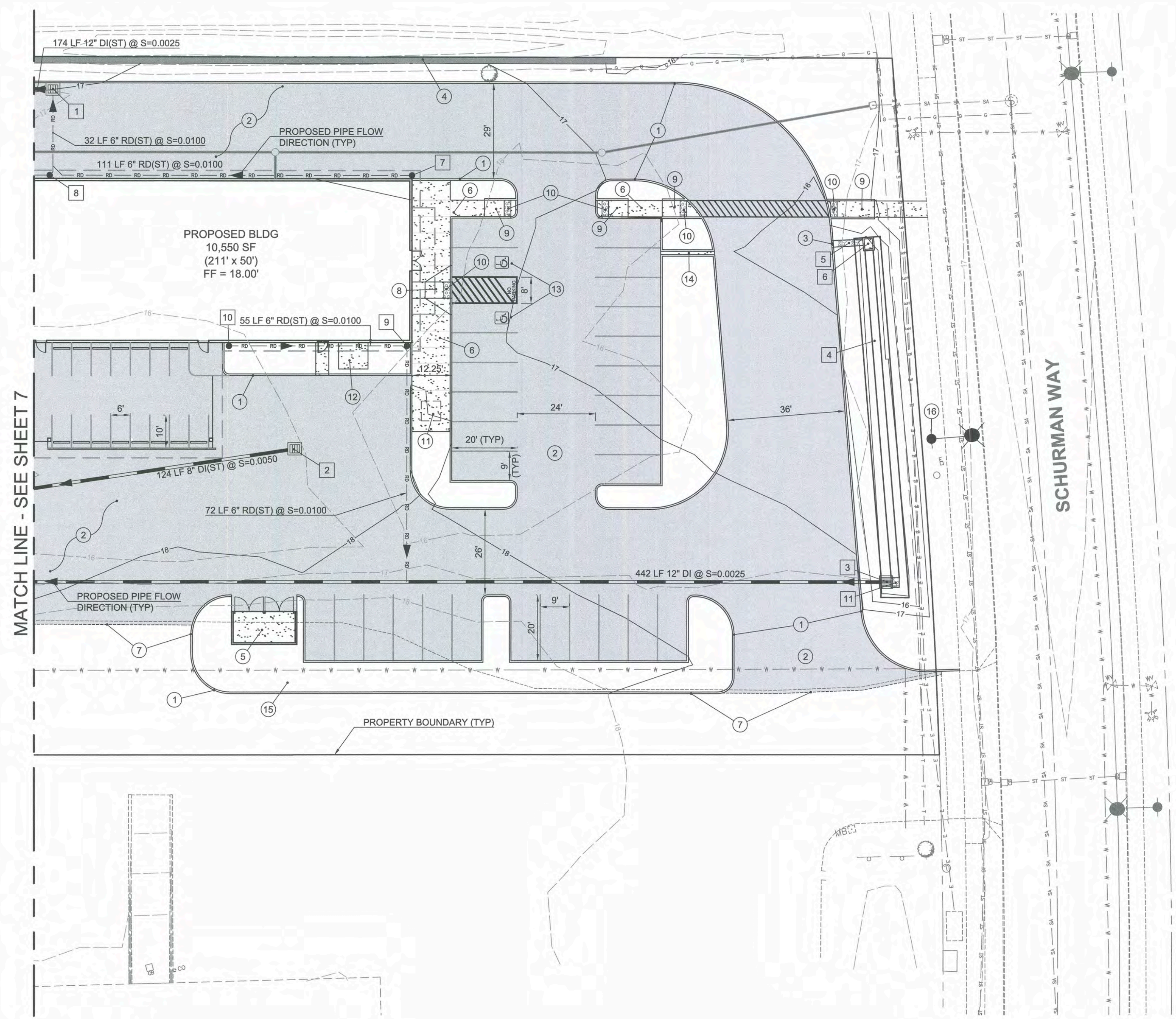
Dawkins Warehouse

A Site Located in the City of Woodland, Washington

Revisions	1	2	3	4	5	6



Project No. 3405
 SCALE: H: N/A
 V: N/A
 DESIGNED BY: TJL
 DRAFTED BY: TJL
 REVIEWED BY: AJG



STORM CONSTRUCTION NOTES:
 ALL ON-SITE STORMWATER FACILITIES ARE TO BE PRIVATELY OWNED AND MAINTAINED.

*BIOFILTRATION SWALE DIMENSIONS ARE MEASURED AT THE BOTTOM OF FACILITY.

- 1 INSTALL STORM CB-2 PER DTL SHT 10
(x=5348.99, y=4898.92)
RIM 16.85'
6" IE IN (S) 14.85'
12" IE OUT (W) 14.85'
- 2 INSTALL STORM CB-5 PER DTL SHT 10
(x=5393.20, y=4774.38)
RIM 17.10'
8" IE OUT (W) 15.37'
- 3 INSTALL DITCH INLET 2 PER DTL SHT 10
(x=5559.80, y=4688.98)
RIM 14.00'
12" IE OUT (W) 13.91'
- 4 EAST WET BIOFILTRATION SWALE
2.5' BASE x 100' LONG, S=0.0050
START EL. 14.50' END EL. 14.00'
SEE EAST BIOFILTRATION SWALE
TYPICAL SECTION & PLANTING/SEEDING
INFO THIS SHT
- 5 INSTALL 2' WIDE x 9' LONG x 1' DEEP
QUARRY SPALLS PAD
- 6 BIOSWALE SEDIMENT TRAP
PER DTL SHT 10
- 7 STORM DS-2
6" IE 16.25'
- 8 STORM DS-3
6" IE 15.17'
- 9 STORM DS-6
6" IE 14.60'
- 10 STORM DS-7
6" IE 15.15'
- 11 INSTALL 2.5' WIDE x 3' LONG x 1' DEEP
QUARRY SPALLS PAD

GENERAL CONSTRUCTION NOTES:

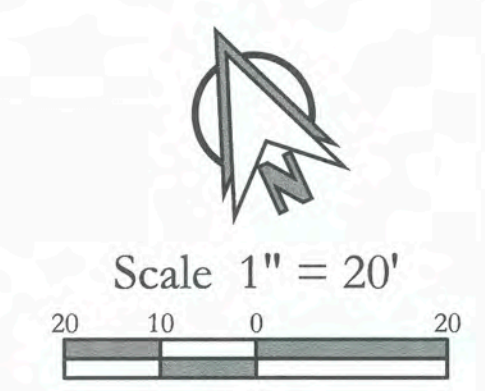
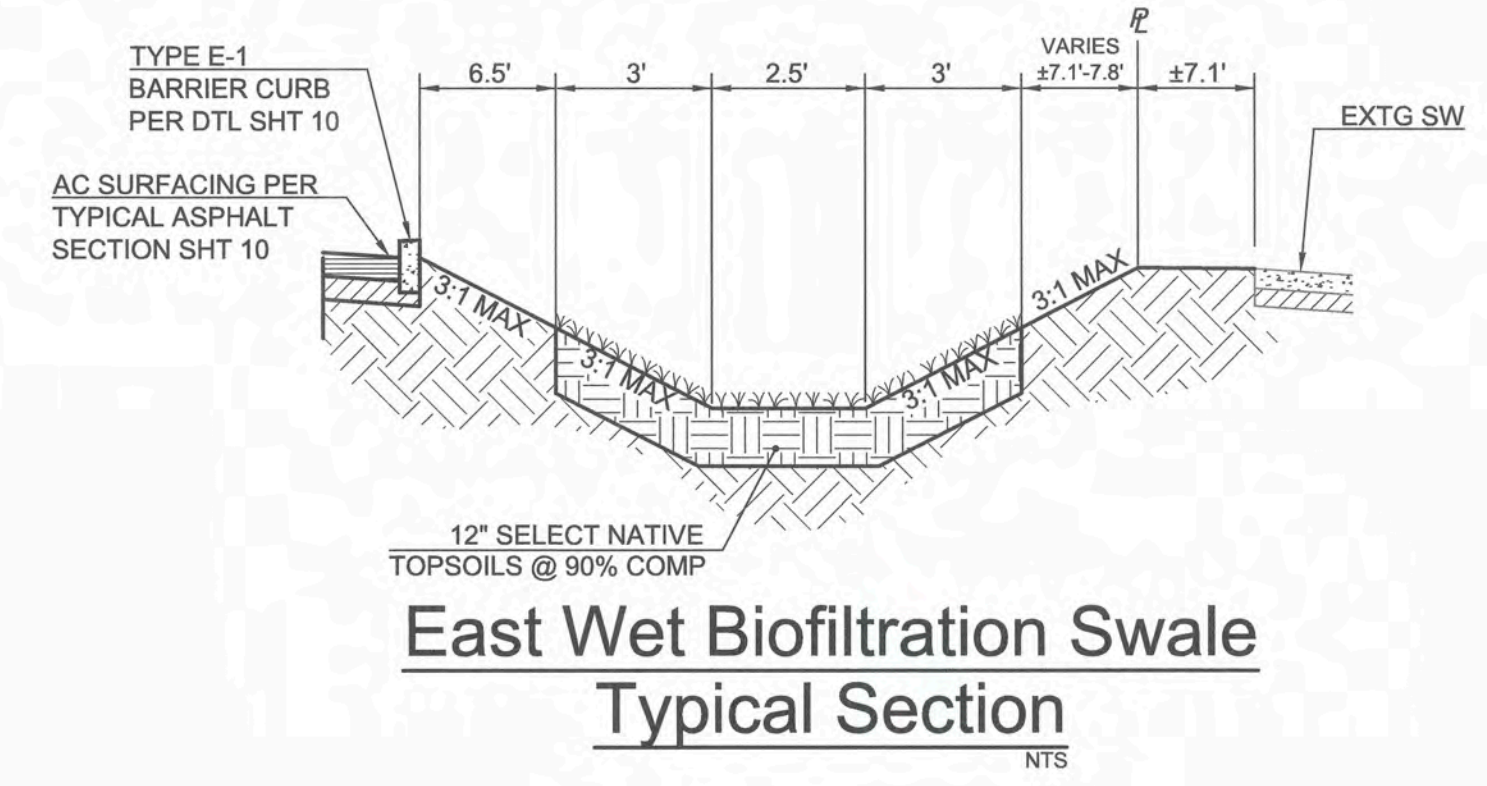
- 1 INSTALL TYPE E-1 BARRIER CURB PER DTL SHT 10
- 2 INSTALL NEW ASPHALT PAVEMENT
PER TYPICAL SECTION SHT 10
- 3 INSTALL CURB CUT PER DTL SHT 10
- 4 RETAINING WALL DESIGN BY OTHERS
SEE SHTS 04 & 05 FOR DETAILED GRADING
- 5 TRASH ENCLOSURE DESIGN BY OTHERS
- 6 TYPICAL ON-SITE SIDEWALK PER DTL SHT 11
- 7 SAWCUT A MINIMUM OF 1" INTO EXTG PAVEMENT
REMOVE EXTG PAVEMENT UNDER PROPOSED CURB
- 8 INSTALL SIDEWALK RAMP TYPE 1 PER DTL 11
DETAILED GRADING ON SHT 05
- 9 INSTALL SIDEWALK RAMP TYPE 2 PER DTL 11
DETAILED GRADING ON SHT 05
- 10 TRUNCATED DOMES/DETECTABLE WARNING PATTERN
PER CITY OF WOODLAND STD DTL T-21 SHT 12
- 11 TRANSFORMER PAD
SEE ELECTRICAL DRAWINGS
- 12 MECHANICAL EQUIPMENT PAD
SEE MECHANICAL DRAWINGS
- 13 INSTALL ADA PARKING & HANDICAP SIGNS PER DTL SHT 11
PAVEMENT CROSS SECTION PER DTL SHT 10
- 14 CURB SCUPPER PER DTL SHT 11
- 15 REMOVE EXTG PAVEMENT NORTH AND EAST OF NEW CURB LINE
- 16 INSTALL NEW STREET LIGHT WITH BASE, POLE, AND LUMINAIRE
PER WOODLAND CURRENT STANDARDS. SEE ELECTRICAL
PLANS FOR SPECIFICATIONS, POWER SOURCING, CONDUIT
REQUIREMENTS, ETC.

STORMWATER FACILITY SEED MIX:
 SUNMARK NATIVE SWALE MIX:
 (OR APPROVED EQUAL)
 50% BLUE WILDRIE
 15% NATIVE RED FESCUE
 10% MEADOW BARLEY
 10% NORTHWESTERN MANNAGRASS
 10% AMERICAN SLOUGHGRASS
 5% TUFTED HAIRGRASS
 APPLICATION RATE 1 LB/1,000 SQ FT

NOTES:

- 1. IF FACILITY IS INSTALLED DURING A PERIOD OF WET WEATHER, IT CAN BE ESTABLISHED BY SODDING. SINCE SOD IS NOT AVAILABLE IN RECOMMENDED GRASSES IT SHOULD BE OVER SOWN WITH A RECOMMENDED MIX AT THE BEGINNING OF THE GROWING SEASON. IT IS RECOMMENDED TO INSTALL A SOD THAT IS A MIX OF CREEPING FESCUE AND HARD & SHEEP FESCUES.
- 2. SOD SHALL BE LAID PERPENDICULAR TO SLOPE FROM BOTTOM TO TOP, WITH JOINTS STAGGERED.
- 3. SWALE SHALL HAVE A VIABLE STAND OF GRASS APPROVED BY THE CITY INSPECTOR PRIOR TO PAVING.

STORMWATER FACILITY PLANTING/SEEDING

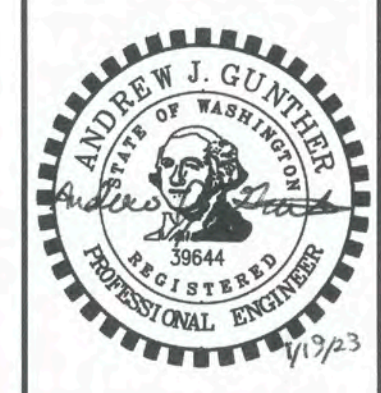


Proposed Hatching Legend

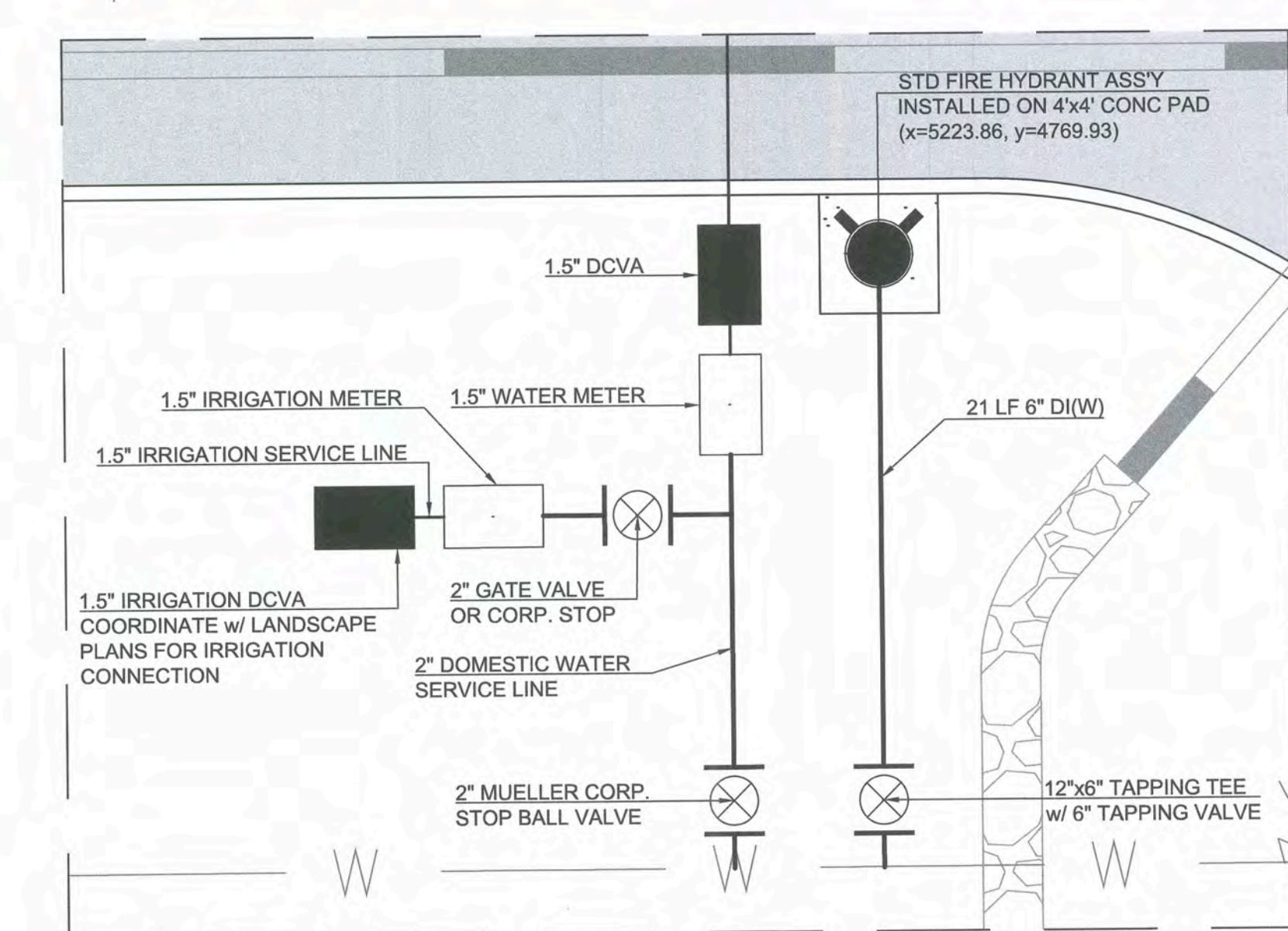
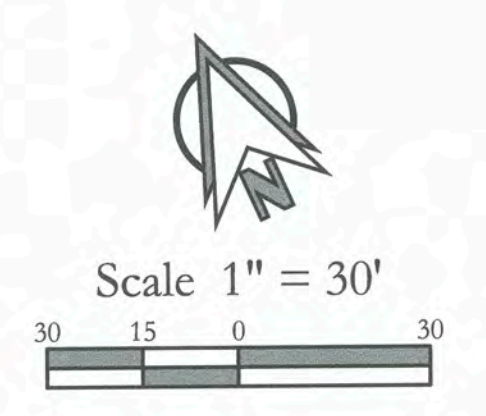
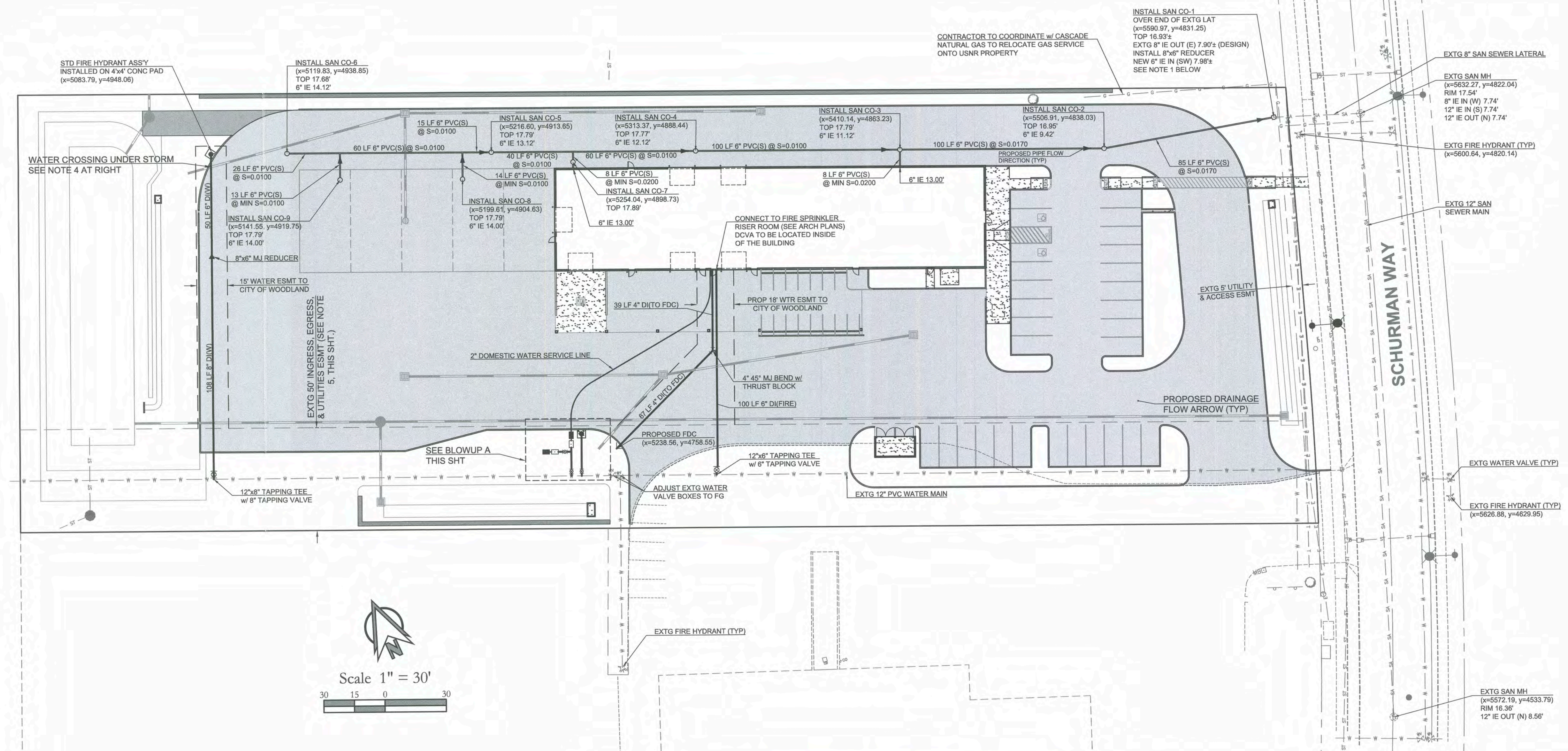
	Asphalt Paving
	Gravel Surfacing
	Retaining Wall
	Concrete Sidewalk/Paving

Revisions

No.	Description
1	
2	
3	
4	
5	
6	



Project No. 3405
 SCALE: H: N/A
 V: 1" = 20'
 DESIGNED BY: TJL
 DRAFTED BY: TJL
 REVIEWED BY: AJG



BLOWUP A
1"=5'

- NOTES:
- DESIGN ELEVATION LISTED FOR THE END OF THE EXISTING 8" SAN SEWER LATERAL IS BASED ON THE AS-BUILT INVERT ELEVATION AT THE EXISTING SANITARY MANHOLE AND AN ASSUMED LATERAL SLOPE OF 0.0040 AS INDICATED ON THE ORIGINAL CONSTRUCTION DRAWINGS WHICH RESULTED IN THE LATERAL INSTALLATION. THE CONTRACTOR SHALL EXPOSE AND MEASURE THE INVERT ELEVATION OF THE END OF THE SEWER LATERAL PRIOR TO CONSTRUCTION AND NOTIFY THE ENGINEER OF ANY DISCREPANCY BETWEEN DESIGN AND ACTUAL INVERT ELEVATIONS SO THAT ANY REQUIRED DESIGN MODIFICATIONS CAN BE MADE PRIOR TO CONSTRUCTION.
 - ALL CITY OF WOODLAND STANDARD WATER DETAILS CAN BE FOUND ON SHTS 13 & 14.
 - ALL CITY OF WOODLAND STANDARD SANITARY SEWER DETAILS CAN BE FOUND ON SHT 15.
 - MINIMUM 18" VERTICAL SEPARATION REQUIRED BETWEEN BOTTOM OF STORM LINE AND TOP OF WATER MAIN AT CROSSING. DEEPEN WATER TO PROVIDE REQUIRED SEPARATION.
 - ANY STRUCTURE OR PLANTING THAT HAS TO BE REMOVED IN THE CASE OF CITY REPAIR TO THE EXISTING WATER LINE WILL NOT BE THE CITY'S RESPONSIBILITY TO REPAIR/REPLACE.

Sanitary Sewer & Water Plan For:

Dawkins Warehouse

A Site Located in the City of Woodland, Washington
Engineering - Surveying - Planning | 604 W. Evergreen Blvd., Vancouver, WA 98660 | PH (360) 944-6519 | Fax (360) 944-6539

PLS ENGINEERING

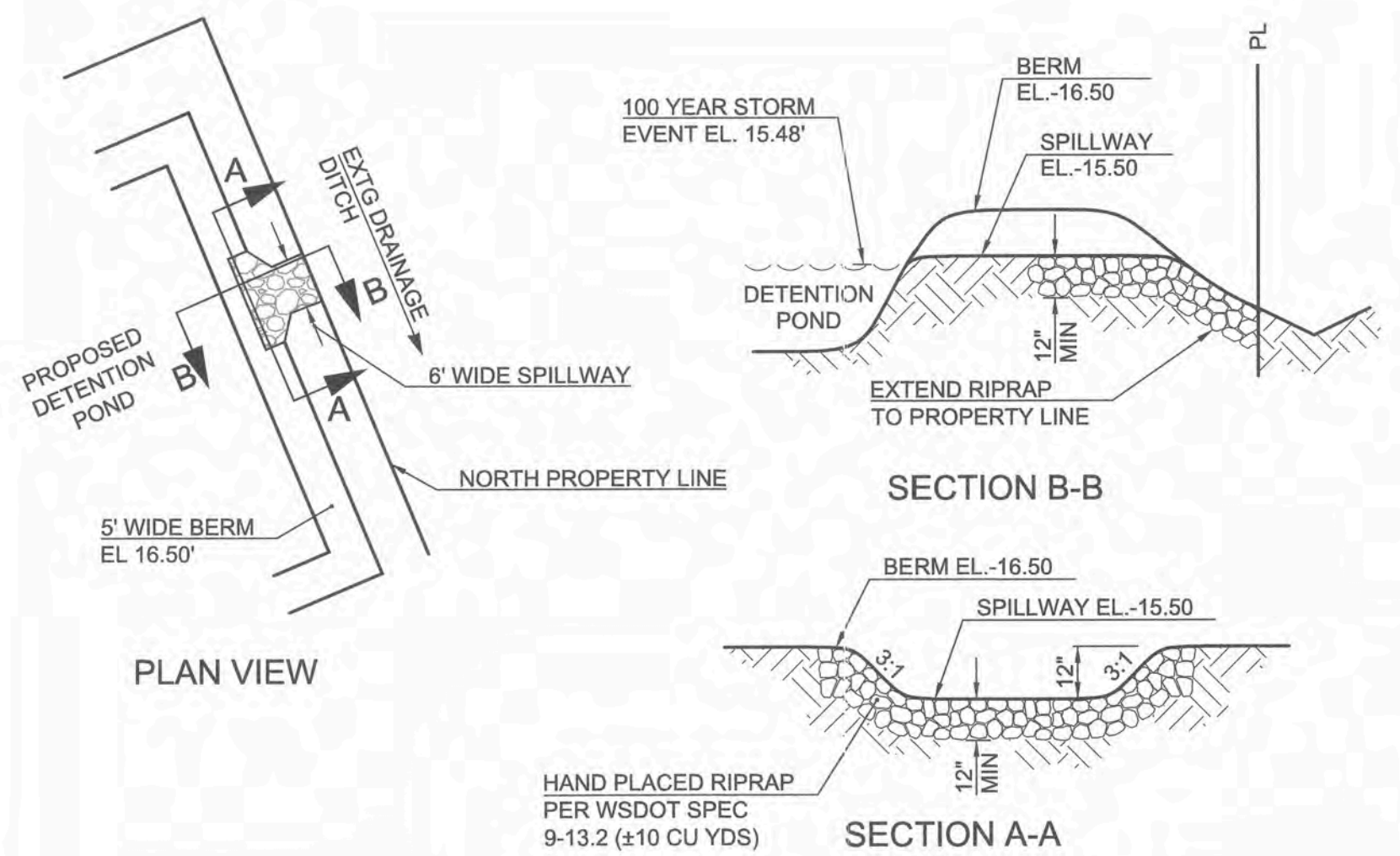
Revisions	1	2	3	4	5	6

Project No. 3405
SCALE: H: 1" = 30'
V: N/A

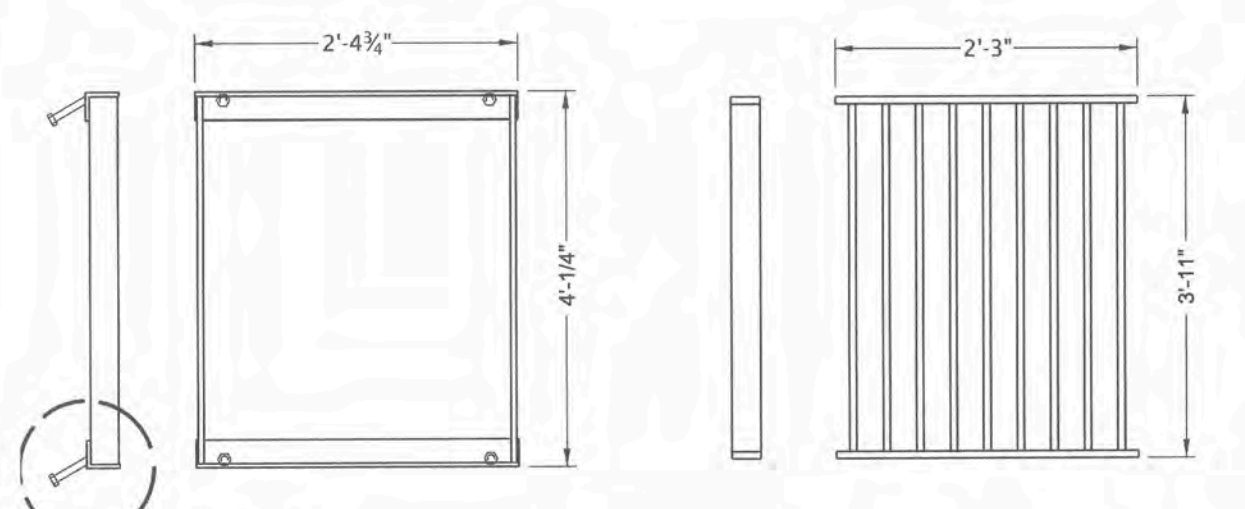
DESIGNED BY: TJL
DRAFTED BY: TJL
REVIEWED BY: AJG

09

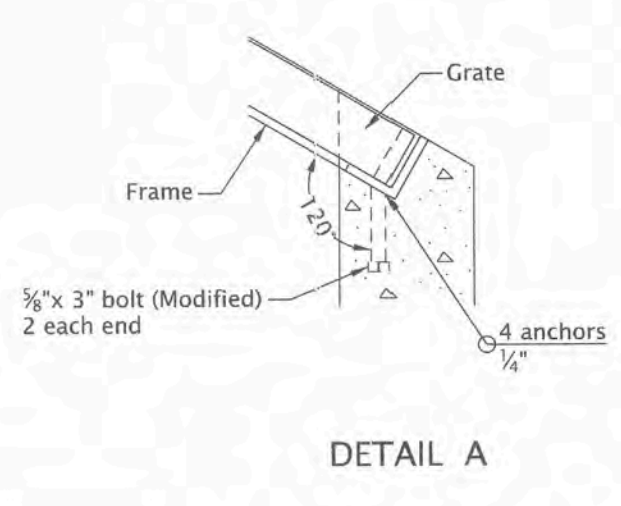
15



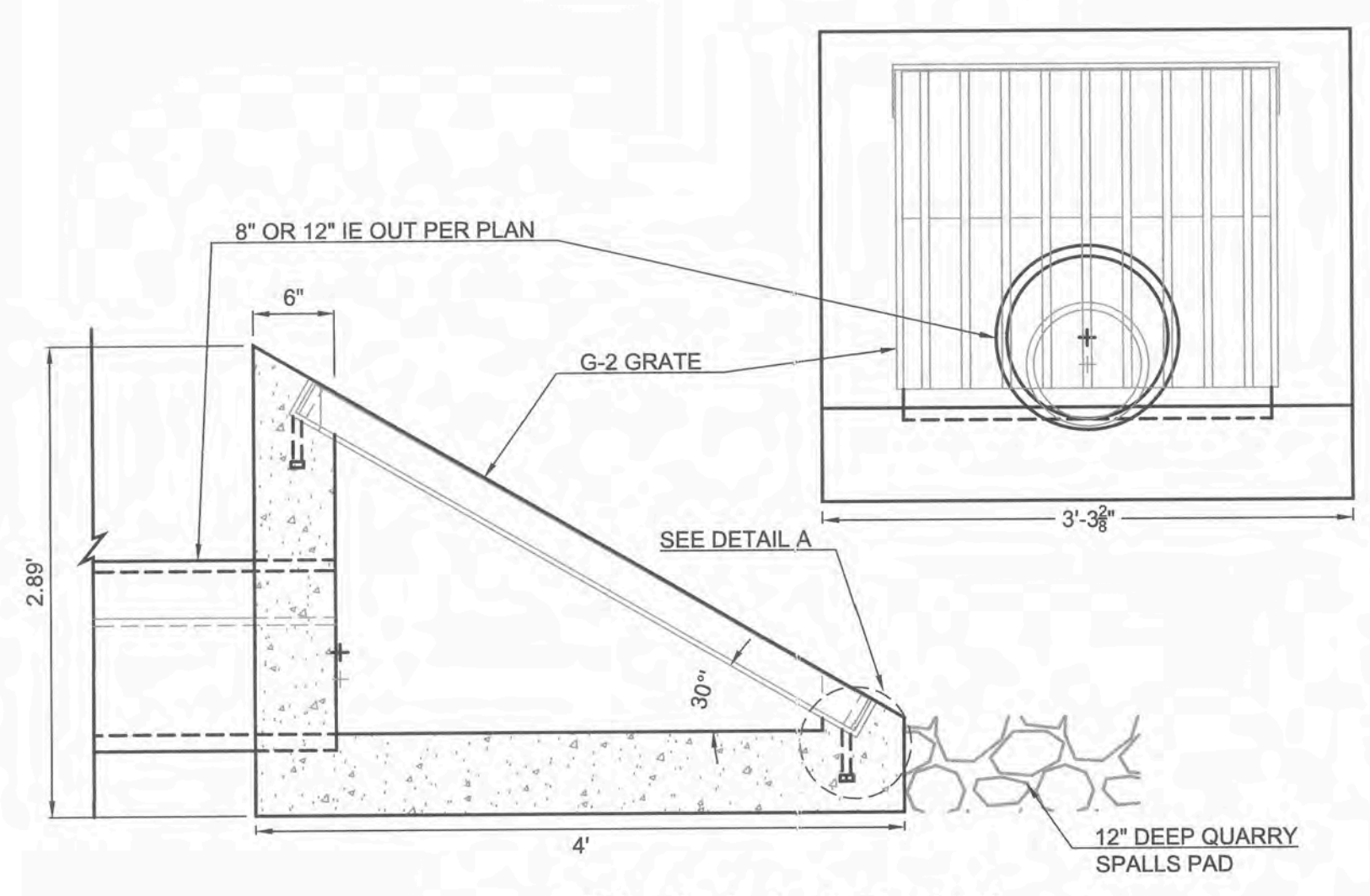
Emergency Overflow Spillway
NTS



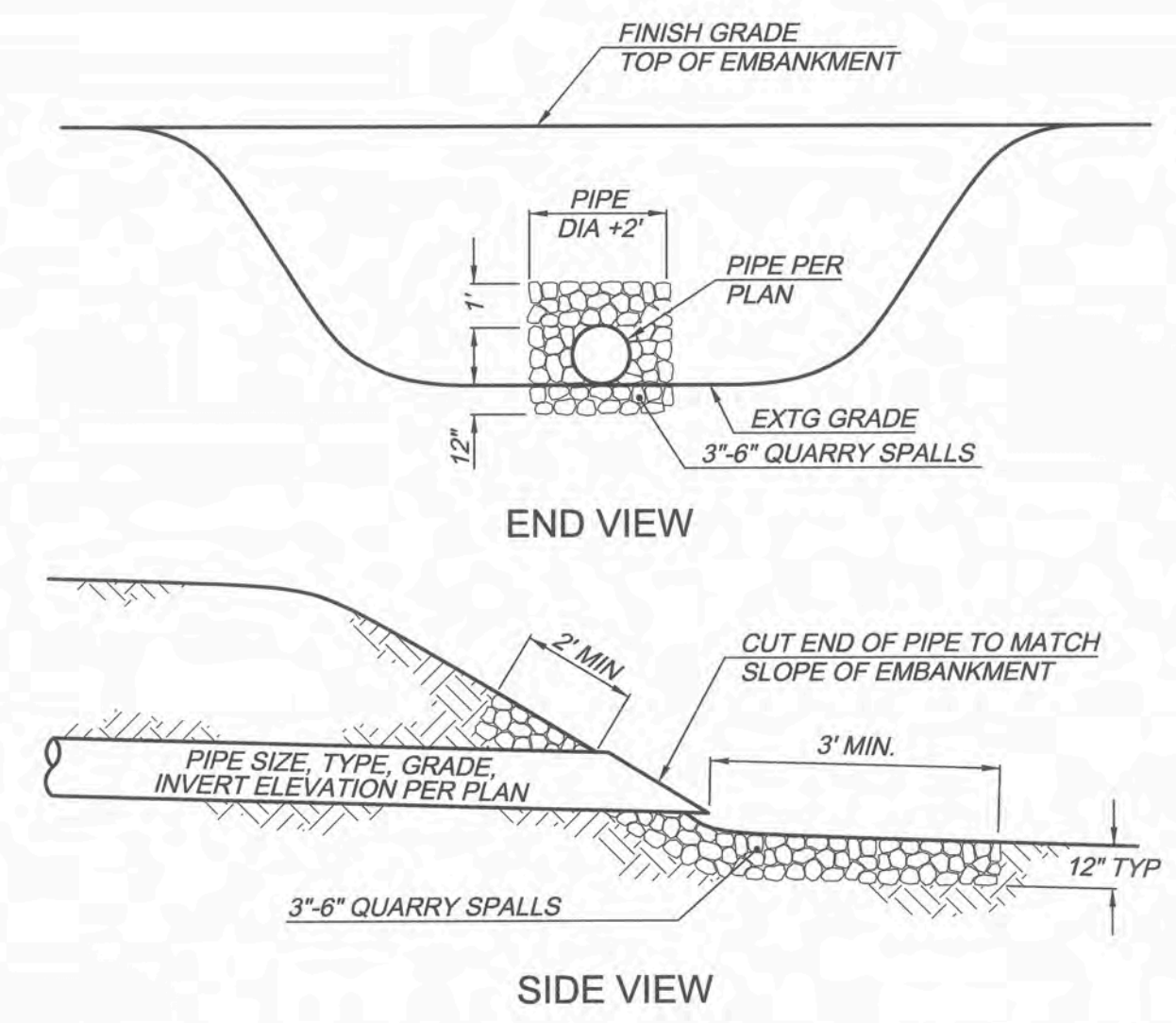
G-2 FRAME
G-2 GRATE (TYPE 1)



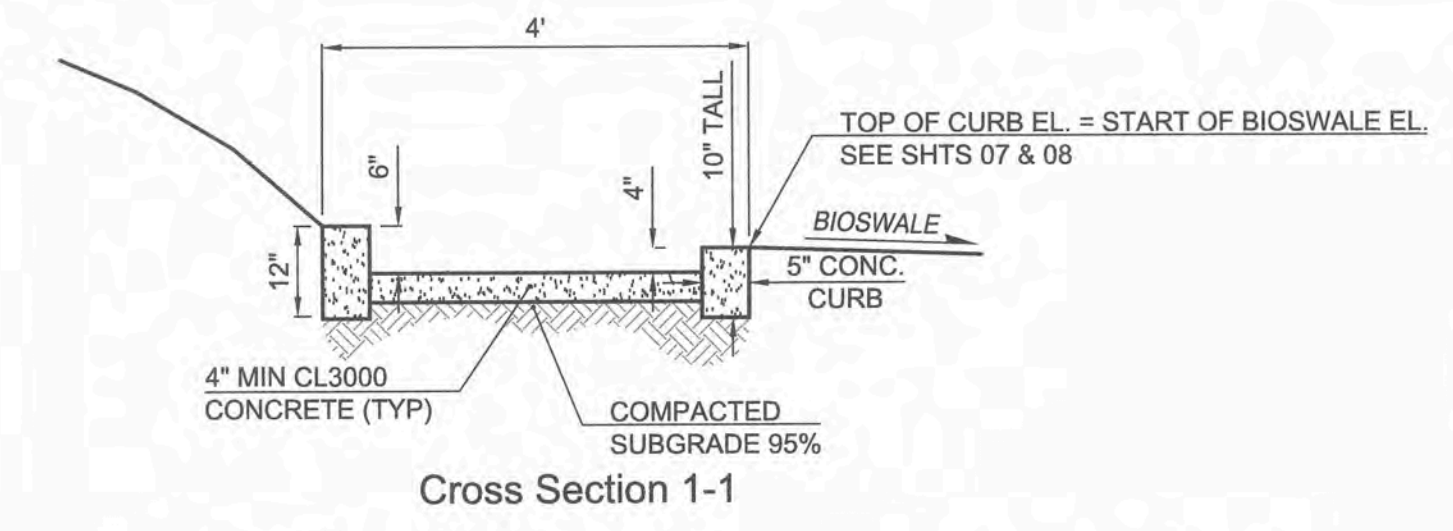
DETAIL A



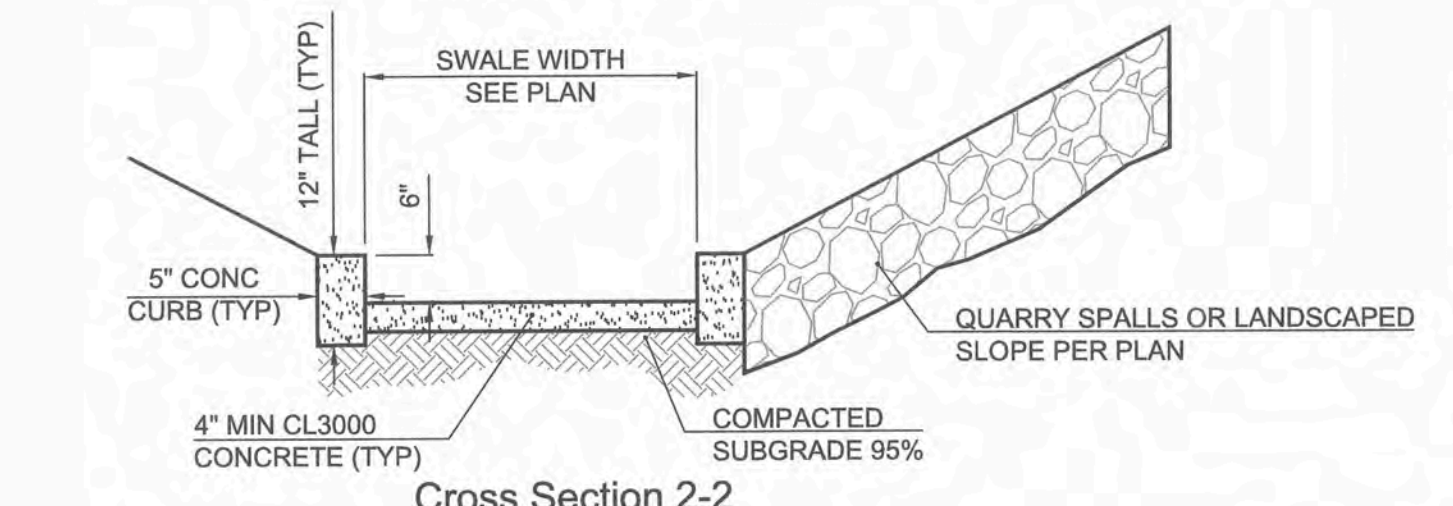
Ditch Inlet Detail
NTS



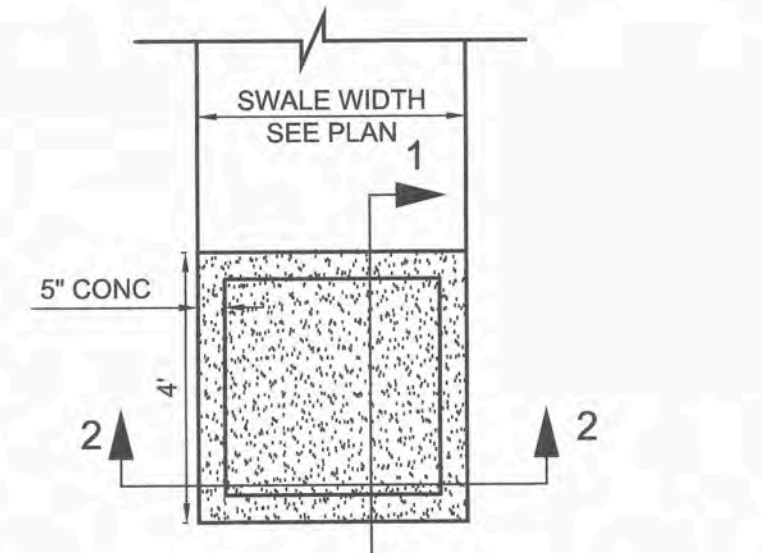
Typical Outlet Protection Detail
NTS



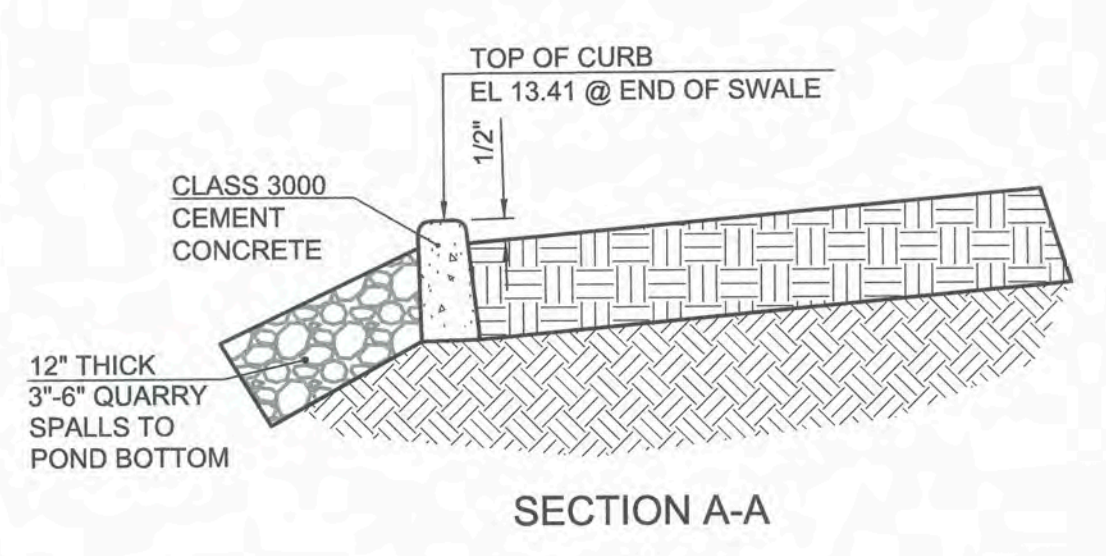
Cross Section 1-1



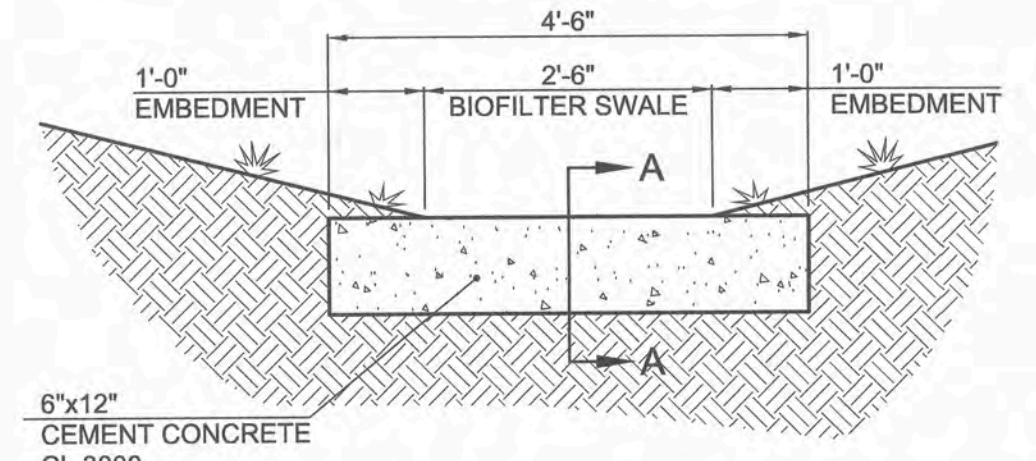
Cross Section 2-2



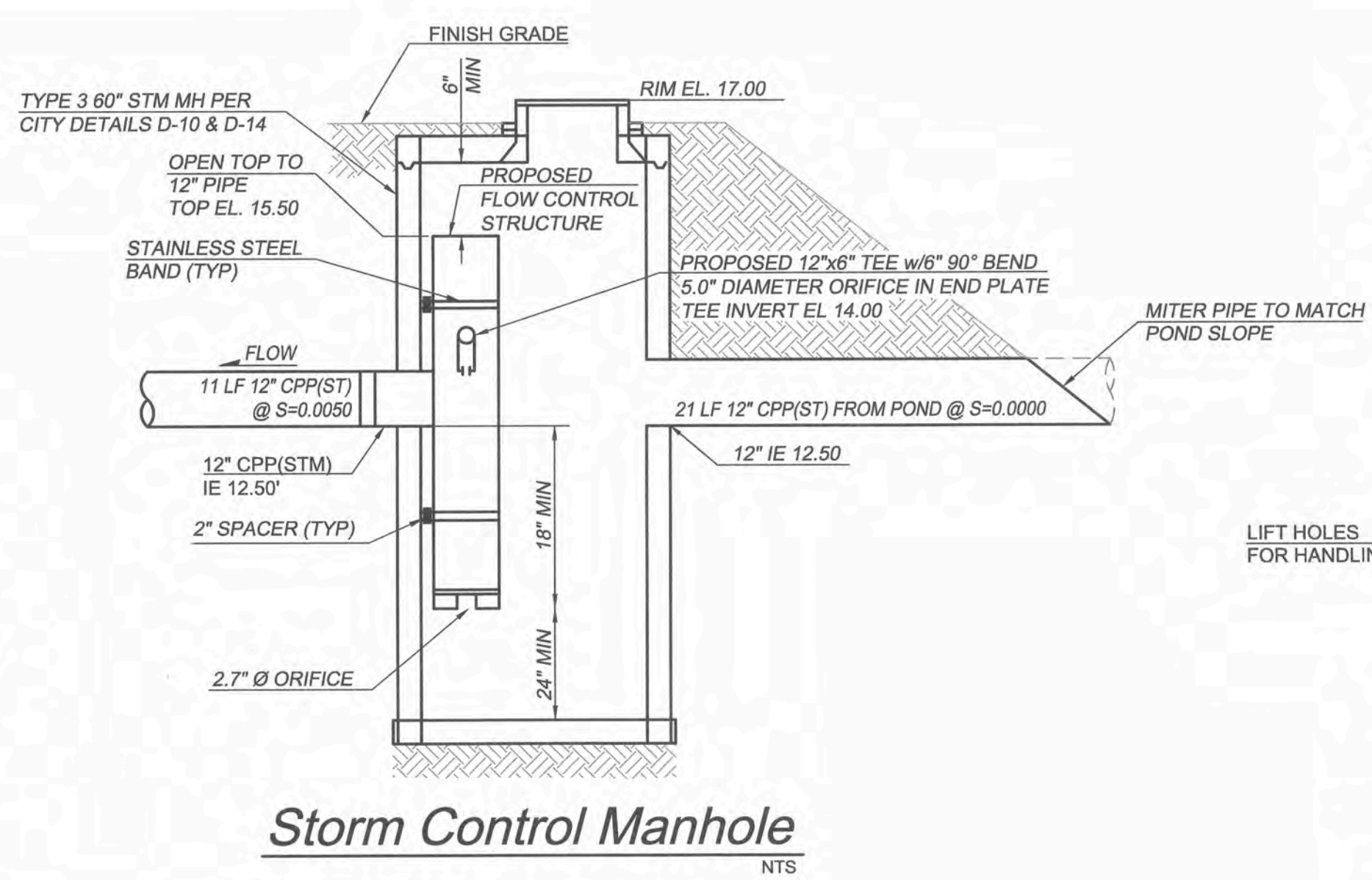
Bioswale Sediment Trap
NTS



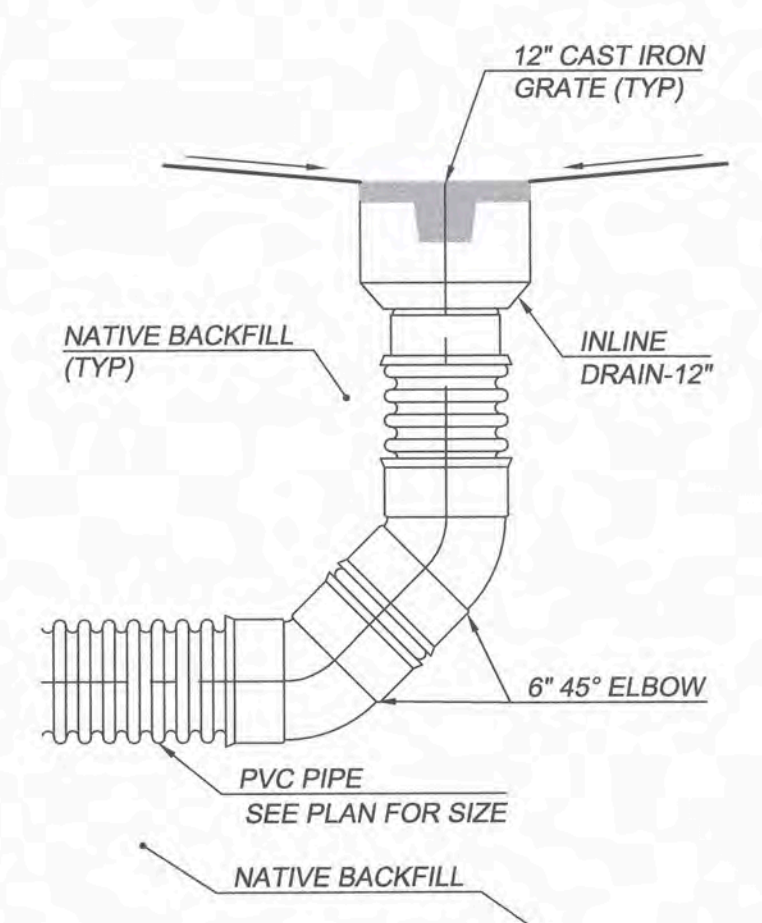
SECTION A-A



Concrete Flow Spreader Detail
NTS

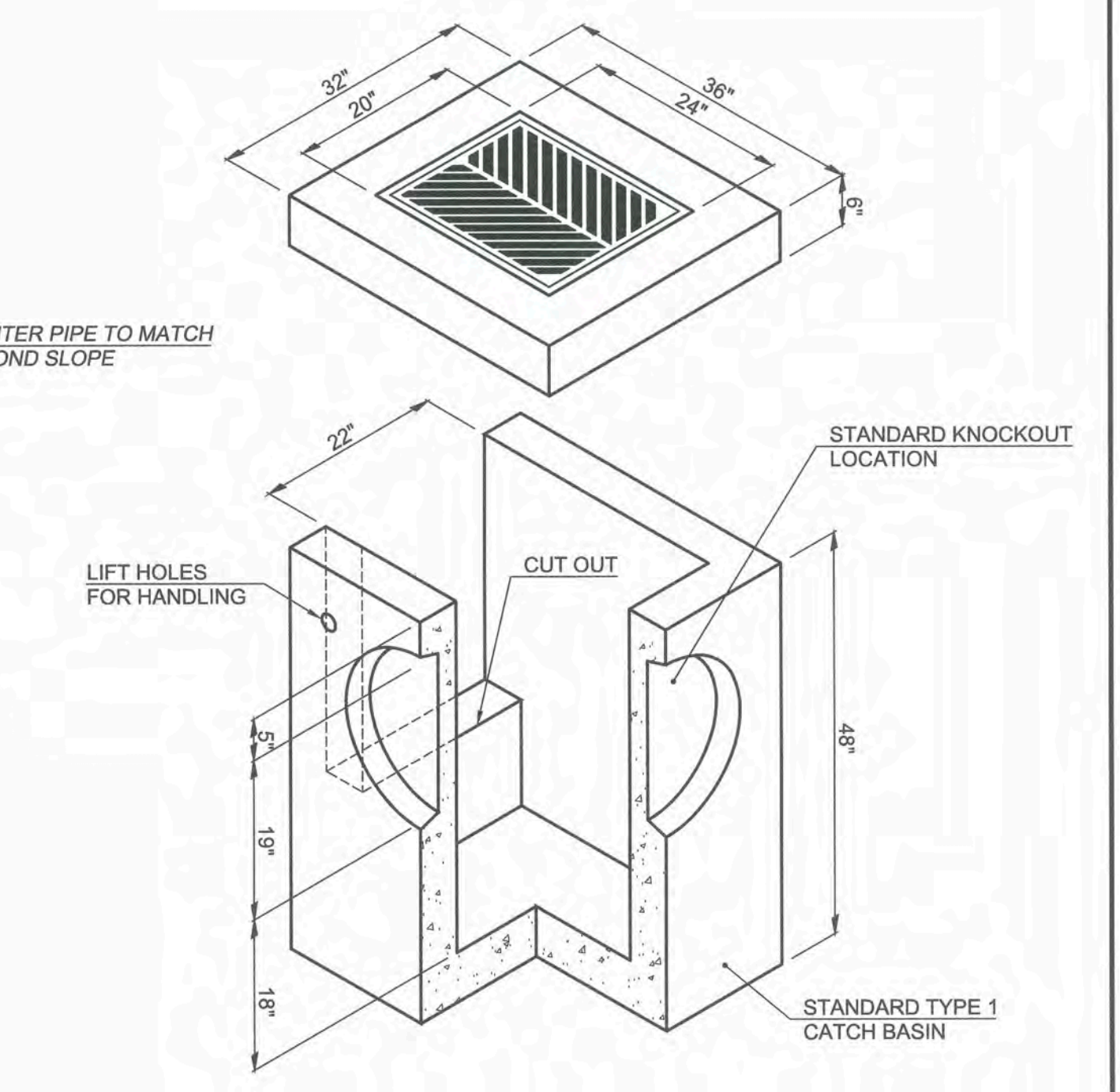


Storm Control Manhole
NTS

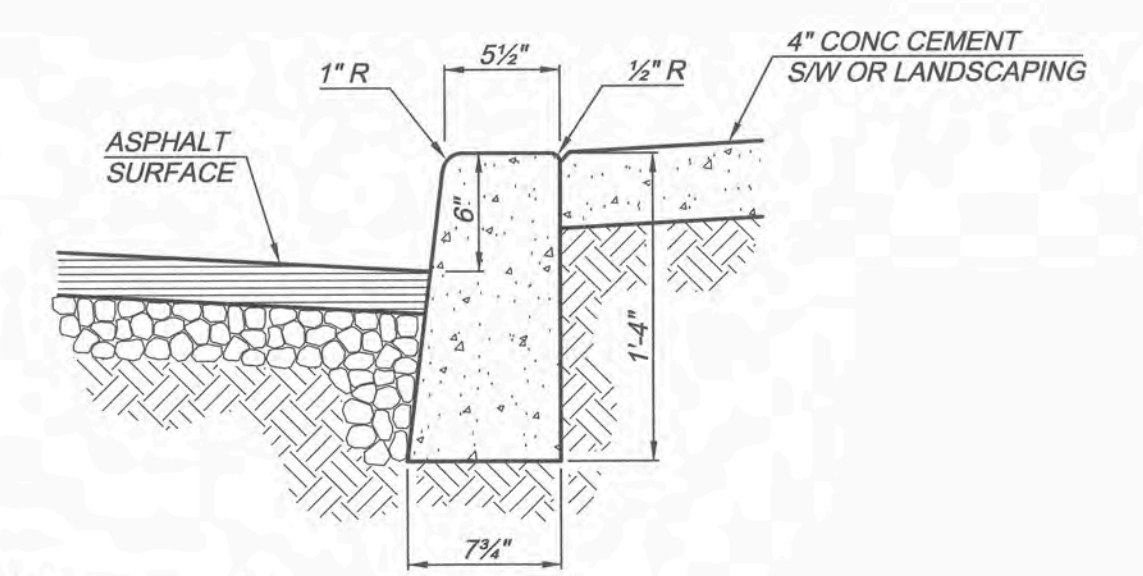


Private Area Drain
NTS

Notes:
For detailed construction specifications see ADS surface drainage products manual.

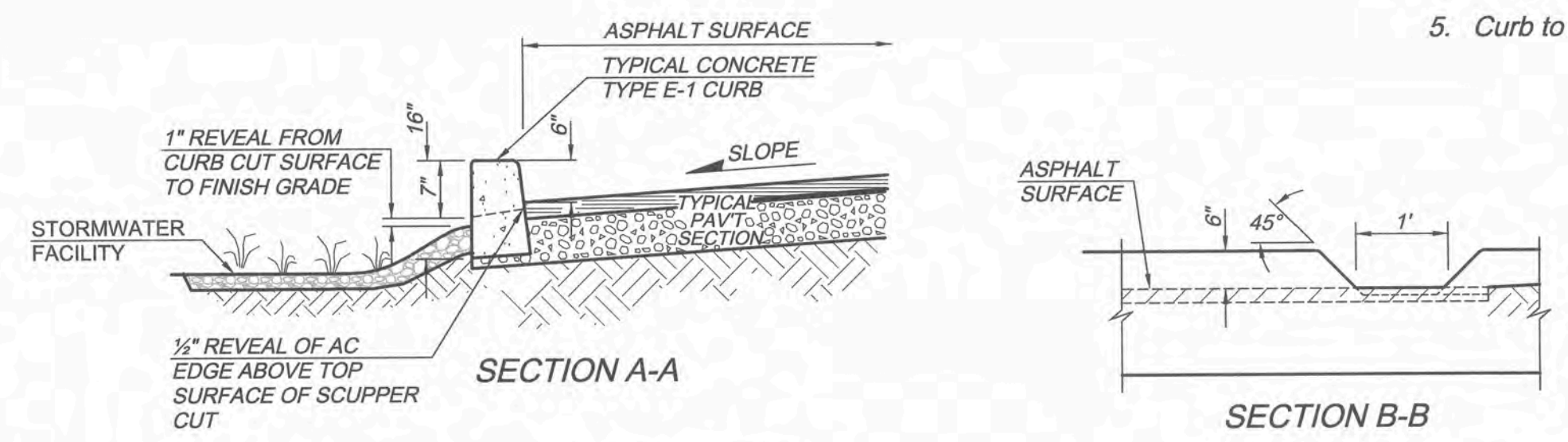


Catch Basin Detail
NTS

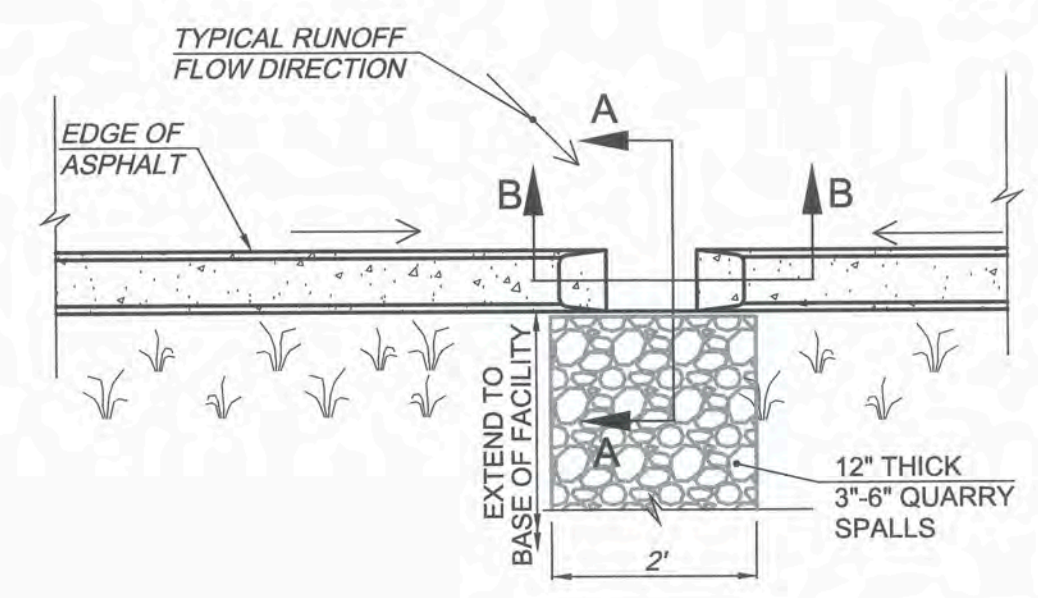


Type E-1 Barrier Curb
NTS

- Notes:
- Concrete shall be class 3000.
 - Curbs adjacent to pavement or sidewalk to have expansion and/or contraction joints to match existing patterns.
 - 3/8" expansion joints shall be placed at 45' maximum spacing, on both sides of catch basins, at tops of driveways, and all changes in direction. 1 1/2" cut joints to be placed at 15' maximum spacing.
 - Compact subgrade and aggregated to 95% of max. dry density.
 - Curb to be brush finished.



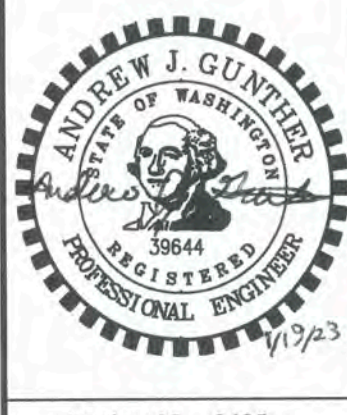
Typical Asphalt Section
NTS



Curb Cut
NTS

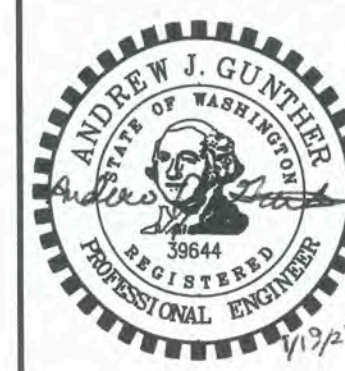
Gravel Control MH Access Typical Section
NTS

Revisions	1	2	3	4	5	6

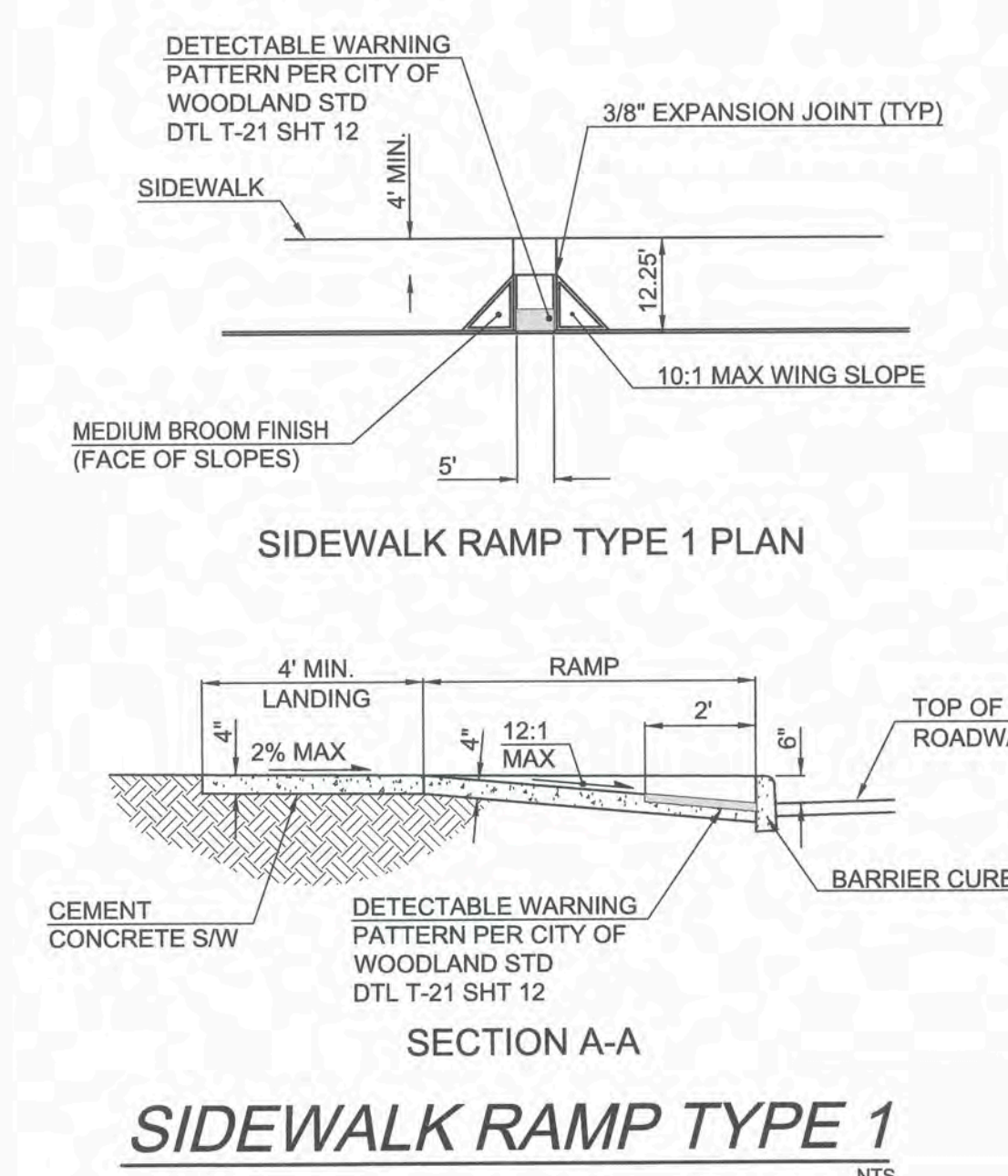
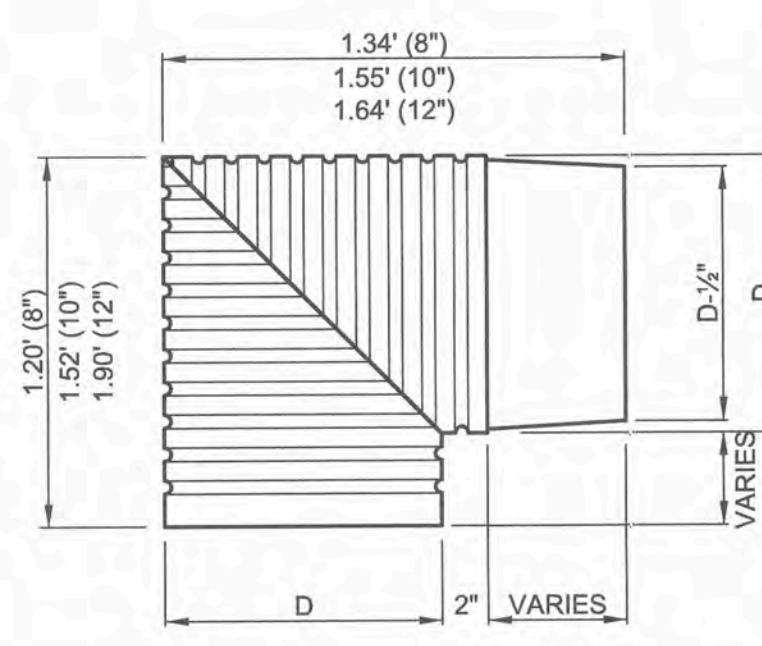
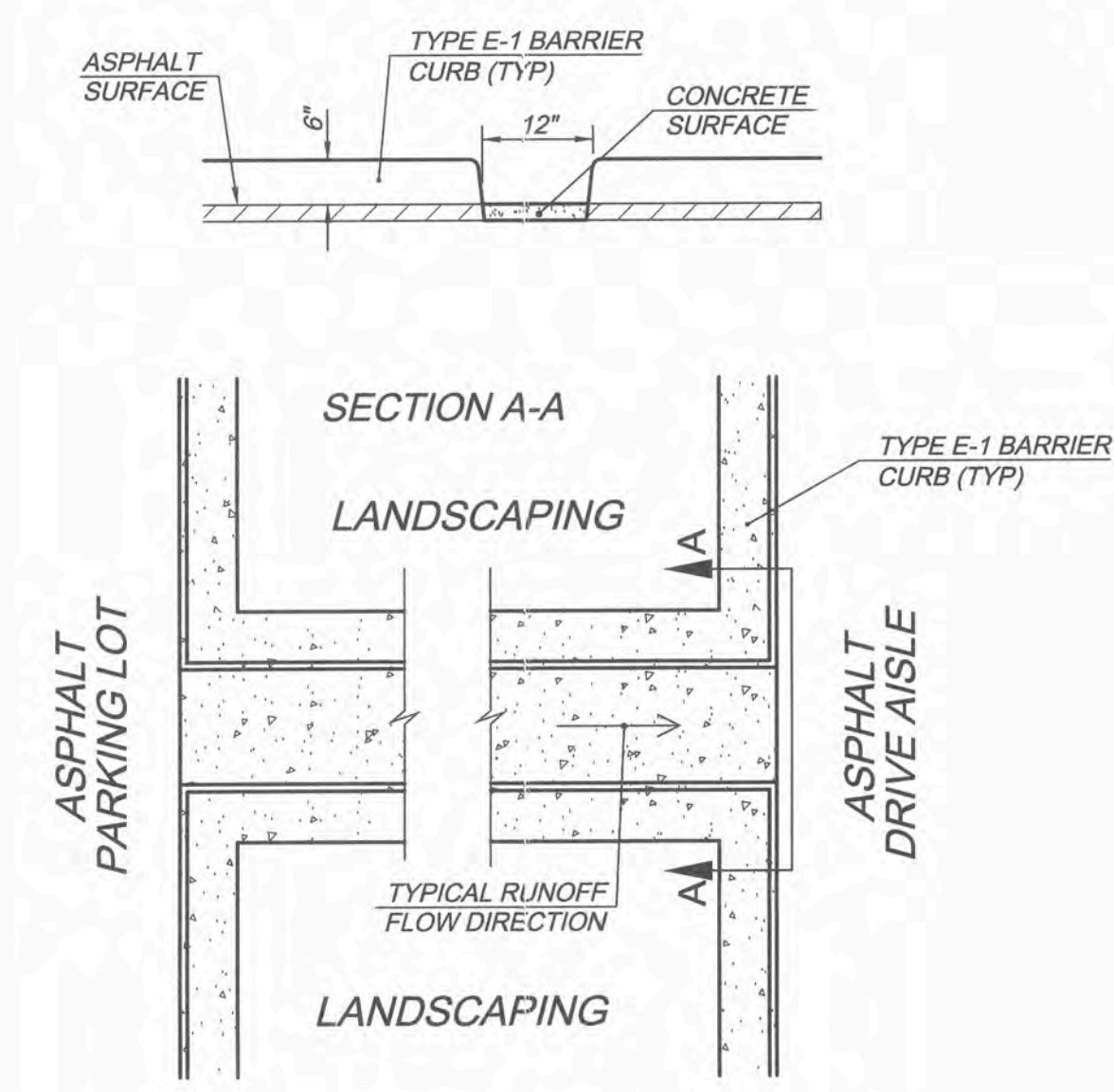
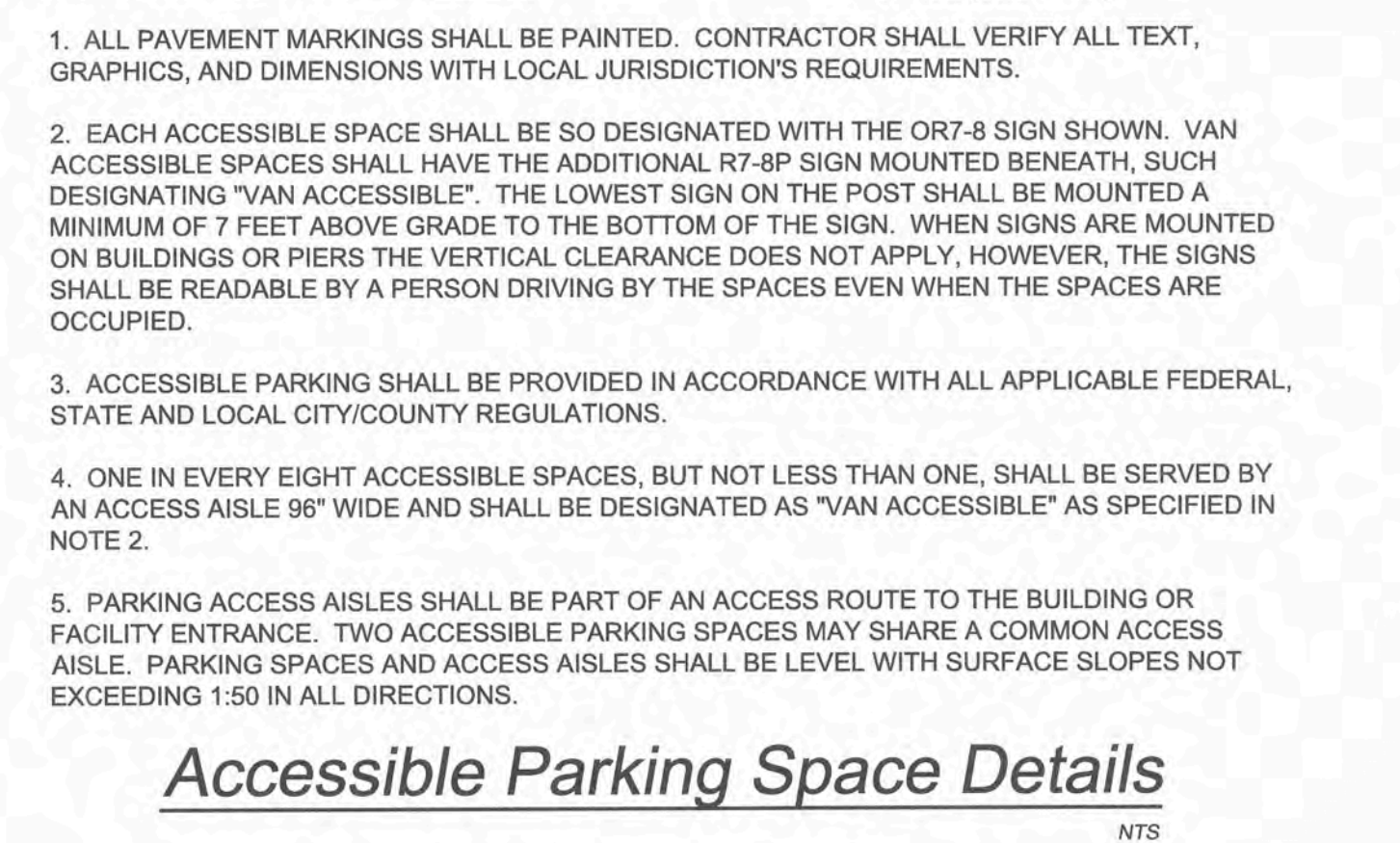
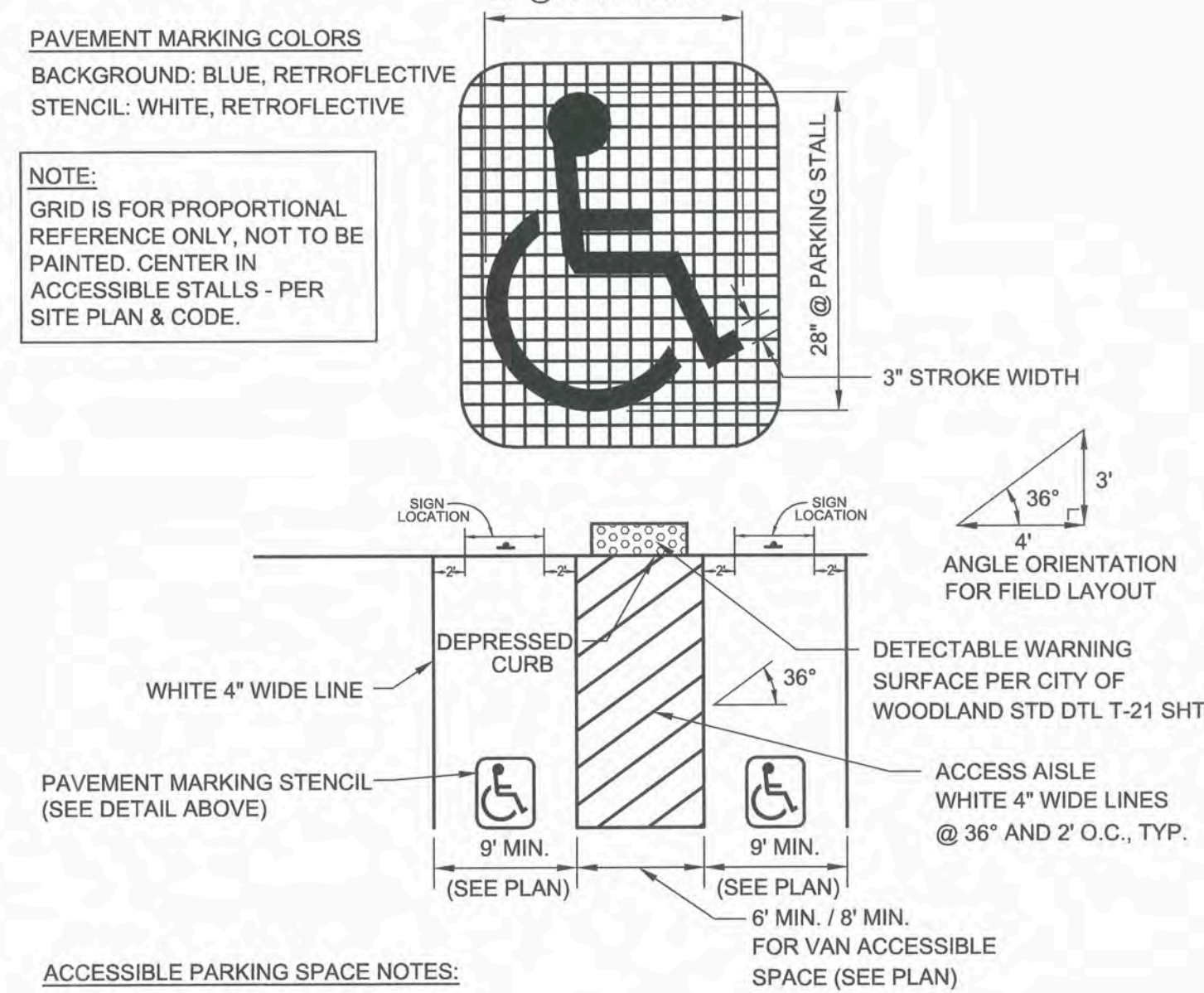
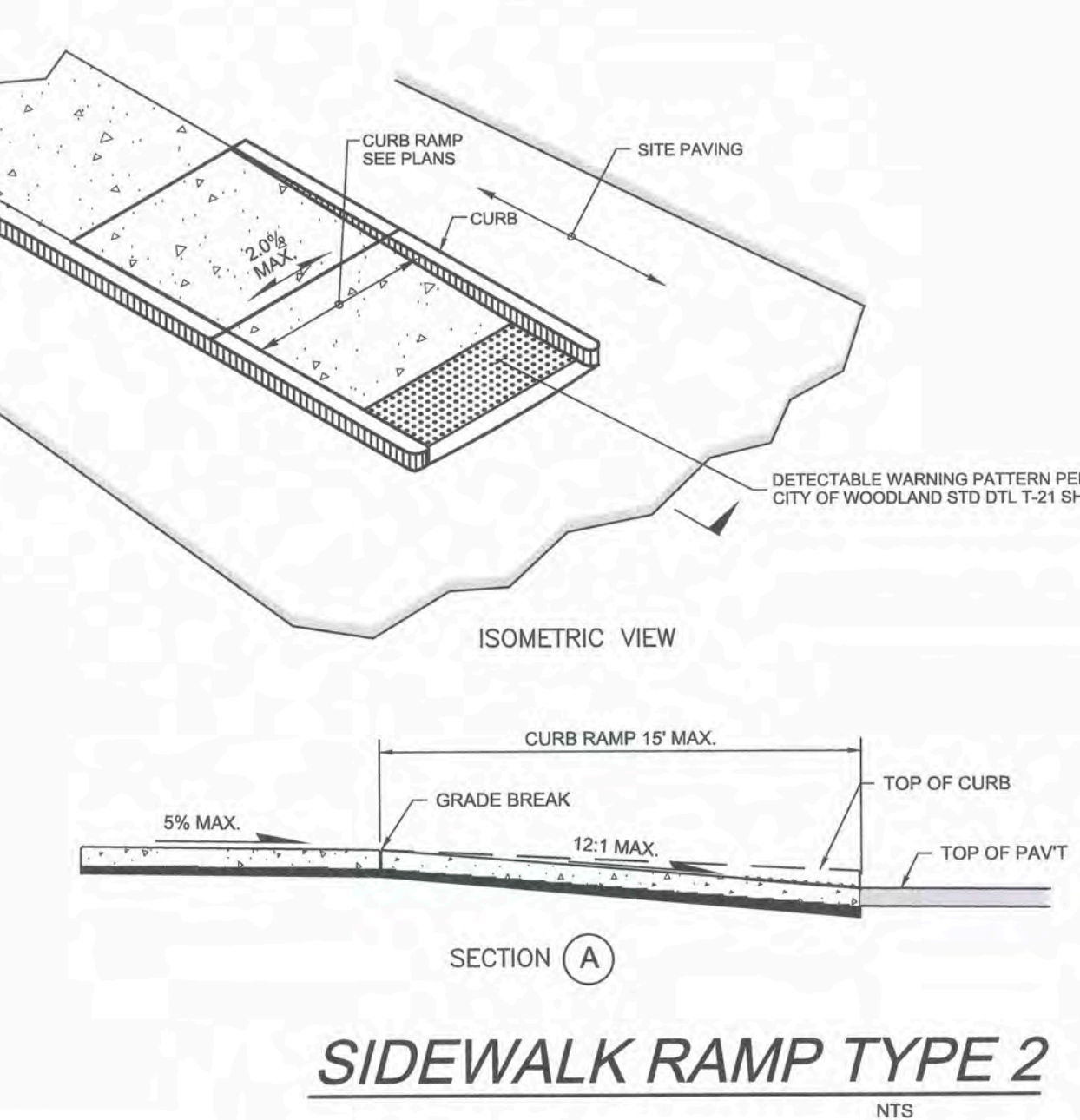
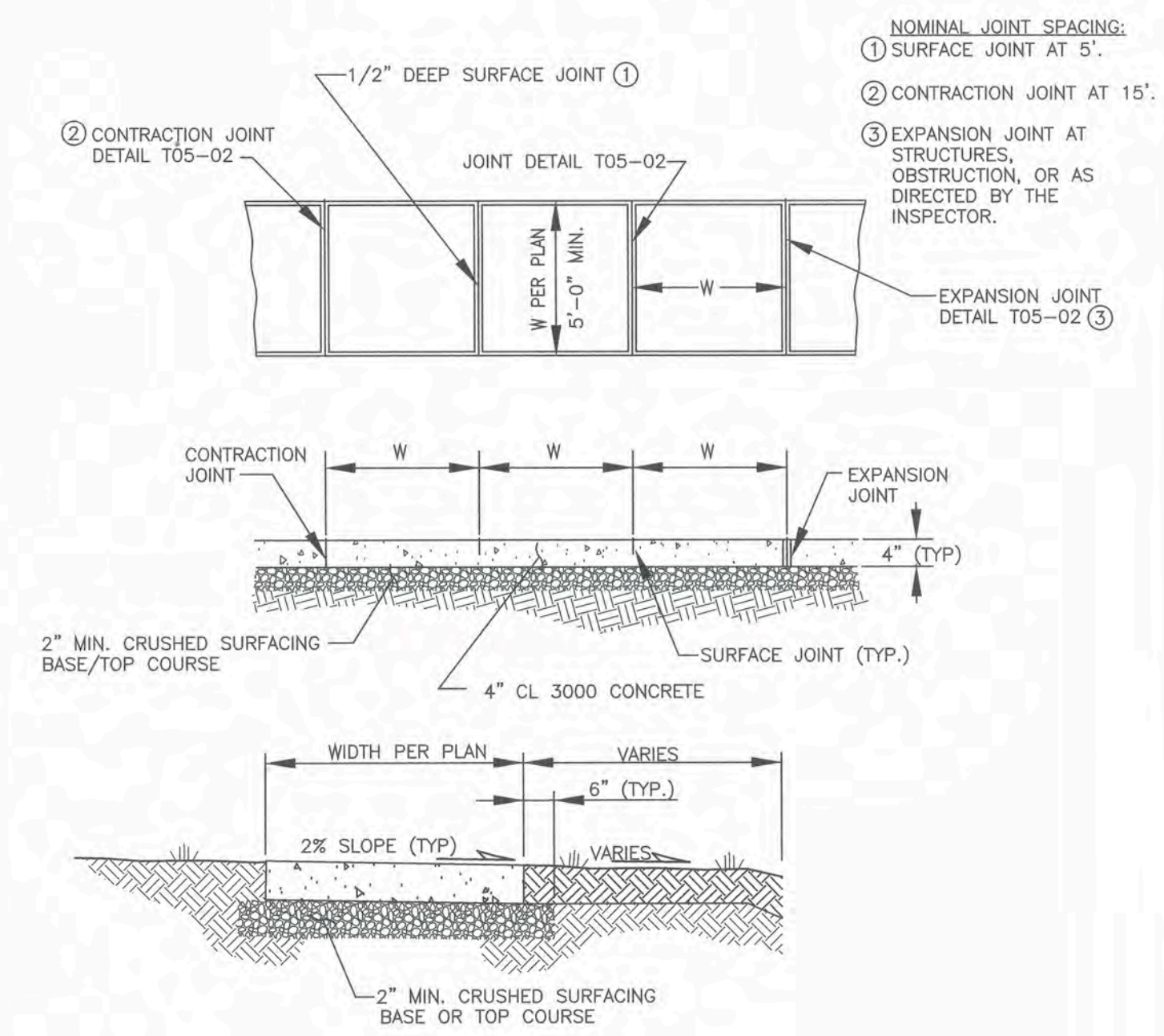
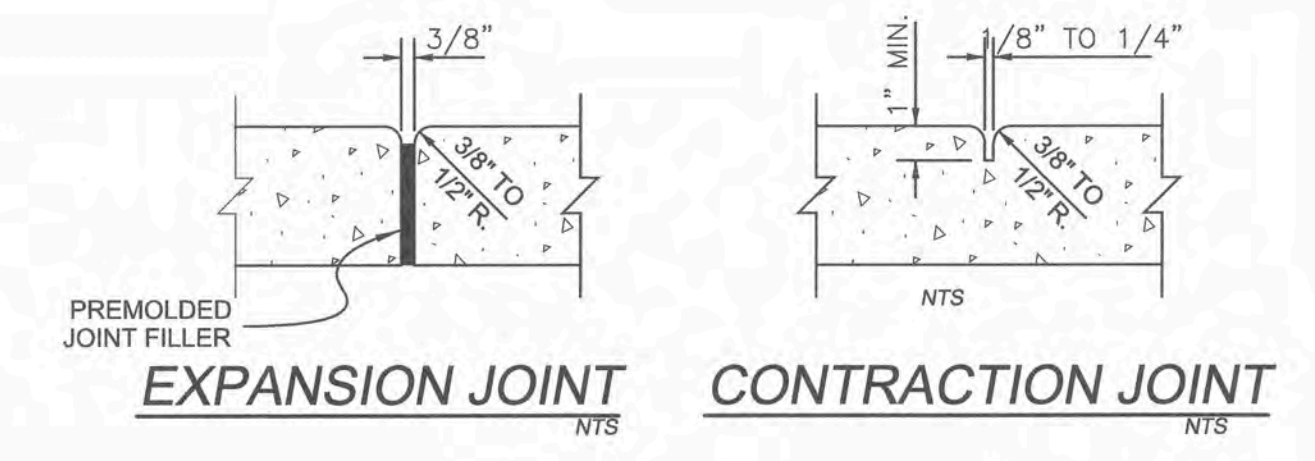


Project No. 3405
SCALE: H: N/A
V: N/A
DESIGNED BY: TJL
DRAFTED BY: TJL
REVIEWED BY: AJG

1	
2	
3	
4	
5	
6	



Project No.	3405
SCALE:	H: N/A V: N/A
DESIGNED BY:	TJL
DRAFTED BY:	TJL
REVIEWED BY:	AJG

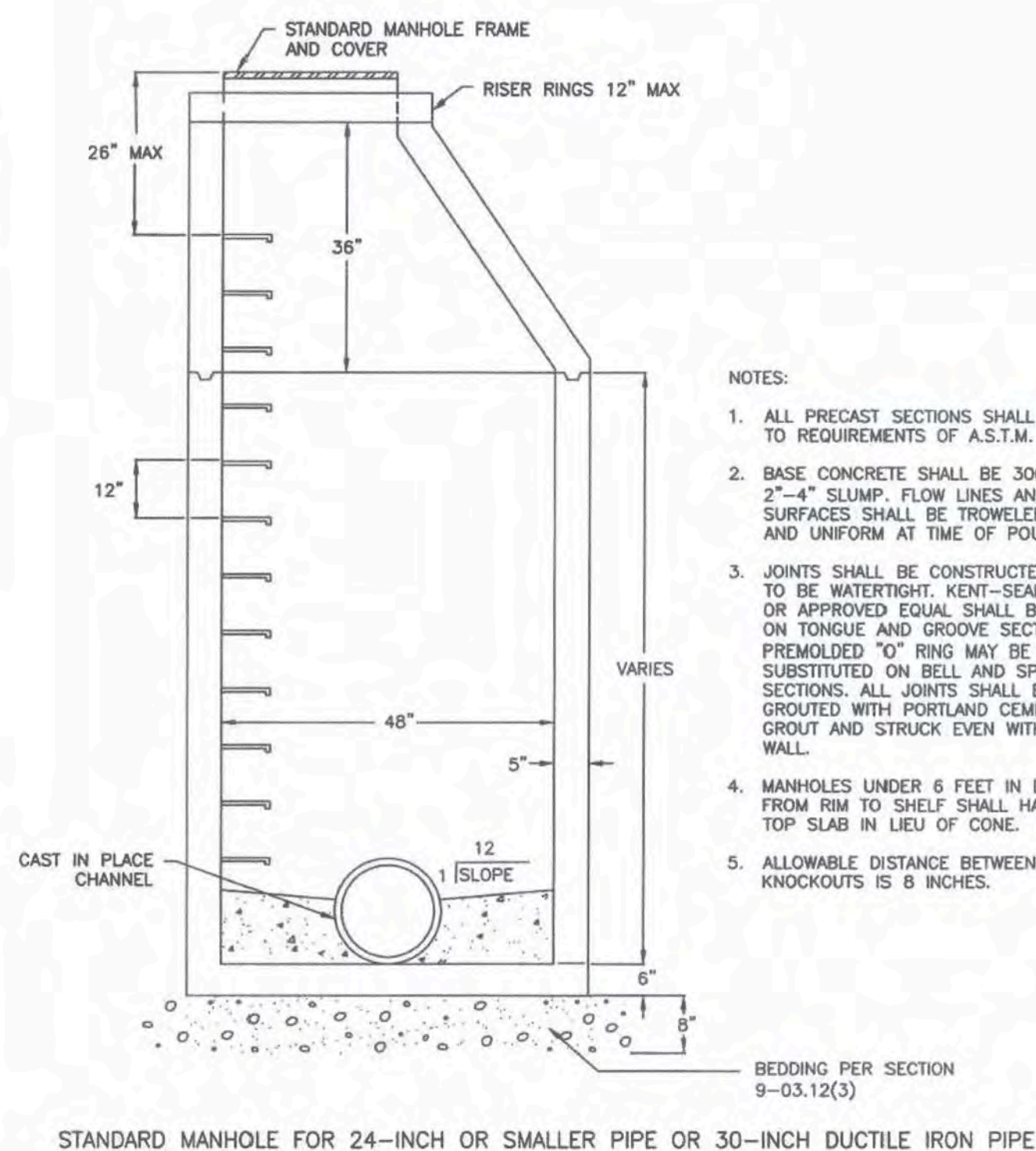


- Sidewalk Ramp Notes:**
- Do not place drainage structures, junction boxes or other obstructions in front of ramp access areas.
 - Detectable warning patterns to be created per City of Woodland standard detail T-21 on sheet 12.
 - Changes in level up to 1/4" may be vertical and without edge treatment. Changes in level between 1/4" and 1/2" shall be beveled with a slope no greater than 1:2.
 - Detectable warning surfaces shall extend 24 inches minimum in the direction of travel and the full width of the curb ramp, landing or blended transition.
 - The detectable warning surface shall be located so that the edge nearest the face of curb is 6 inches minimum and 8 inches maximum from the face of curb.
 - Concrete 3,000 psi minimum.

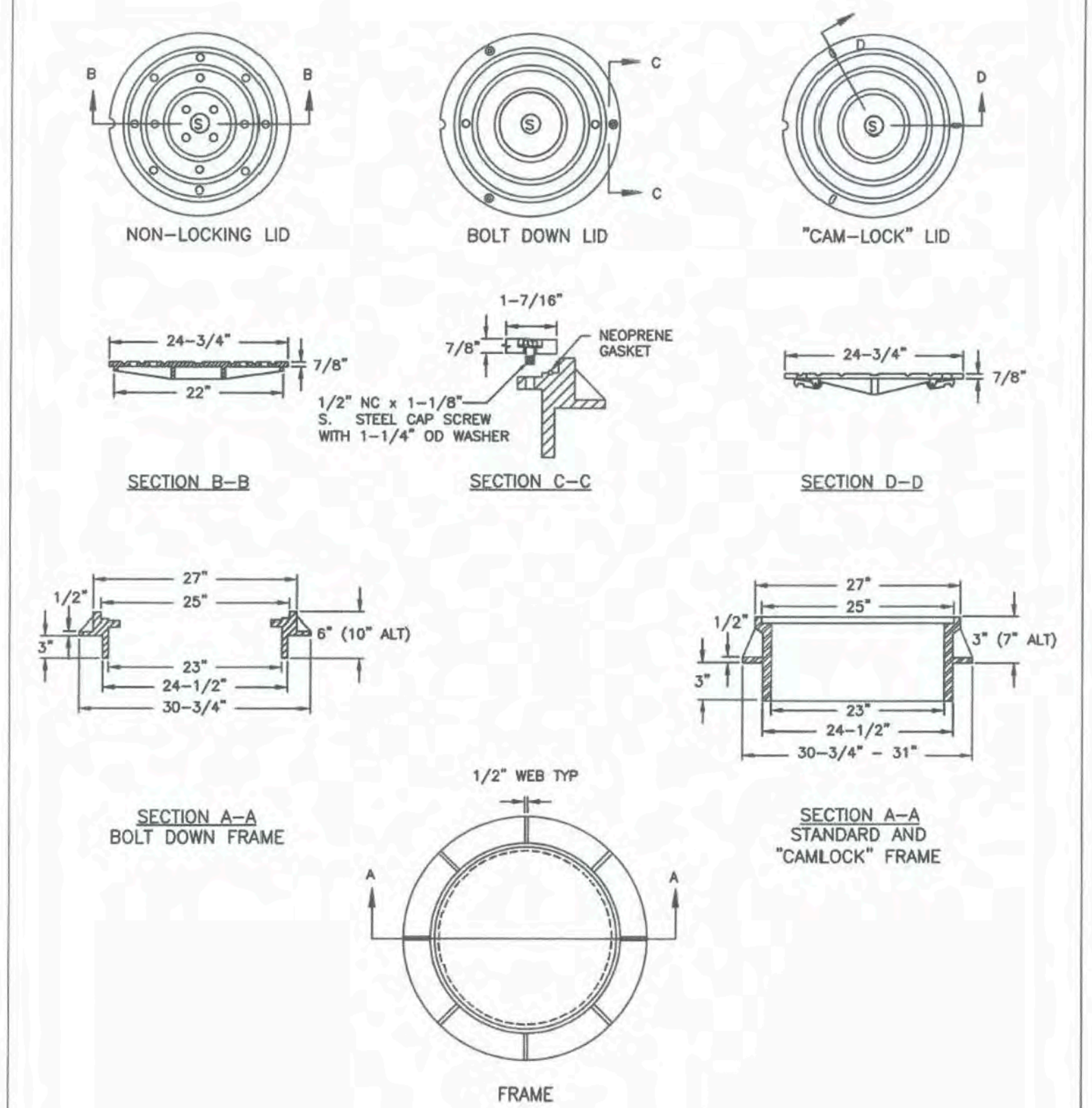
GENERAL NOTES FOR STORM SEWERS

- 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, THE PUBLIC WORKS ENGINEERING STANDARDS, 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 "SECRETARY" OR WHEN REFERENCE 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) 225-7999 AT LEAST 48 HOURS PRIOR TO THE START OF ANY CONSTRUCTION. THE CITY MAY REQUIRE THAT A PRECONSTRUCTION CONFERENCE BE HELD.
- THE CONTRACTOR IS REQUIRED TO NOTIFY ALL UTILITIES 48 HOURS PRIOR TO COMMENCING WORK. THE CONTRACTOR MAY CONTACT THE UTILITY NOTIFICATION CENTER BY DIALING 811 IN LIEU OF CONTACTING INDIVIDUAL UTILITIES.
- IT SHALL BE THE RESPONSIBILITY OF THE DEVELOPER AND/OR CONTRACTOR TO PROCURE AND COMPLY WITH THE PROVISIONS OF ALL APPLICABLE PERMITS, EASEMENTS, LICENSES AND CERTIFICATES IN CONJUNCTION 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 CUT 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 DEVELOPER OR 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 SWALE AND POND SYSTEMS SHALL BE ESTABLISHED AND MECHANICAL DEVICES AND FILTER MEDIA SHALL BE INSTALLED. SWALES AND FILTER STRIPS WILL BE SEEDED WITH AN APPROVED SEED MIX. PER THE WESTERN WASHINGTON TURF IS ALLOWED FOR VEGETATED FILTERS PROVIDED THE TURF AREA IS OVERSEEDDED WITH THE EQUIVALENT GRASS SEED MIX.
- ALL CATCH BASINS SHALL BE STENCILED: "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 SHOWN ON APPROVED CIVIL ENGINEERING PLANS.
- THE CONTRACTOR WILL PROVIDE A TELEVISION REPORT, TAPE, AND TABULAR AS-BUILT OF ALL PUBLIC STORM MAINS AND LATERALS PRIOR TO PAVING. THIS INFORMATION WILL BE SUBMITTED TO THE CITY INSPECTOR FOR REVIEW. APPROVAL 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 TESTING IN ACCORDANCE WITH SECTIONS 1-05.11, 1-05.12, AND 7-04.3 OF THE STANDARD SPECIFICATIONS.

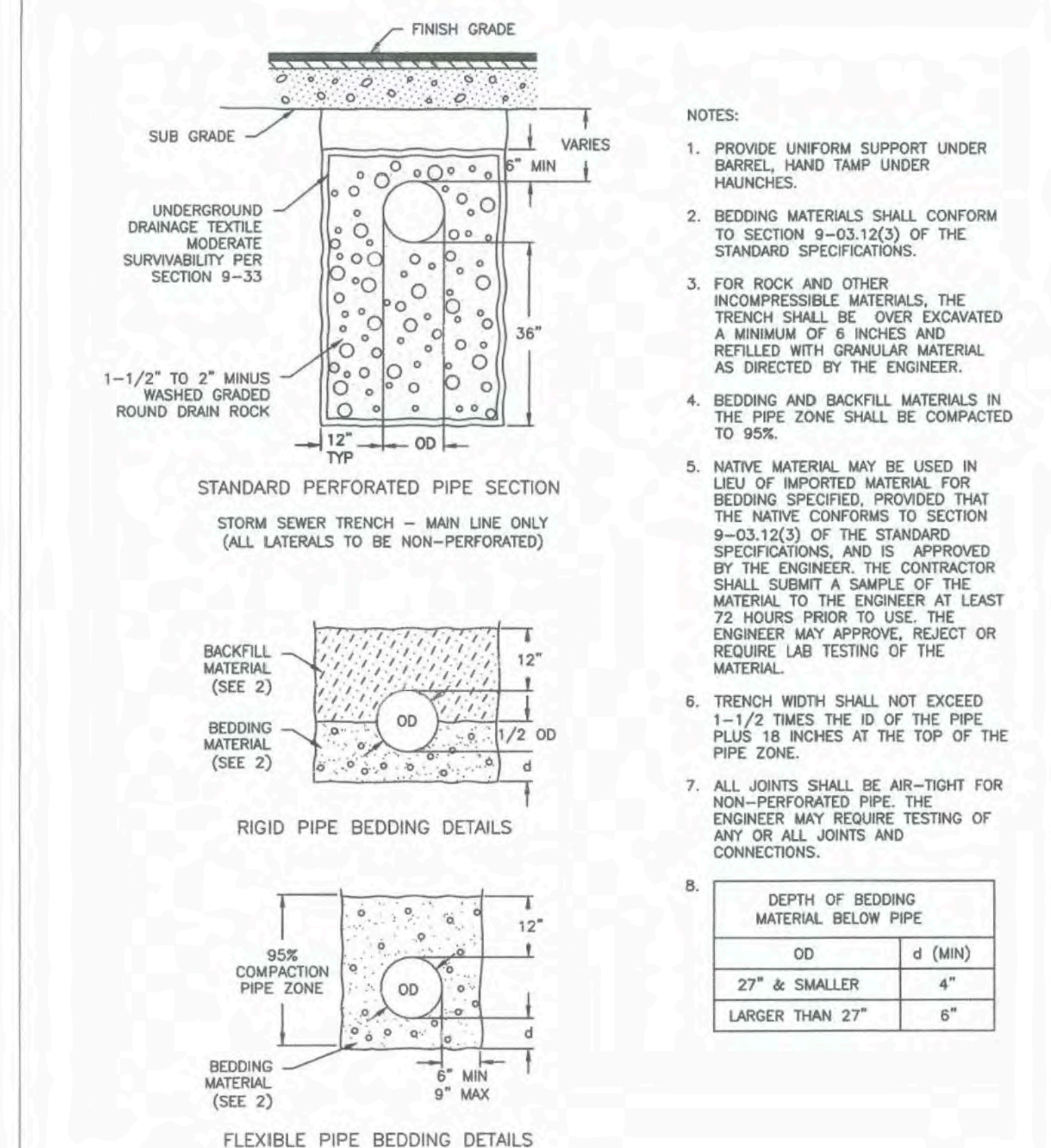
GENERAL NOTES FOR STORM SEWERS					
APPROVED	REVISIONS	DATE	DRAWN	DESIGNED	
		3-11-22			D-01
PUBLIC WORKS DIRECTOR		DATE			



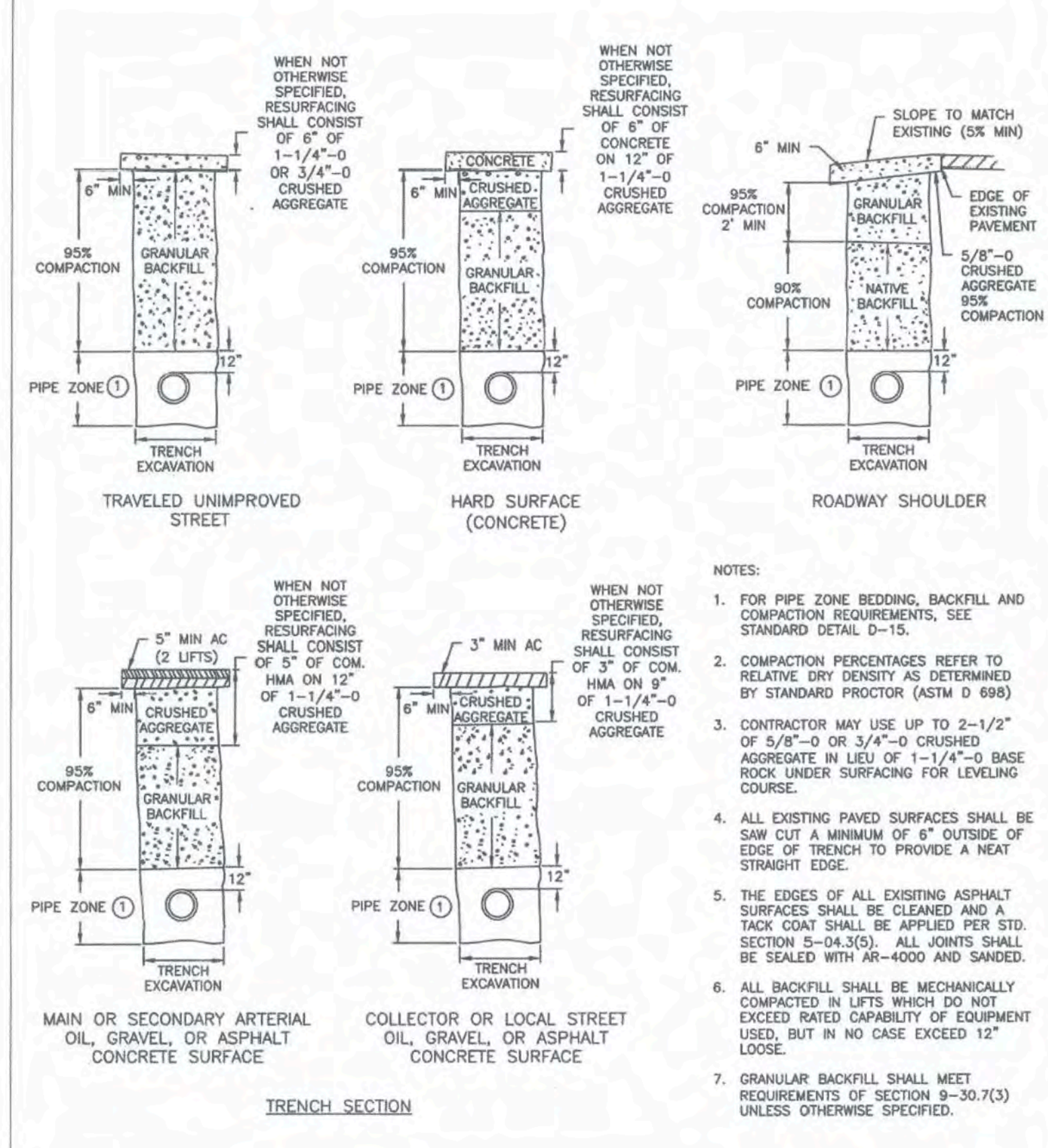
MANHOLE					
APPROVED	REVISIONS	DATE	DRAWN	DESIGNED	
		3-11-22			D-10
PUBLIC WORKS DIRECTOR		DATE			



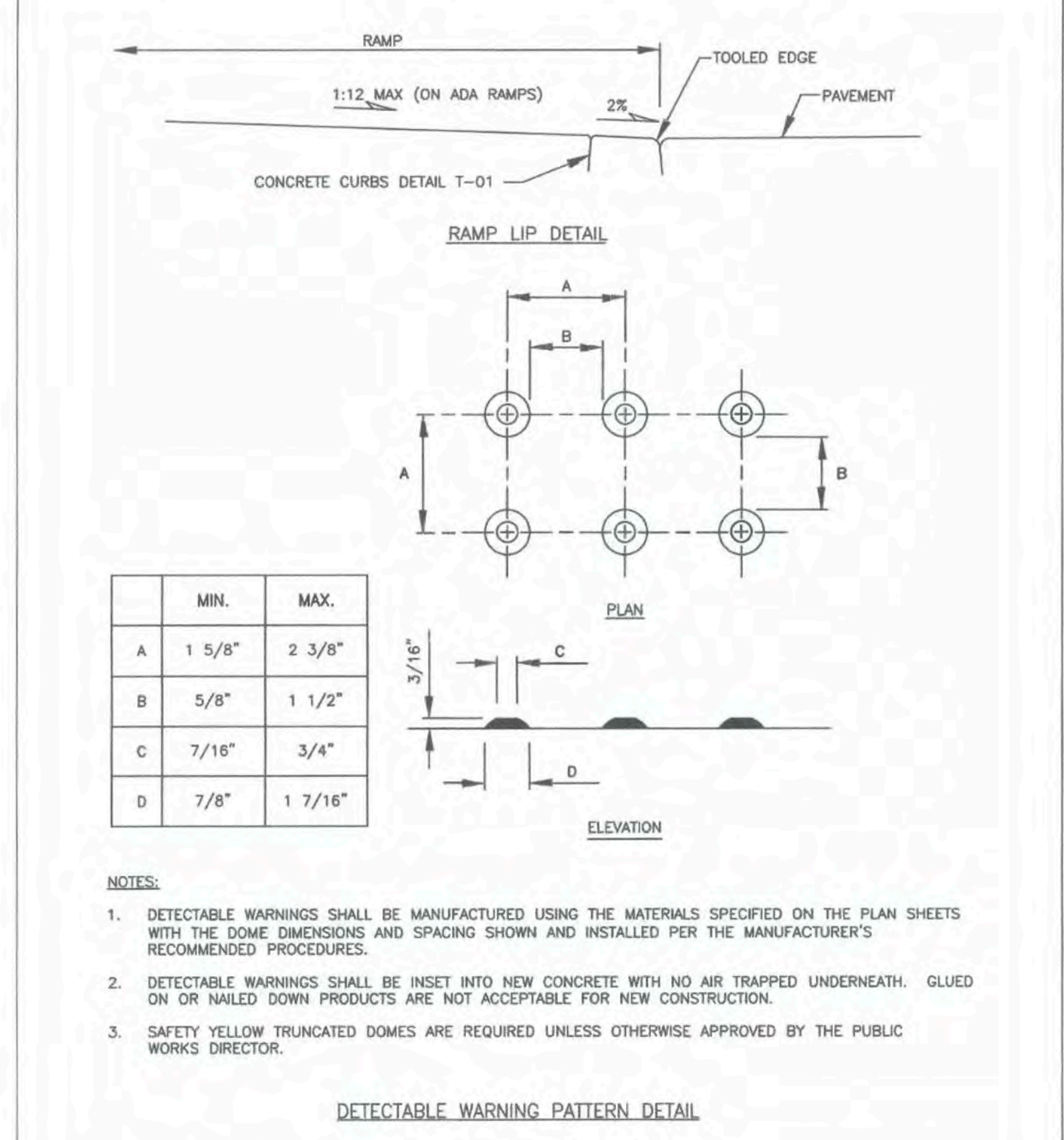
MANHOLE COVER AND FRAME					
APPROVED	REVISIONS	DATE	DRAWN	DESIGNED	
		3-11-22			D-14
PUBLIC WORKS DIRECTOR		DATE			



PIPE BEDDING					
APPROVED	REVISIONS	DATE	DRAWN	DESIGNED	
		3-11-22			D-15
PUBLIC WORKS DIRECTOR		DATE			

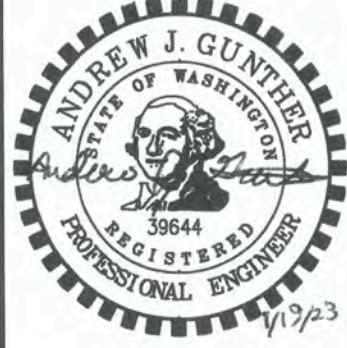


TRENCH BACKFILL					
APPROVED	REVISIONS	DATE	DRAWN	DESIGNED	
		3-11-22			D-16
PUBLIC WORKS DIRECTOR		DATE			



RAMP LIP AND DETECTABLE WARNING PATTERN					
APPROVED	REVISIONS	DATE	DRAWN	DESIGNED	
		2/10/22			T-21
PUBLIC WORKS DIRECTOR		DATE			

Revisions	1	2	3	4	5	6

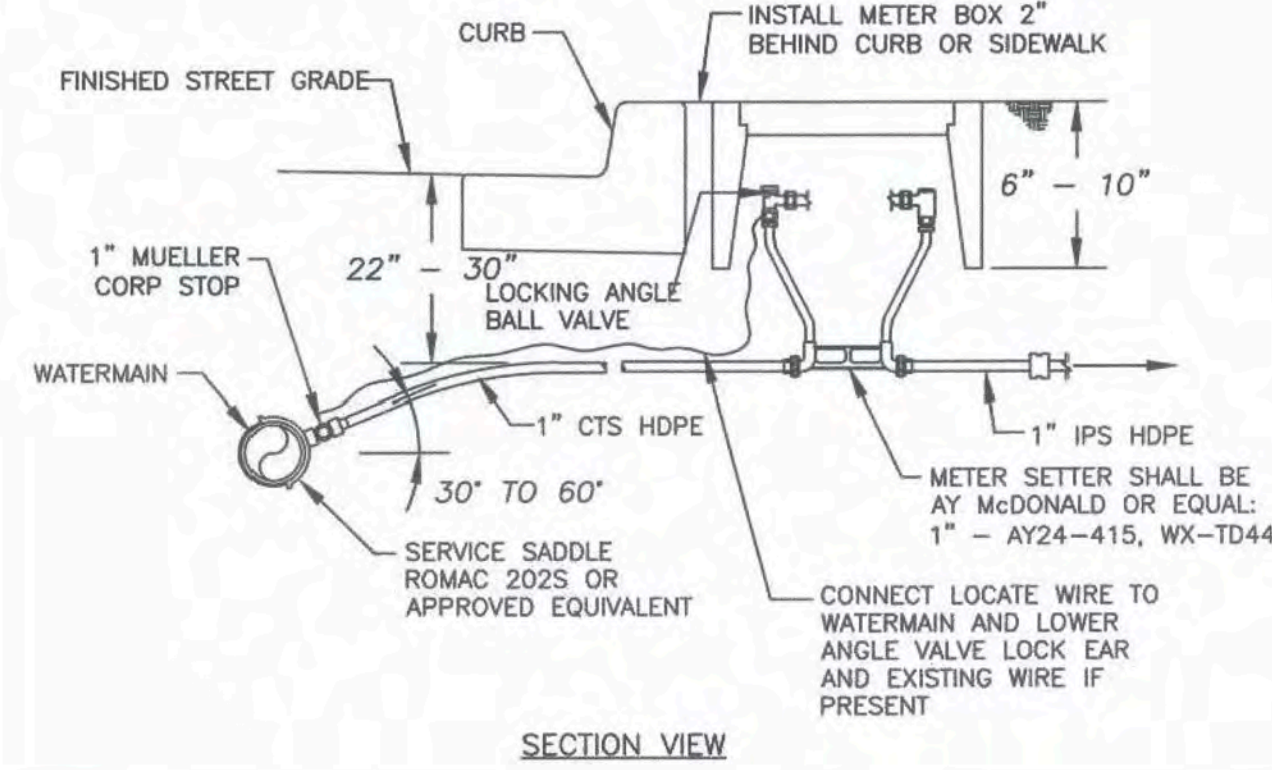
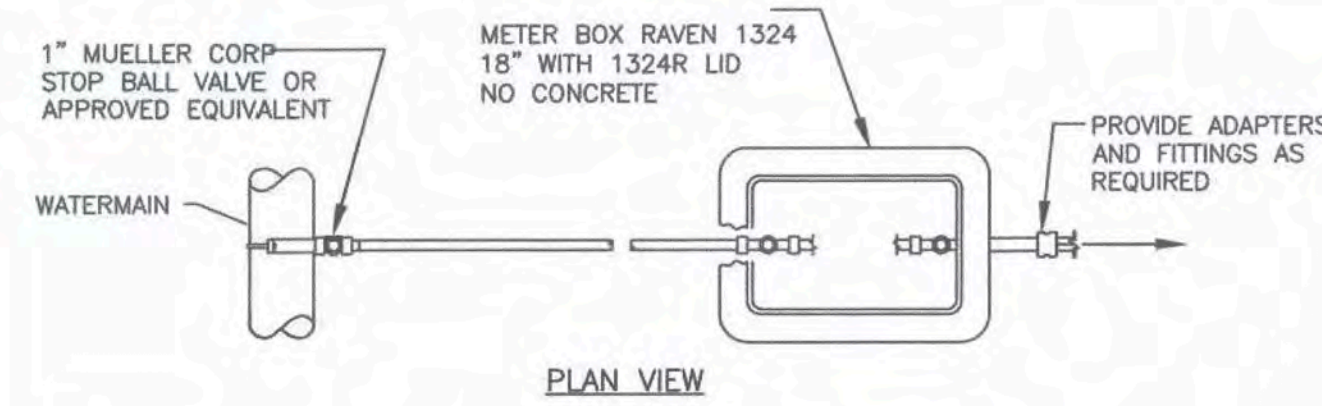


Project No.	3405
SCALE:	H: N/A V: N/A
DESIGNED BY:	TJL
DRAFTED BY:	TJL
REVIEWED BY:	AJG

GENERAL NOTES FOR WATER MAIN INSTALLATION

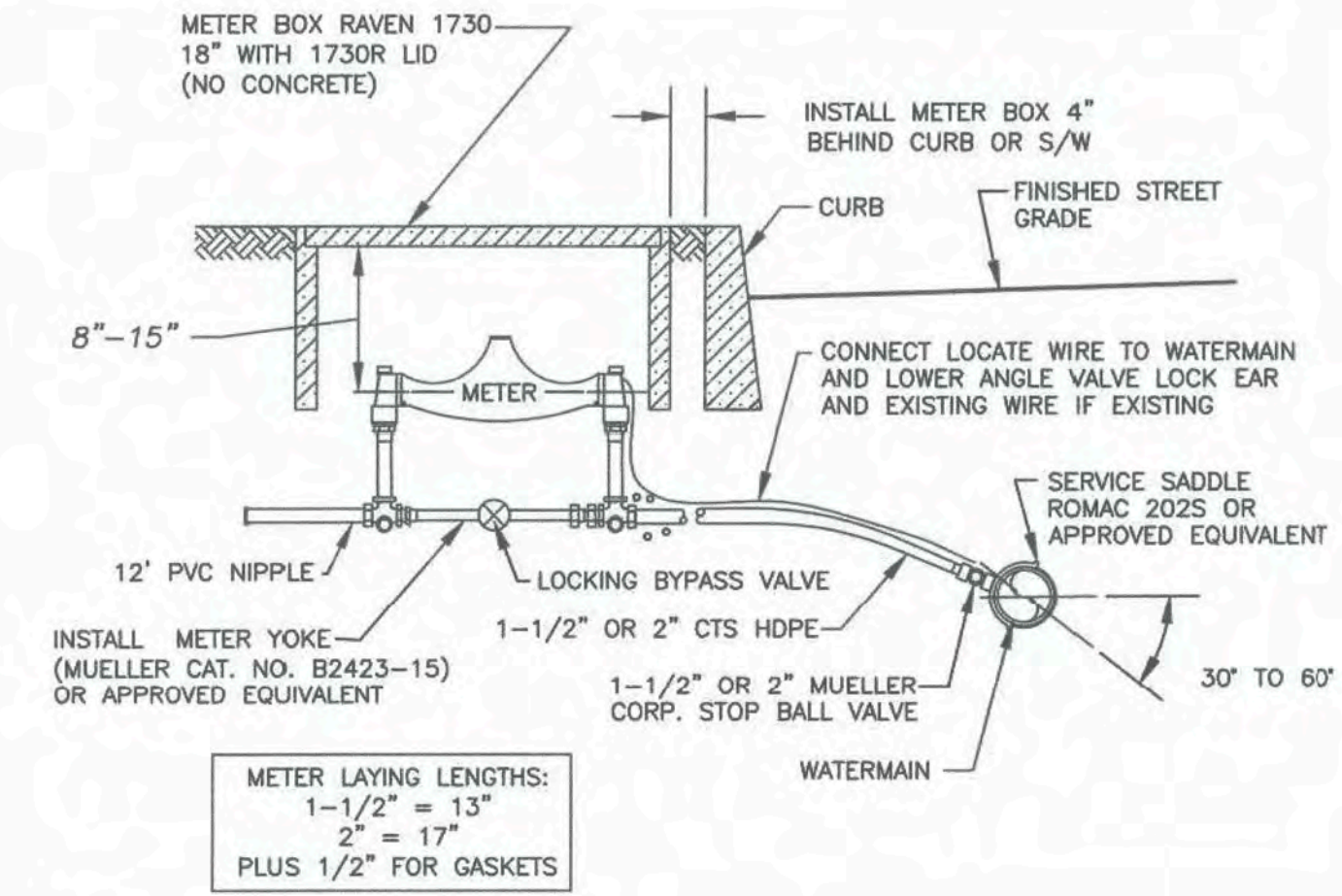
- ALL WORKMANSHIP AND MATERIAL SHALL BE IN ACCORDANCE WITH THE WSDOT/APWA STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION HEREIN IDENTIFIED AS THE "STANDARD SPECIFICATIONS", AND AWWA SPECIFICATIONS, EXCEPT AS MODIFIED BELOW OR BY CITY OF WOODLAND STANDARD DETAILS.
- A PRE-CONSTRUCTION MEETING SHALL BE HELD WITH 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.
- 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.
- CALL UNDERGROUND LOCATE AT 811 A MINIMUM OF 48-HOURS PRIOR TO ANY EXCAVATIONS.
- 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.
- 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.
- WATER MAINS SHALL BE PVC IN ACCORDANCE WITH AWWA C900. MINIMUM DR18 OR DUCTILE IRON PRESSURE CLASS 52 OR AS NOTED ON DRAWING. ALL MATERIAL IN SUBSTANTIAL CONTACT WITH DRINKING WATER MUST CONFORM TO ANSI/NSF STANDARD 61 AND BE LEAD FREE.
- ALL LINES SHALL BE CHLORINATED AND TESTED IN CONFORMANCE WITH THE STANDARD SPECIFICATIONS PRIOR TO USE.
- HARD COPY AND ELECTRONIC "AS-BUILT" DRAWINGS SHALL BE SUBMITTED TO CITY OF WOODLAND UPON COMPLETION OF THE WORK.
- ALL WATERMANS, FIRE HYDRANTS, BLOW OFF ASSEMBLIES, VACUUM BREAKERS, AND WATER SERVICES MUST HAVE LOCATE WIRE INSTALLED.
- ALL MECHANICAL JOINT FITTINGS SHALL BE RESTRAINED USING MJ FOLLOWER GLANDS, MEGALUG, OR EQUAL.

GENERAL NOTES FOR WATER MAIN INSTALL						W-01
APPROVED	REVISIONS	DATE	DRAWN	DESIGNED		
		1-13-22				
PUBLIC WORKS DIRECTOR		DATE				



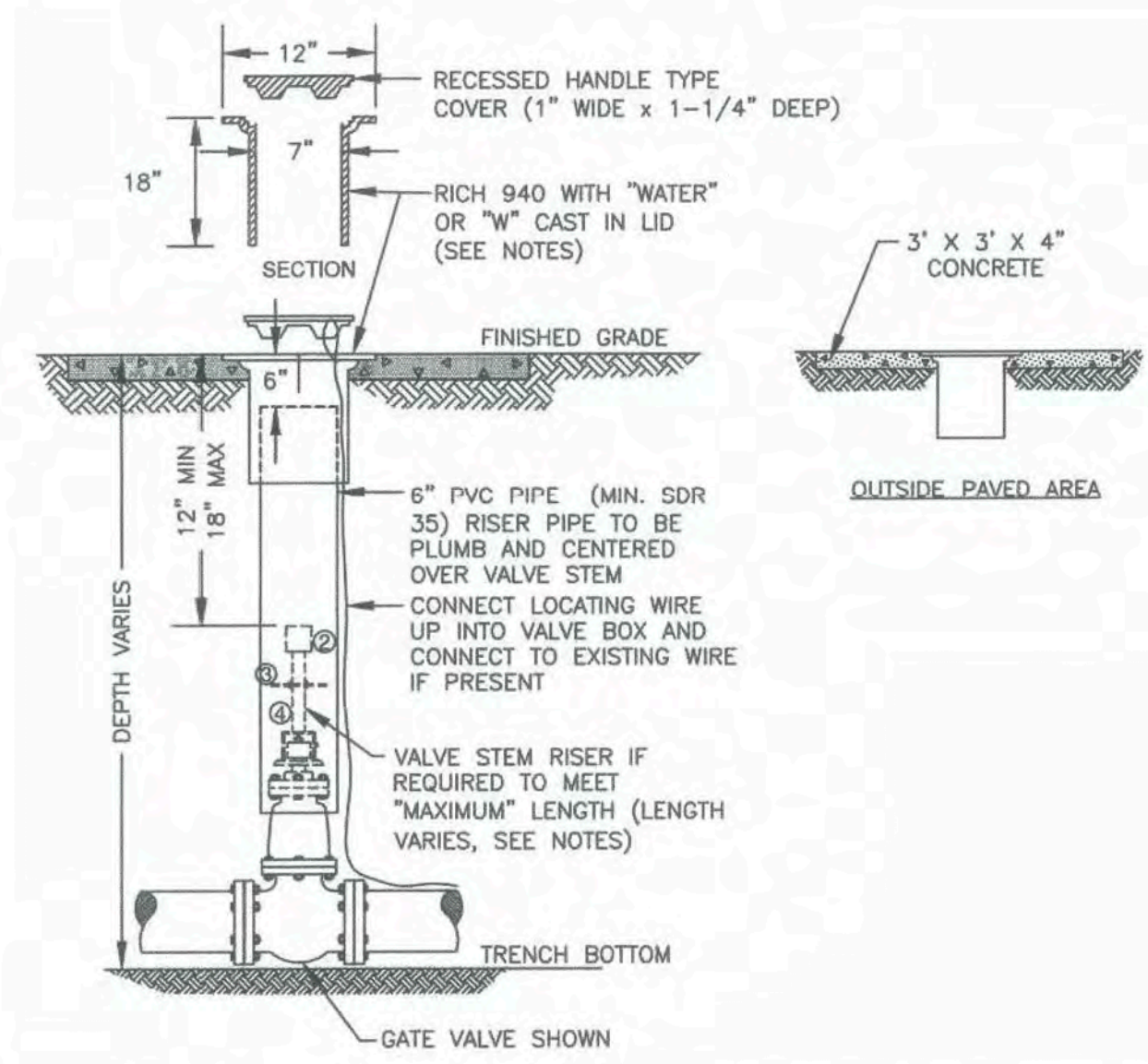
- NOTES:
- SERVICE LINES ON NEW WATERMANS SHALL BE PRESSURE TESTED UP TO THE LOCKING ANGLE BALL VALVE AS PART OF THE WATERMAIN TESTING.
 - METER BOXES SHALL HAVE A 4" WOOD STAKE WITH BLUE PAINT BEHIND THE BOX.
 - ALL DOMESTIC AND IRRIGATION METERS SHALL BE SUPPLIED, OWNED, AND INSTALLED BY THE CITY OF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

3/4" AND 1" WATER SERVICE						W-02
APPROVED	REVISIONS	DATE	DRAWN	DESIGNED		
		1/21/22				
PUBLIC WORKS DIRECTOR		DATE				



- NOTES:
- ALL DOMESTIC AND IRRIGATION METERS SHALL BE SUPPLIED, OWNED, AND INSTALLED BY THE CITY OF WOODLAND.
 - 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.
 - CONTRACTOR SHALL CONTACT THE CITY OF WOODLAND PUBLIC WORKS OFFICE (360) 225-7999 48-HOURS PRIOR TO INSTALLING ANY WATER SERVICE CONNECTIONS.
 - METERS WILL NOT BE SET BY THE CITY PRIOR TO DISINFECTION OF THE MAIN AND SERVICE, AND PRIOR TO A SUCCESSFUL BACTERIOLOGICAL TEST.
 - SERVICE LINES ON NEW WATERMANS SHALL BE PRESSURE TESTED UP TO THE LOCKING ANGLE BALL VALVE AS PART OF THE WATERMAIN TESTING.
 - DURING THE PRESSURE TEST, THE MAIN SHALL BE OPEN FOR INSPECTION OF ALL CORPORATION STOPS.
 - USE 1-7/8" BIT FOR ALL 2" SADDLE TAPS AND 1-3/8" BIT FOR 1-1/2" SADDLE TAPS.
 - 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.
 - 1 1/2" METER CAN BE INSTALLED IN A 2" SETTING WITH ADAPTORS.

1-1/2" AND 2" WATER SERVICE						W-03
APPROVED	REVISIONS	DATE	DRAWN	DESIGNED		
		1/21/22				
PUBLIC WORKS DIRECTOR		DATE				



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

STANDARD VALVE BOX AND COVER						W-06
APPROVED	REVISIONS	DATE	DRAWN	DESIGNED		
		1/21/22				
PUBLIC WORKS DIRECTOR		DATE				

GENERAL NOTES FOR BACKFLOW PROTECTION

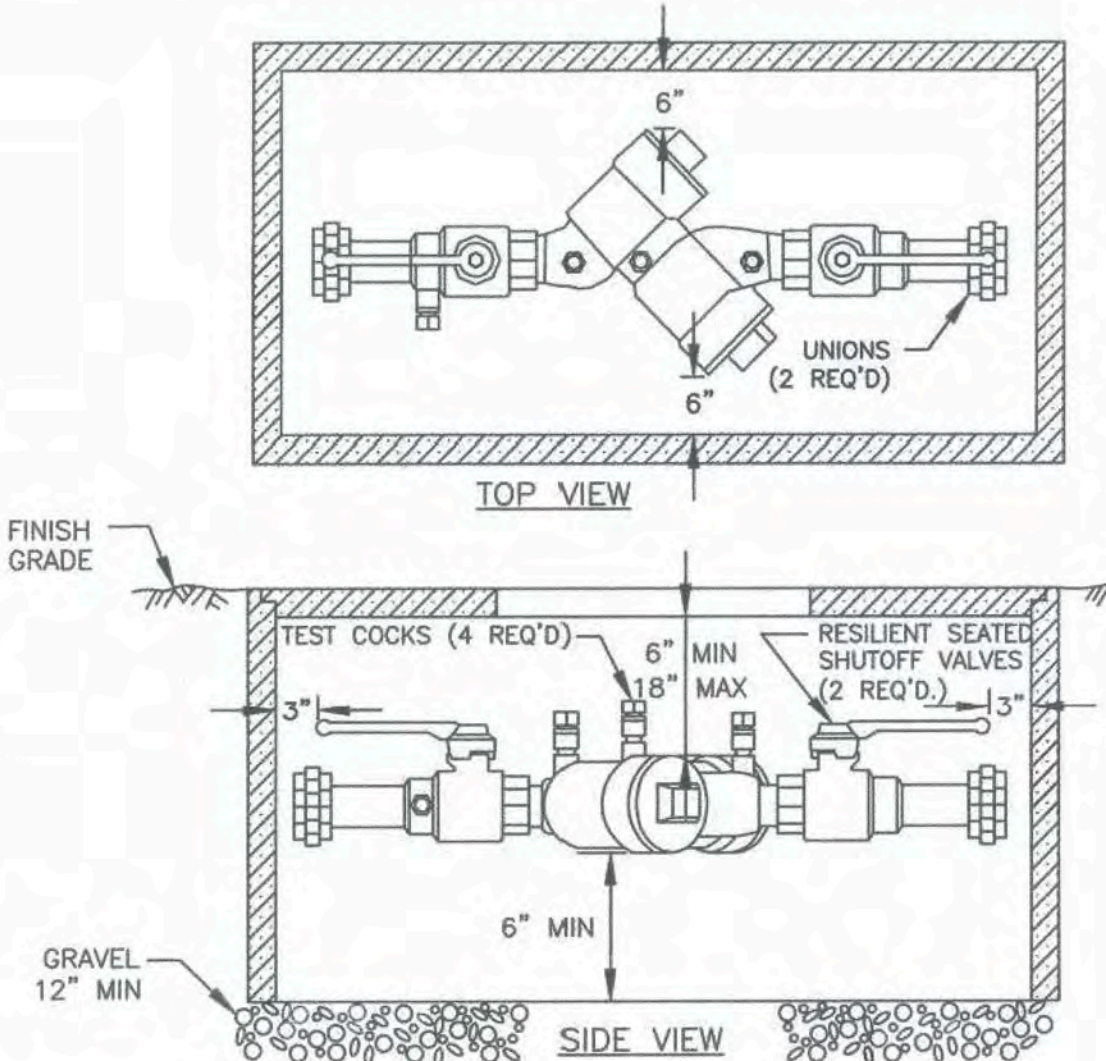
- ALL REDUCED PRESSURE AND BACKFLOW DEVICES SHALL BE WASHINGTON STATE APPROVED, PER WAC 246-290.
- FIRE SPRINKLER AND IRRIGATION SYSTEMS SHALL BE PROTECTED WITH STATE APPROVED BACKFLOW PROTECTION AS PRESCRIBED IN WAC 246-290. IRRIGATION SYSTEMS ARE PROTECTED COMMENSURATE WITH THE DEGREE OF HAZARD AS DEFINED BELOW:
 - HIGH HEALTH HAZARD - IS ASSESSED TO ANY IRRIGATION SYSTEM THAT CONTAINS PUMPS OR INFECTORS FOR THE ADDITION OF CHEMICALS. THIS RISK ASSESSMENT IS ALSO BASED ON THE ADDITIONAL HAZARD POSED BY BACTERIAL CONTAMINANTS FOUND ON LAWNS, AND ON THE POSSIBILITY OF CHANGES BEING MADE TO THE IRRIGATION SYSTEM BY THE CUSTOMER. AN APPROVED REDUCED PRESSURE BACKFLOW ASSEMBLY, OR AN APPROVED AIR GAP SEPARATION SHALL BE REQUIRED IN ALL CASES WHERE MEANS ARE PROVIDED FOR CHEMICALS OR HERBICIDES TO BE INJECTED INTO THE IRRIGATION SYSTEM, OR WHERE AN AUXILIARY SUPPLY IS ALSO PROVIDED FOR IRRIGATION WATER.
 - LOW HEALTH HAZARD - IS ASSESSED TO ALL IRRIGATION SYSTEMS NOT OTHERWISE ASSESSED AS A HIGH HEALTH HAZARD. THIS RISK ASSESSMENT IS BASED ON THE HAZARD POSED BY BACTERIAL AND CHEMICAL CONTAMINANTS FOUND ON LAWNS, AND ON THE POSSIBILITY OF CHANGES BEING MADE TO THE IRRIGATION SYSTEM BY THE CUSTOMER. AN APPROVED DOUBLE CHECK VALVE ASSEMBLY IS REQUIRED.
- ALL COMMERCIAL, INDUSTRIAL AND MULTI-FAMILY FACILITIES SHALL BE PROTECTED WITH WASHINGTON STATE APPROVED BACKFLOW PROTECTION.
- IF CHEMICALS ARE ADDED TO THE FIRE PROTECTION SYSTEM, A REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTER IS REQUIRED.
- IF A WELL IS NOW EXISTING ON-SITE OR IS DRILLED IN THE FUTURE, A REDUCED PRESSURE BACKFLOW ASSEMBLY WILL BE REQUIRED AT EACH METER.
- WHERE A VAULT IS REQUIRED, A GALV. STEEL WALL MOUNTED CHAMBER LADDER W/EXTENSIONS IS REQUIRED AND SHALL BE CENTERED UNDER THE ACCESS DOOR.
- DOUBLE CHECK ASSEMBLIES SHALL BE INSTALLED IN EITHER AN APPROVED VAULT OR INSIDE THE BUILDING IN A MAINTAINABLE LOCATION.
- REDUCED PRESSURE ASSEMBLIES SHALL BE INSTALLED EITHER OUTSIDE ABOVE GROUND OR INSIDE THE BUILDING.
- ALL BACKFLOW DEVICES SHALL BE PROTECTED FROM FREEZING.
- BACKFLOW PREVENTION ASSEMBLY VAULTS (I.E. FIRE AND SERVICE PROTECTION) MUST BE INSTALLED AT THE CUSTOMER'S SIDE OF THE EASEMENT OR PROPERTY LINE. ALTERNATE LOCATIONS MUST BE REQUESTED IN WRITING AND APPROVED BY CITY OF WOODLAND PUBLIC WORKS PRIOR TO INSTALLATION.
- NO PART OF THE BACKFLOW PREVENTION ASSEMBLY SHALL BE SUBMERGED IN WATER OR INSTALLED IN A LOCATION SUBJECT TO FLOODING. IF A BACKFLOW PREVENTION ASSEMBLY IS INSTALLED IN A VAULT OR BASEMENT, ADEQUATE DRAINAGE OR DEWATERING SHALL BE PROVIDED.
- ALL FIRE PROTECTION SERVICES SHALL HAVE A IRON BODY GATE VALVE AT THE PUBLIC MAIN AND SHALL BE PRIVATE AFTER THAT VALVE.
- ALL DOMESTIC SERVICES WITH BACKFLOW PROTECTION SHALL BE PRIVATE AFTER THE DOMESTIC WATER METER.
- ALL BACKFLOW PREVENTION DEVICES SHALL BE TESTED AFTER INSTALLATION PRIOR TO ACCEPTANCE AND ANNUALLY THEREAFTER BY A CERTIFIED BACKFLOW ASSEMBLY TESTER. A PARTIAL LIST OF WASHINGTON STATE APPROVED TESTERS IS AVAILABLE UPON REQUEST. TEST RESULTS SHALL BE SENT TO THE CITY OF WOODLAND PUBLIC WORKS DEPARTMENT.

MAIL TEST RESULTS TO: CITY OF WOODLAND PUBLIC WORKS P.O. BOX 9 WOODLAND, WA 98674

EMAIL TEST RESULTS TO: PWCLERK@CI.WOODLAND.WA.US

FAX TEST RESULTS TO: 360-225-7336

GENERAL NOTES FOR BACKFLOW PROTECTION						W-07
APPROVED	REVISIONS	DATE	DRAWN	DESIGNED		
		1/21/22				
PUBLIC WORKS DIRECTOR		DATE				



- NOTES:
- DOUBLE CHECK VALVE ASSEMBLY (DCVA) SHALL BE APPROVED BY THE STATE OF WASHINGTON. APPROVED DCVA TO BE INSTALLED IN THE ORIENTATION (VERTICAL OR HORIZONTAL) FOR WHICH THEY ARE APPROVED.
 - DCVA MAY BE INSTALLED ABOVE OR BELOW GROUND PROVIDED ALL CLEARANCES ARE MET.
 - DESIGN FOR BACK SIPHONAGE AND BACK PRESSURE.
 - ALL INSTALLATIONS SHALL HAVE TWO UNIONS.
 - TEST COCKS TO EITHER FACE OUTWARDS OR UPWARDS FROM ASSEMBLY.
 - THE WATER LINE SHALL BE DISINFECTED, FLUSHED AND PRESSURE TESTED PRIOR TO INSTALLATION OF THE BACKFLOW ASSEMBLY.
 - DCVA SHALL BE ACCESSIBLE AND PROTECTED FROM FREEZING AND FLOODING.
 - A PLUMBING PERMIT IS REQUIRED, CONTACT THE WOODLAND BUILDING DEPARTMENT AT (360) 225-7299.
 - DCVA SHALL BE TESTED AFTER INSTALLATION, THEN ANNUALLY BY A WASHINGTON STATE CERTIFIED BACKFLOW TESTER. DCVA SHALL BE RETESTED IF MOVED OR REPAIRED. RESULTS SHALL BE SUBMITTED TO THE CITY OF WOODLAND PUBLIC WORKS DEPARTMENT.

DOUBLE CHECK VALVE ASSEMBLY 2" & SMALLER						W-08A
APPROVED	REVISIONS	DATE	DRAWN	DESIGNED		
		1/21/22				
PUBLIC WORKS DIRECTOR		DATE				

City of Woodland Standard Water Details For:

Dawkins Warehouse

A Site Located in the City of Woodland, Washington

Engineering - Surveying - Planning - 604 W. Evergreen Blvd., Vancouver, WA 98660 | PH (360) 944-6519 | Fax (360) 944-6539

PLS ENGINEERING

Revisions	1	2	3	4	5	6

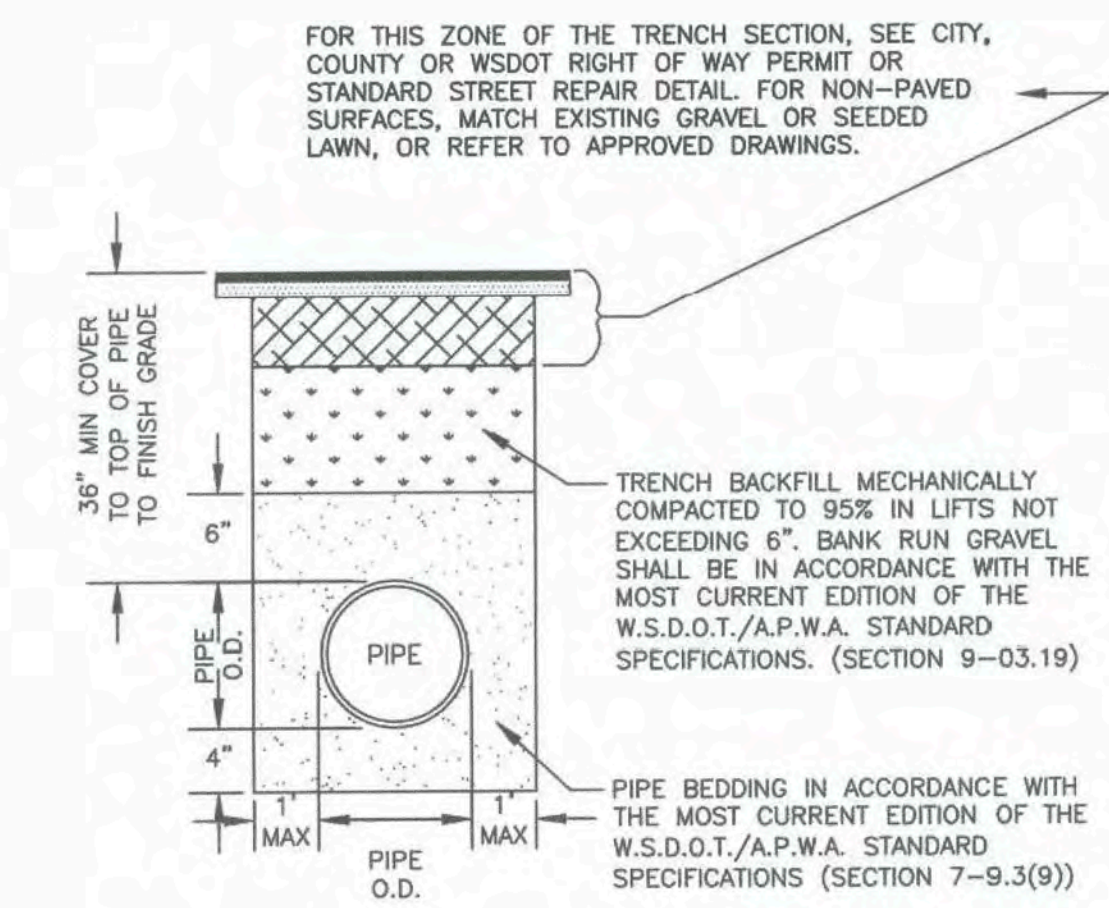
Project No. 3405

SCALE: H: N/A
V: N/A

DESIGNED BY: TJL
DRAFTED BY: TJL
REVIEWED BY: AJG

13

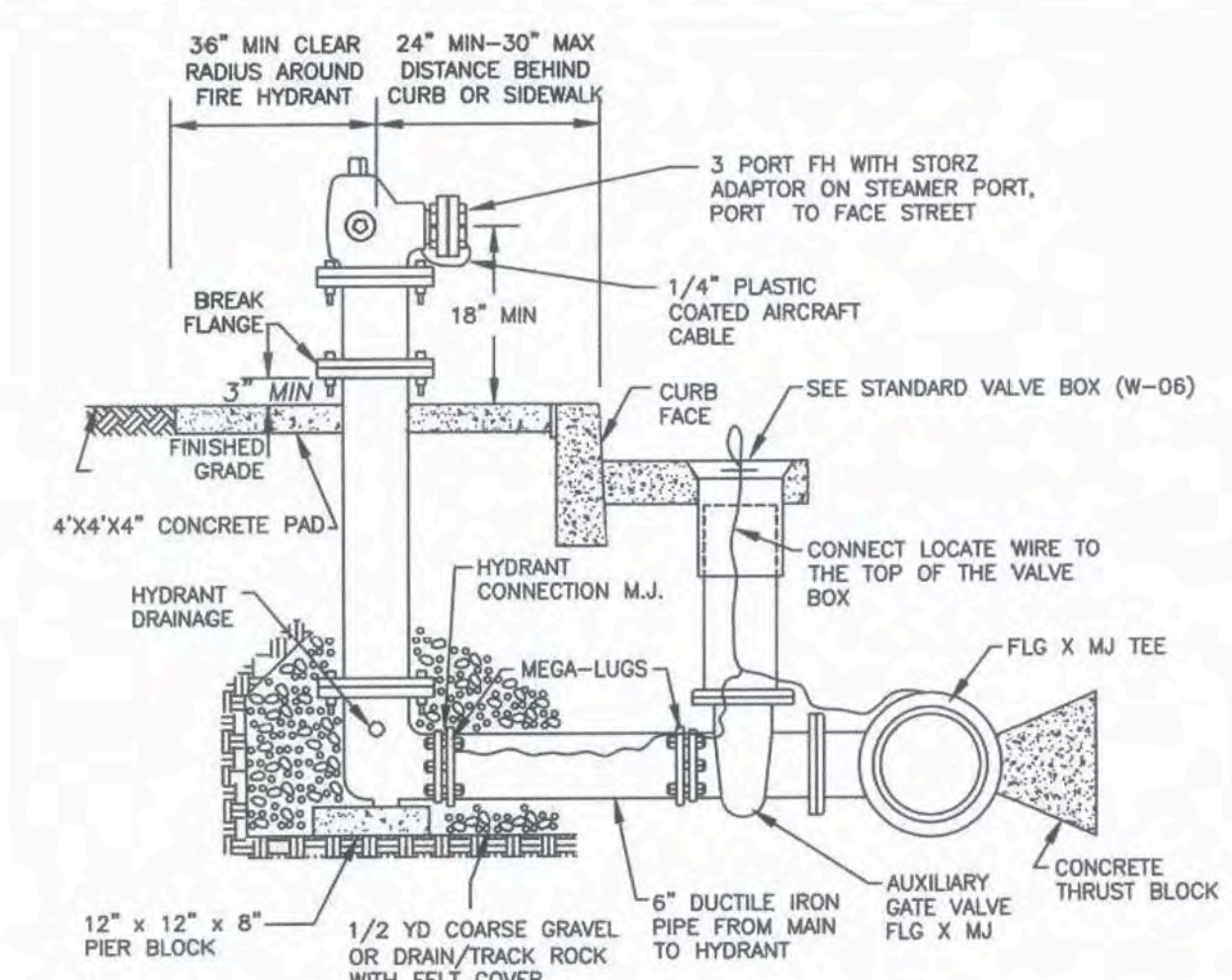
15



- NOTE:
- 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>		1/2/12			
PUBLIC WORKS DIRECTOR		DATE			



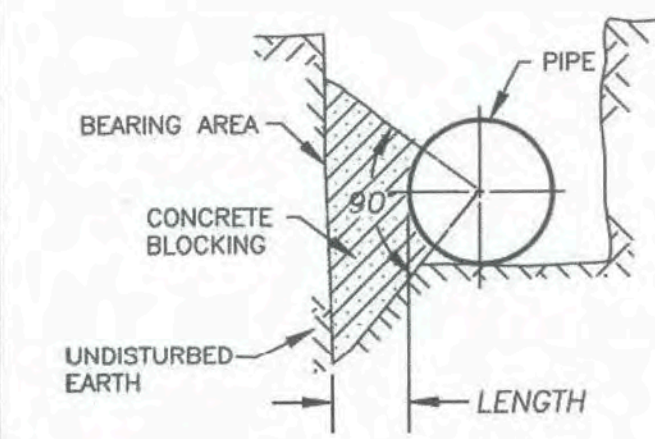
- NOTES:
- IN GENERAL, FIRE HYDRANT LOCATIONS SHALL BE AS SHOWN ON THE PLANS AND SHALL CONFORM TO THIS DETAIL. FIRE HYDRANTS SHALL NOT BE SET UNTIL LOCATION AND DEPTH ARE APPROVED BY THE CITY OF WOODLAND PUBLIC WORKS DEPARTMENT.
 - FIRE HYDRANT INSTALLATION SHALL BE APPROVED BY THE CITY OF WOODLAND PUBLIC WORKS DEPARTMENT PRIOR TO BACKFILLING.
 - HYDRANT TO BE WATEROUS WB67 CLASS 250.
 - 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.
 - THE FIRE HYDRANT SHALL BE INSTALLED SO THAT IT IS PLUMB IN ALL DIRECTIONS.
 - FOUR (4) GUARD POSTS TO BE INSTALLED IN UNPROTECTED AREAS (4' RADIUS).
 - FIRE HYDRANTS SHALL BE FACTORY PAINTED OR QUALITY FIELD PAINTED WITH RODDA SILICONE ALKYL ENAMEL HEAVY DUTY GLOSS SAFETY YELLOW 7-32616-1 TO NEW CONDITION.
 - HYDRANT STANDARD BURY IS 4' UNLESS OTHERWISE NOTED ON THE PLANS, OR WHEN BREAKAWAY JOINT IS INSTALLED 7" ABOVE FINISHED GRADE.
 - ALL JOINTS SHALL BE RESTRAINED UTILIZING MECHANICAL RESTRAIN SYSTEMS. CONCRETE THRUST BLOCKS SHALL NOT BE ALLOWED.
 - STORZ ADAPTORS ARE REQUIRED.
 - INSTALL LOCATING WIRE AND CONNECT TO EXISTING WIRE IF PRESENT.

FIRE HYDRANT

APPROVED	REVISIONS	DATE	DRAWN	DESIGNED	W-14
<i>[Signature]</i>		1/2/12			
PUBLIC WORKS DIRECTOR		DATE			

SOIL BEARING = 2000 LB/S.F.

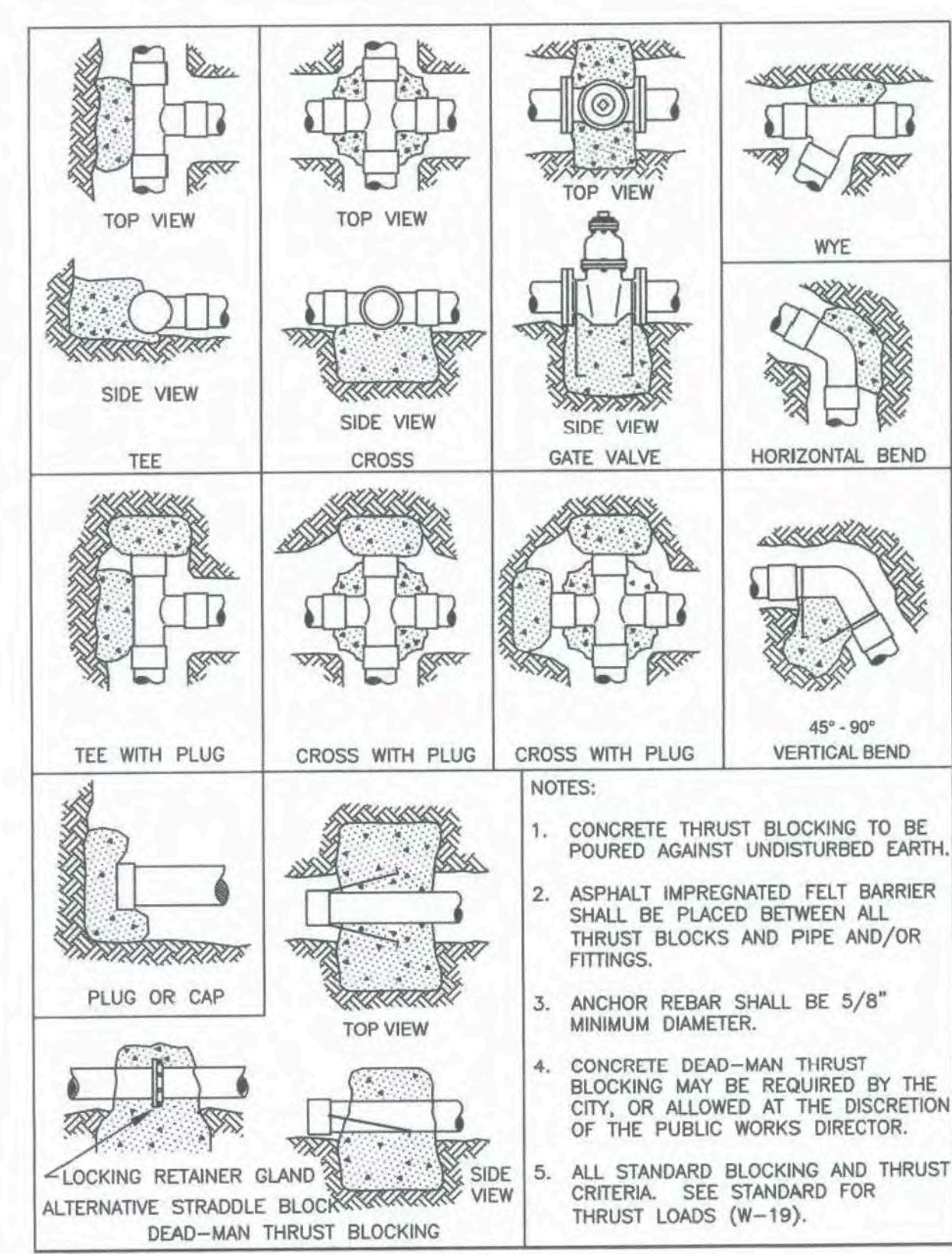
PIPE SIZE	HORZ. BENDS	MIN. BEARING AREA S.F.	MIN. VOL. OF BLOCKING C.F.	MIN. LENGTH OF BLOCKING
4"	TEE	2.3	0.8	0.86
	90°	3.2	1.4	1.06
	45°	1.7	0.5	0.73
	22-1/2°	0.9	0.2	0.46
6"	TEE	4.7	2.4	1.24
	90°	6.6	4.0	1.53
	45°	3.6	1.8	1.06
	22-1/2°	1.9	0.8	0.66
8"	TEE	8.0	5.4	2.63
	90°	11.4	9.0	4.00
	45°	6.2	3.6	1.87
	22-1/2°	3.1	1.3	0.87
10"	TEE	12.1	9.9	2.00
	90°	17.1	16.7	2.83
	45°	9.3	6.6	1.69
	22-1/2°	4.7	2.4	1.08
12"	TEE	17.1	16.7	2.37
	90°	24.2	29.0	2.93
	45°	13.1	11.2	2.01
	22-1/2°	6.7	4.1	1.28
16"	TEE	23.8	27.3	2.73
	90°	33.1	46.0	3.37
	45°	18.2	18.3	2.29
	22-1/2°	9.3	5.7	1.42
18"	TEE	29.9	38.5	3.05
	90°	42.2	64.7	3.79
	45°	22.9	25.8	2.57
	22-1/2°	11.7	9.4	1.80
24"	TEE	52.3	89.1	4.03
	90°	74.0	146.8	5.00
	45°	40.0	59.7	3.55
	22-1/2°	20.4	21.7	2.11
11-1/4"	10.3	7.7	1.18	



- NOTES:
- ALL BLOCKING SHALL BE POURED AGAINST FIRM UNDISTURBED SOIL.
 - 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.
 - LAYOUT TO BE APPROVED BY THE INSPECTOR PRIOR TO AND AFTER CONCRETE POUR.
 - CONCRETE FOR ALL BLOCKING SHALL HAVE A 28-DAY MINIMUM COMPRESSIVE STRENGTH OF 2,300 P.S.I.
 - THIS CHART IS NOT APPLICABLE TO VERTICAL BENDS. LOCATION SPECIFIC DESIGN IS REQUIRED FOR SUCH INSTALLATIONS.
 - 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>		1/2/12			
PUBLIC WORKS DIRECTOR		DATE			



- NOTES:
- CONCRETE THRUST BLOCKING TO BE POURED AGAINST UNDISTURBED EARTH.
 - ASPHALT IMPREGNATED FELT BARRIER SHALL BE PLACED BETWEEN ALL THRUST BLOCKS AND PIPE AND/OR FITTINGS.
 - ANCHOR REBAR SHALL BE 5/8" MINIMUM DIAMETER.
 - CONCRETE DEAD-MAN THRUST BLOCKING MAY BE REQUIRED BY THE CITY, OR ALLOWED AT THE DISCRETION OF THE PUBLIC WORKS DIRECTOR.
 - ALL STANDARD BLOCKING AND THRUST CRITERIA. SEE STANDARD FOR THRUST LOADS (W-19).

THRUST BLOCKING

APPROVED	REVISIONS	DATE	DRAWN	DESIGNED	W-18
<i>[Signature]</i>		1/2/12			
PUBLIC WORKS DIRECTOR		DATE			

THRUST LOADS

THRUST AT FITTINGS IN POUNDS AT 200 POUNDS PER SQUARE INCH OF WATER PRESSURE

PIPE DIAMETER	90° BEND	45° BEND	22-1/2° BEND	11-1/4° BEND	DEAD END OR TEE
4"	3,600	2,000	1,000	500	2,600
6"	8,000	4,400	2,300	1,200	5,700
8"	14,300	7,700	4,000	2,000	10,100
10"	22,300	12,100	6,200	3,100	15,800
12"	32,000	17,400	8,900	4,500	22,700
14"	43,600	23,800	12,100	6,100	30,800
16"	57,000	30,800	15,700	7,900	40,300

- NOTES:
- BLOCKING SHALL BE COMMERCIAL CONCRETE POURED IN PLACE AGAINST UNDISTURBED EARTH. FITTING SHALL BE ISOLATED FROM CONCRETE THRUST BLOCK WITH ASPHALT IMPREGNATED FELT OR SIMILAR MATERIAL.
 - TO DETERMINE THE BEARING AREA OF THE THRUST BLOCK IN SQUARE FEET (S.F.): EXAMPLE : 12" - 90° BEND IN SAND AND GRAVEL 32,000 LBS 3000 LB/S.F. = 10.7 S.F. OF AREA
 - AREAS MUST BE ADJUSTED FOR OTHER PIPE SIZE, PRESSURES AND SOIL CONDITIONS.
 - BLOCKING SHALL BE ADEQUATE TO WITHSTAND FULL TEST PRESSURE AS WELL AS TO CONTINUOUSLY WITHSTAND OPERATING PRESSURE UNDER ALL CONDITIONS OF SERVICE.

SAFE SOIL BEARING LOADS

FOR HORIZONTAL THRUSTS WHEN THE DEPTH OF COVER OVER THE PIPE EXCEEDS 2 FEET

SOIL	POUNDS PER SQUARE FOOT
MUCK, PEAT	0
SOFT CLAY	1,000
SAND	2,000
SAND & GRAVEL	3,000
SAND & GRAVEL CEMENTED WITH CLAY	4,000
HARD SHALE	10,000

THRUST LOADS

APPROVED	REVISIONS	DATE	DRAWN	DESIGNED	W-19
<i>[Signature]</i>		1/2/12			
PUBLIC WORKS DIRECTOR		DATE			

Standard Abbreviations

AB ANCHOR BOLT	H HIGH, HORIZONTAL	S SOUTH
AC ASPHALTIC CONCRETE, ACOUSTIC	HB HOSE BIB	SCH SCHEDULE
ADJ ADJUSTABLE	HDPE HIGH DENSITY POLYETHYLENE	SEC SECOND
AL ALUMINUM	HDA HAND-OFF-AUTO	SHT SHEET
ALT ALTERNATE	HP HORSEPOWER	SIM SIMILAR
AMB AMBIENT	HT HEIGHT	SOLN SOLUTION
APPROX APPROXIMATELY	HZ HERTZ (CYCLES PER SECOND)	SPEC SPECIFICATION
ASSY ASSEMBLY	ID INSIDE DIAMETER	SQ SQUARE
AUTO AUTOMATIC	IPS IRON PIPE SIZE	SS SANITARY SEWER, SOLID
AUX AUXILIARY	JB JUNCTION BOX	SST STAINLESS STEEL
BF BLIND FLANGE	JT JOINT	STA STATION
BLDG BUILDING	LB POUND(S)	STD STANDARD, STUD
BV BALL VALVE	LVR LOWER	STL STEEL
CB CATCH BASIN	LW LOCATE WIRE	STRUCT STRUCTURAL
CDF CONTROL DENSITY FILL	MAG MAGNETIC	T TRAP, TOP, TANGENT
CEM CEMENT	MAINT MAINTENANCE	TB TERMINAL BOX, TOP & BOTTOM
CFM CUBIC FEET PER MINUTE	MAT'L MATERIAL	T/B TOP OF BANK
CJ CONSTRUCTION JT	MAX MAXIMUM	TC TOP OF CURB/CONCRETE
CL CENTERLINE	MCC MOTOR CONTROL CENTER	TDH TOTAL DYNAMIC HEAD
CLR CLEAR	MIN MINIMUM, MINUTE	TESCP TEMPORARY EROSION AND SEDIMENTATION CONTROL PLAN
CO CLEANOUT	MJ MECHANICAL JOINT	THR THRED(ED)
COMB COMBINATION	N NEUTRAL, NORTH	TOP OF WALL
CONC CONCRETE, CONCRETING	NC NORTH EAST	TRANS TRANSITION
CPLG COUPLING	NEG NEGATIVE	TS TOP OF SLAB/SLOPE
CSTC CRUSHED SURFACING TOP COURSE	NO NORMALLY OPEN, NUMBER	TYP TYPICAL
CTR CENTER	NP SH NET POSITIVE SUCTION HEAD	UG UNDERGROUND
CTS COPPER TUBE SIZE	NRS NONRISING STEM	UH UNIT HEATER
CSBC CRUSHED SURFACING BASE COURSE	NTS NOT TO SCALE	U/P UTILITY POLE
D DRAIN, DECAINT	OD OUTSIDE DIAMETER	VAC VACUUM, VOLTS ALTERNATING CURRENT
DI DUCTILE IRON	OH OVER HEAD	VAR VARIES, VARIABLE
DIA, Ø DIAMETER	OPNG OPENING	VC VERTICAL CURVE
DWG(S) DWG(S)	PE PLAIN END, POLYETHYLENE	VERT VERTICAL
E EAST	PEN PENETRATION	VTR VENT THROUGH ROOF
EA EXHAUST AIR, EACH	PH PHASE	W WEST, WATER
ECC ECCENTRIC	PL PROPERTY LINE	W/ WITH
ELEV. ELEVATION (ELEV)	PLCS PLACES	W/O WITHOUT
ELECT ELECTRICAL	PLY PLYWOOD	WSDOT WASHINGTON STATE DEPARTMENT OF TRANSPORTATION
E.O.P. EDGE OF PAVEMENT	PP POWER POLE	WSEL WATER SURFACE ELEVATION
EQUIP EQUIPMENT	PRES PRESSURE	WT WATERRIGHT, WEIGHT
EQUIV EQUIVALENT	PRV PRESSURE REDUCING (RELIEF) VALVE	WFW WELDED WIRE FABRIC
EX EXISTING	PS PRESSURE SWITCH, PRESSURE SENSOR	XFMR POWER TRANSFORMER
EXH EXHAUST	PSI POUNDS PER SQUARE INCH	XP EXPLOSION PROOF
EXP EXPANSION, EXPOSED	PVC POLYVINYL CHLORIDE	# NUMBER, POUNDS AND
EXT EXTERIOR	PVMT PAVEMENT	AT AT
FF FINISH FLOOR	R RADIUS, RISER	Ø DIAMETER, PHASE
FLX FLEXIBLE	R/C REINFORCED CONCRETE	
FLG FLANGE	RD ROOF DRAIN, ROAD	
FLR FLOOR	RED REDUCED(R)	
GALV GALVANIZED	REINF REINFORCED	
GPD GALLONS PER DAY	REQ'D REQUIRED	
GPM GALLONS PER MINUTE	RPM REVOLUTIONS PER MINUTE	
GV GATE VALVE	R/W RIGHT OF WAY	

STANDARD ABBREVIATIONS

APPROVED	REVISIONS	DATE	DRAWN	DESIGNED	W-23
<i>[Signature]</i>		1/2/12			
PUBLIC WORKS DIRECTOR		DATE			

GENERAL NOTES 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, HEREINAFTER 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 HEREIN 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 (360) 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 "811".

FINAL ACCEPTANCE OF SANITARY SEWERS ARE SUBJECT TO SECTIONS 1-05.11, 1-05.12, 7-17.3(2), 7-17.3(2)F, 7-17.3(2)G AND 7-17.3(2)H OF THE STANDARD SPECIFICATIONS. TELEVISION INSPECTION SHALL INCLUDE VIDEO OF ALL MANHOLES IN ADDITION TO THE PIPE. THE CONTRACTOR SHALL WARRANTY ALL WORK DONE 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. "BELLIES") MUST BE NO MORE THAN 1/2" MAXIMUM. VARIATIONS IN EXCESS 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. POLYVINYL CHLORIDE (PVC) SEWER PIPE 15" DIAMETER OR LESS SHALL CONFORM TO ASTM D3034, SDR 35. IT SHALL HAVE A MINIMUM PIPE STIFFNESS OF 46 PSI. PVC PIPE 18" DIAMETER SHALL CONFORM TO ASTM F 679. ALL PVC PIPE SHALL HAVE AN INTEGRAL 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 ANSI A21.51 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.

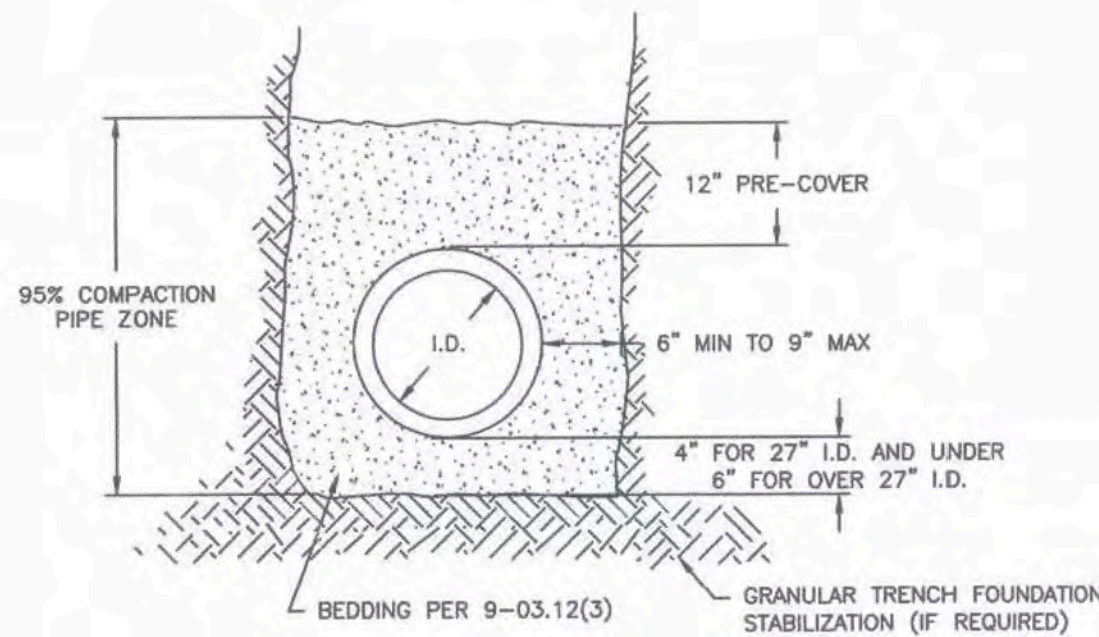
MANHOLES, CLEANOUTS, SERVICE LATERAL CONNECTIONS, TRENCH EXCAVATION, PIPE BEDDING AND STREET RESTORATION, AND APPURTENANCES SHALL CONFORM TO THE CITY OF WOODLAND STANDARD PLANS, THE WSDOT STANDARD DETAILS CONTAINED AND THE STANDARD PLANS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION.

THE CONTRACTOR SHALL COMPLY WITH THE PROVISIONS OF ALL PERMITS ISSUED OR EASEMENTS GRANTED TO THE CITY IN CONJUNCTION 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.

GENERAL NOTES FOR SANITARY SEWER

APPROVED	REVISIONS	DATE	DRAWN	DESIGNED	S-01
PUBLIC WORKS DIRECTOR					

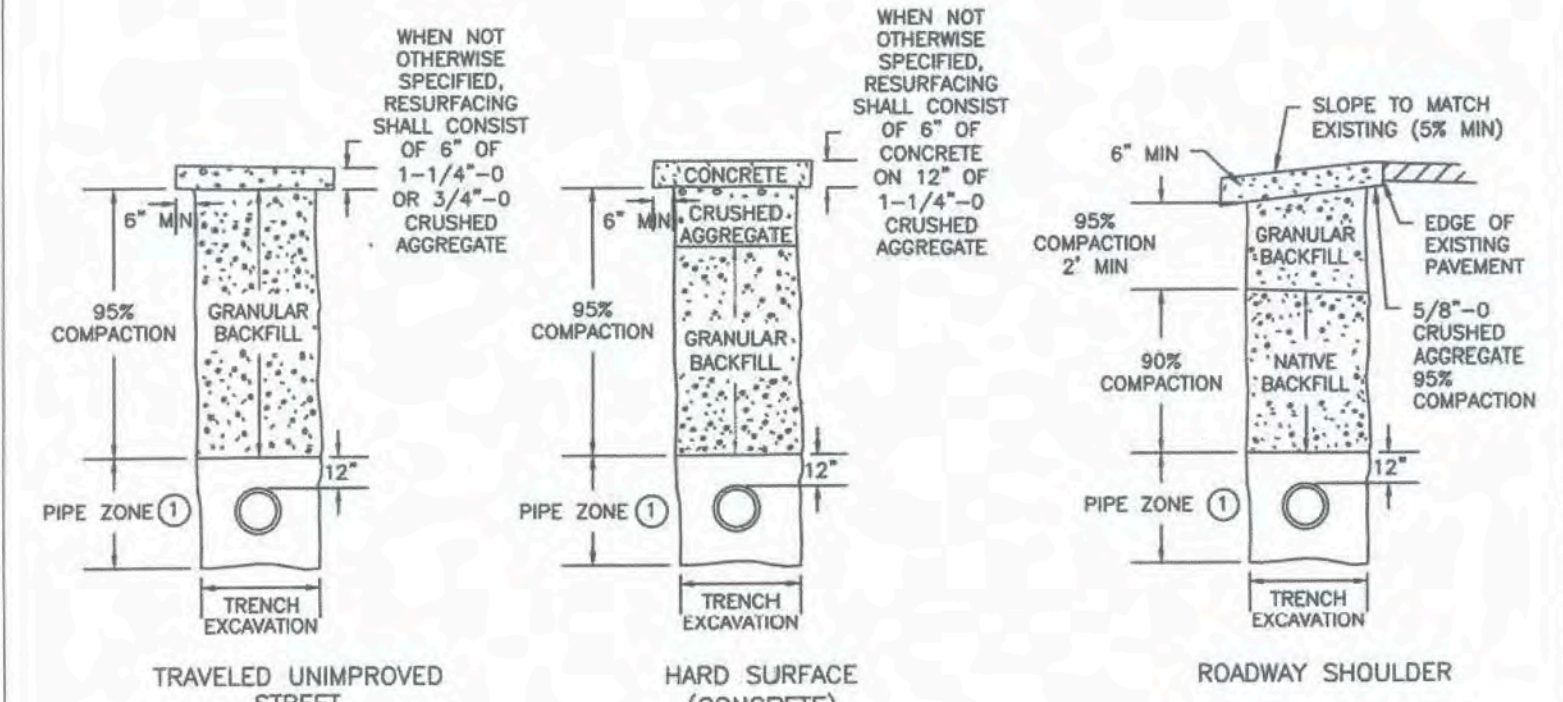


NOTES:

- 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 REFILLED WITH GRANULAR MATERIALS AS DIRECTED BY THE ENGINEER.
- BACKFILL AND COMPACTON 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. UNI-B-5 (LATEST EDITION) EXCEPT AS NOTED.
- FINAL INSTALLATION TO BE TESTED PER SECTION 7-17.3 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, CRUSHER SCREENINGS, 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 SUBSIDENCE OF SURROUNDING PAVEMENT DUE TO TRENCHING SHALL BE EXCAVATED BEYOND ORIGINAL PAVEMENT 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 IMPORTED MATERIAL FOR BEDDING SPECIFIED, PROVIDED THAT THE NATIVE MATERIAL CONFORMS TO SECTION 9-03.15 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.

PIPE BEDDING

APPROVED	REVISIONS	DATE	DRAWN	DESIGNED	S-02
PUBLIC WORKS DIRECTOR					

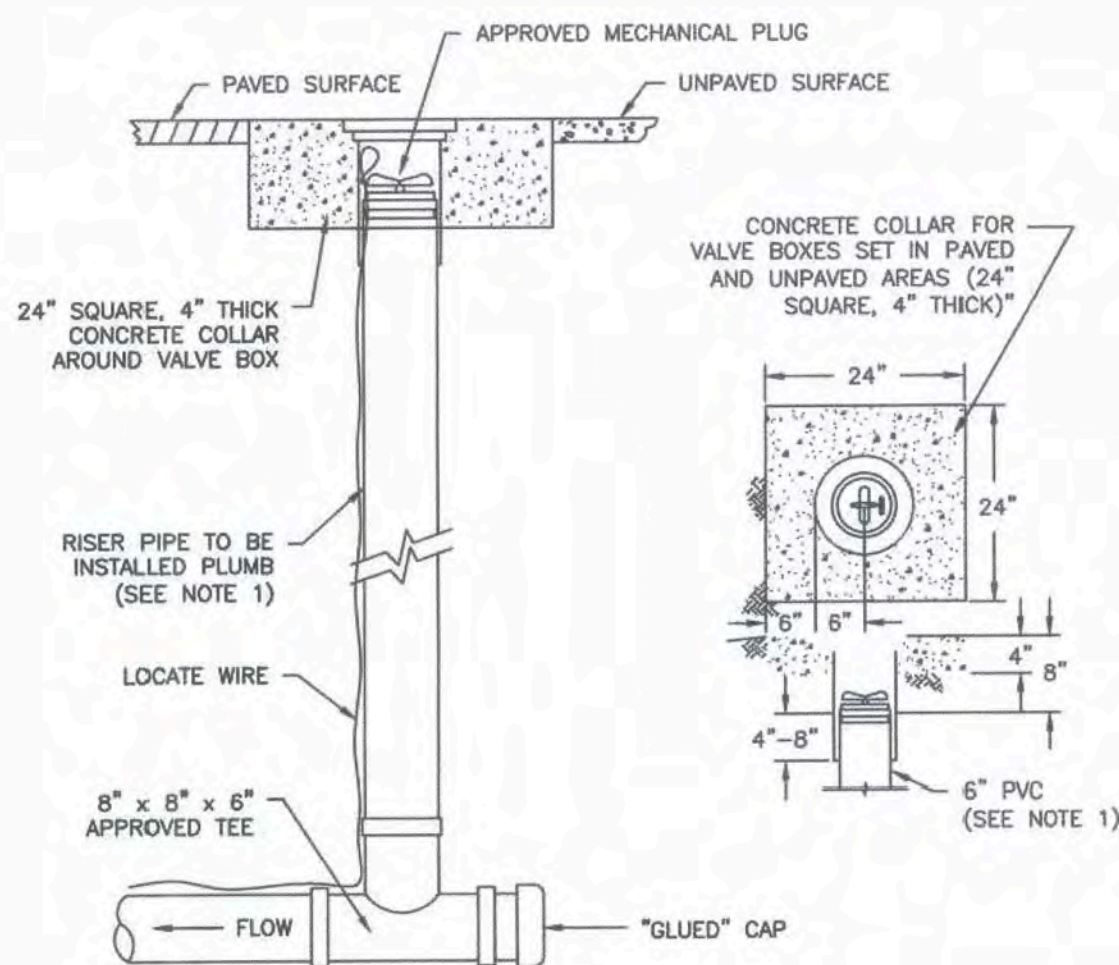


NOTES:

- FOR PIPE ZONE BEDDING, BACKFILL AND COMPACTON REQUIREMENTS, SEE PIPE BEDDING DETAIL S-02.
- COMPACTON PERCENTAGES REFER TO RELATIVE DRY DENSITY AS DETERMINED BY STANDARD PROCTOR (ASTM D 698)
- CONTRACTOR MAY USE UP TO 2-1/2" OF 5/8"-0 OR 3/4"-0 CRUSHED AGGREGATE IN LIEU OF 1-1/4"-0 BASE ROCK UNDER SURFACING FOR LEVELING COURSE.
- ALL EXISTING PAVED SURFACES SHALL BE SAW CUT A MINIMUM OF 6" OUTSIDE OF EDGE OF TRENCH TO PROVIDE A NEAT STRAIGHT EDGE.
- THE EDGES OF ALL EXISTING ASPHALT SURFACES SHALL BE CLEANED AND A TACK COAT SHALL BE APPLIED PER STD. SECTION S-04.3(5). ALL JOINTS SHALL BE SEALED WITH TACK AND SANDED.
- ALL BACKFILL SHALL BE MECHANICALLY COMPACTED IN LIFTS WHICH DO NOT EXCEED RATED CAPABILITY OF EQUIPMENT USED, BUT IN NO CASE EXCEED 12" LOOSE.
- GRANULAR BACKFILL SHALL MEET REQUIREMENTS OF SECTION 9-03.10 UNLESS OTHERWISE SPECIFIED.

TRENCH: RESTORE, BACKFILL, BEDDING, SURFACING

APPROVED	REVISIONS	DATE	DRAWN	DESIGNED	S-03
PUBLIC WORKS DIRECTOR					

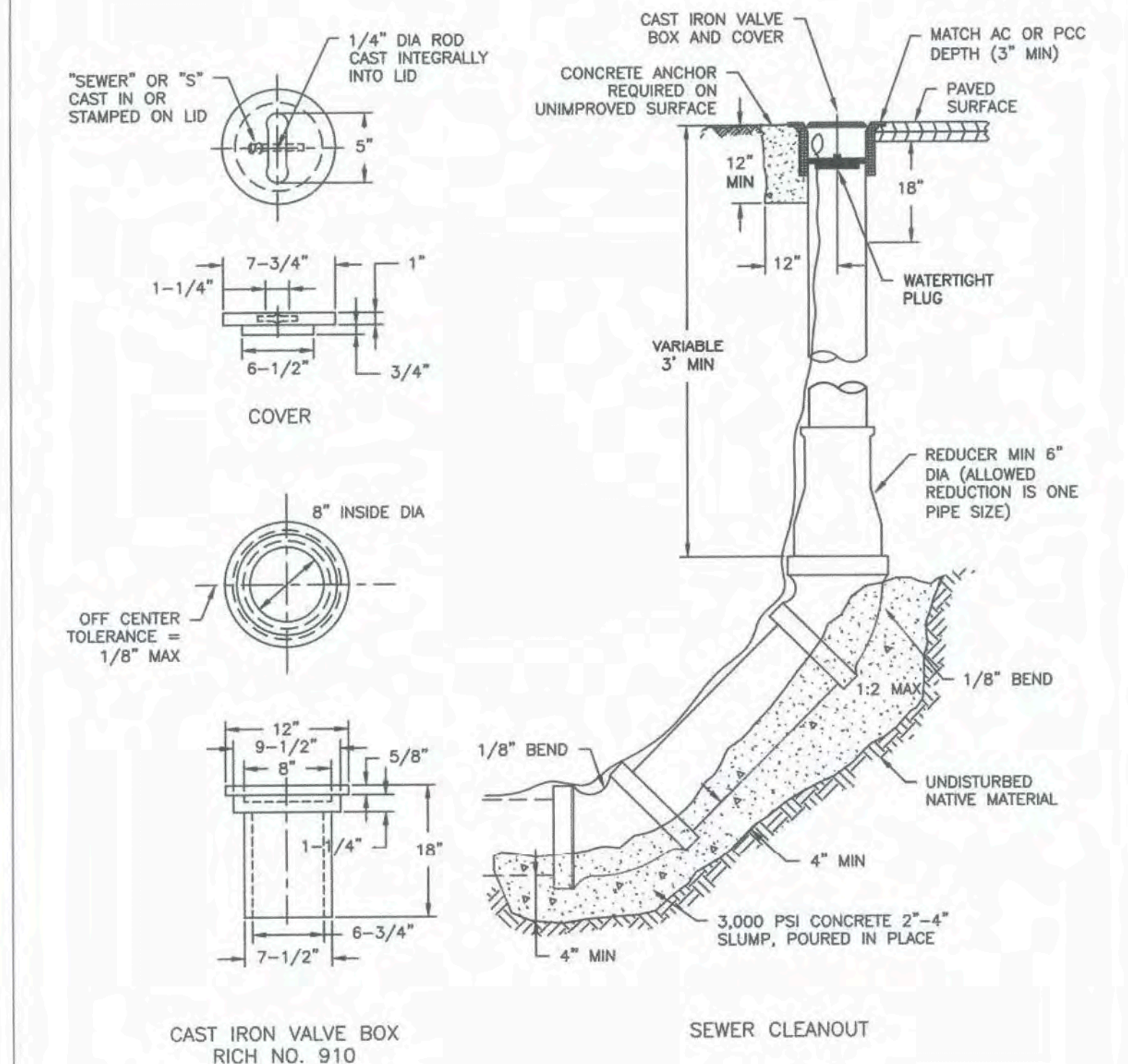


NOTES:

- RISER PIPE SHALL BE 6" ASTM D 3034 SDR 35 PVC PIPE.
- VALVE BOX SHALL BE "RICH 910" CAST IRON, SEE SEWER CLEANOUT DETAIL S-16 OR APPROVED EQUAL.
- THERE SHALL BE 1/2" CLEARANCE UNDER THE PIN CAST INTO THE LID.
- CONCRETE COLLAR SHALL BE A MINIMUM STRENGTH OF 3,000 PSI.
- PIPE BEDDING SHALL CONFORM TO PIPE BEDDING DETAIL S-02.
- INSTALL AT EVERY SANITARY SEWER MAIN TERMINATION OUTSIDE THE RIGHT-OF-WAY.

SANITARY STUB MARKER

APPROVED	REVISIONS	DATE	DRAWN	DESIGNED	S-15
PUBLIC WORKS DIRECTOR					



CAST IRON VALVE BOX RICH NO. 910

SEWER CLEANOUT

SEWER CLEANOUT

APPROVED	REVISIONS	DATE	DRAWN	DESIGNED	S-16
PUBLIC WORKS DIRECTOR					

City of Woodland Standard Sewer Details For:

Dawkins Warehouse
 A Site Located in the City of Woodland, Washington

Engineering - Surveying - Planning | 604 W. Evergreen Blvd., Vancouver, WA 98660 | PH (360) 944-6519 | Fax (360) 944-6539

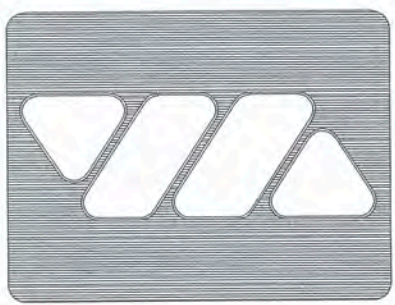
PLS ENGINEERING

Revisions

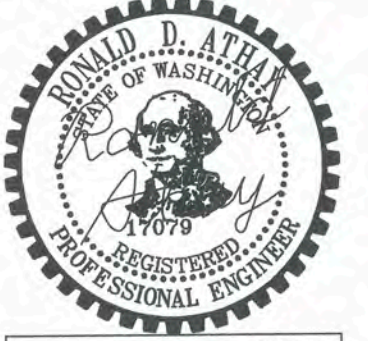
1	2	3	4	5	6
---	---	---	---	---	---

Project No.	3405
SCALE:	H: N/A V: N/A
DESIGNED BY:	TJL
DRAFTED BY:	TJL
REVIEWED BY:	AJG

15
15

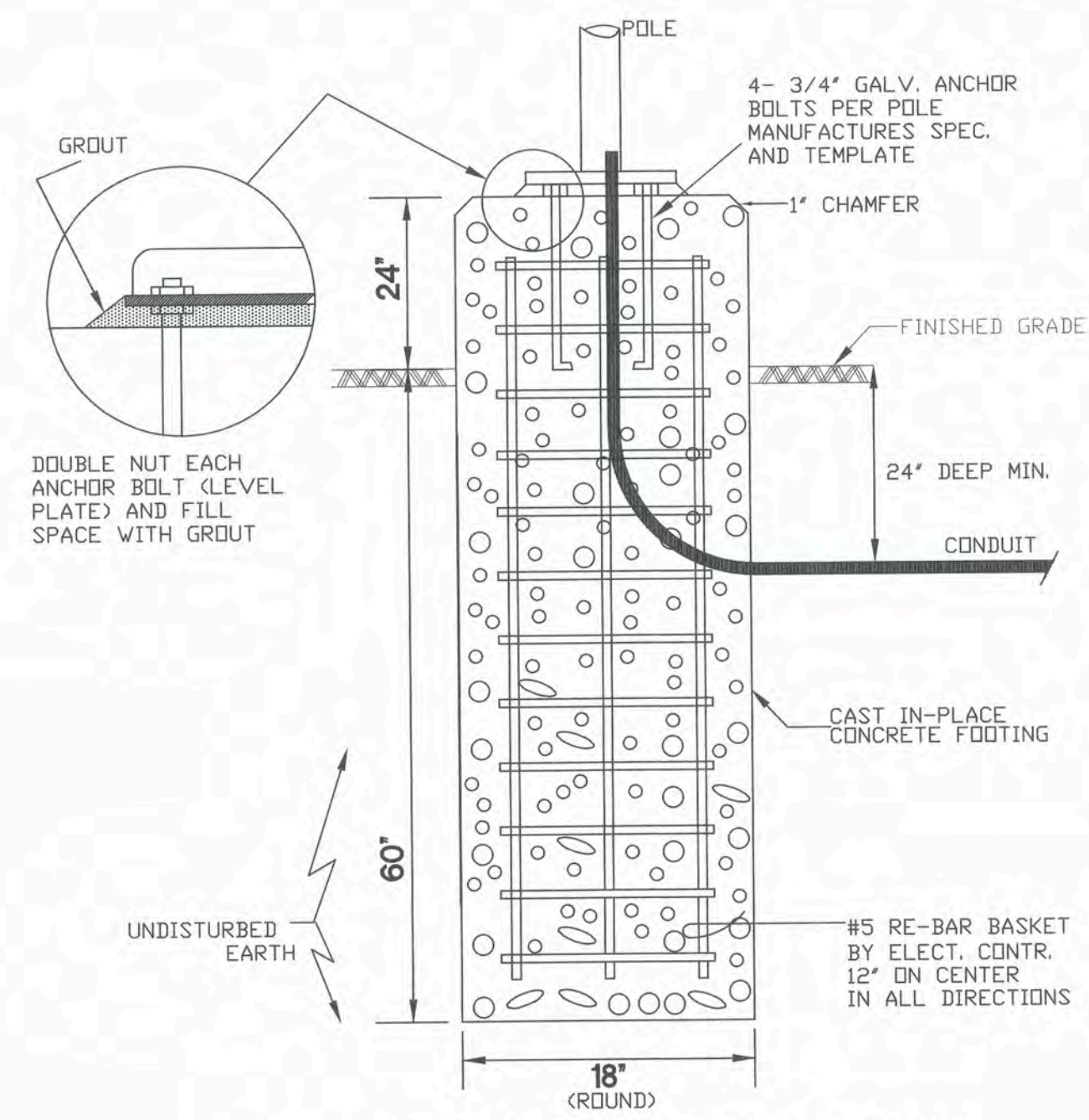


WILSON ASSOCIATES
ARCHITECTS
& PLANNERS AIA
404 E 15th ST #7
VANCOUVER WA
98663
(360) 696-4722



EXPIRES APRIL 5, 2024

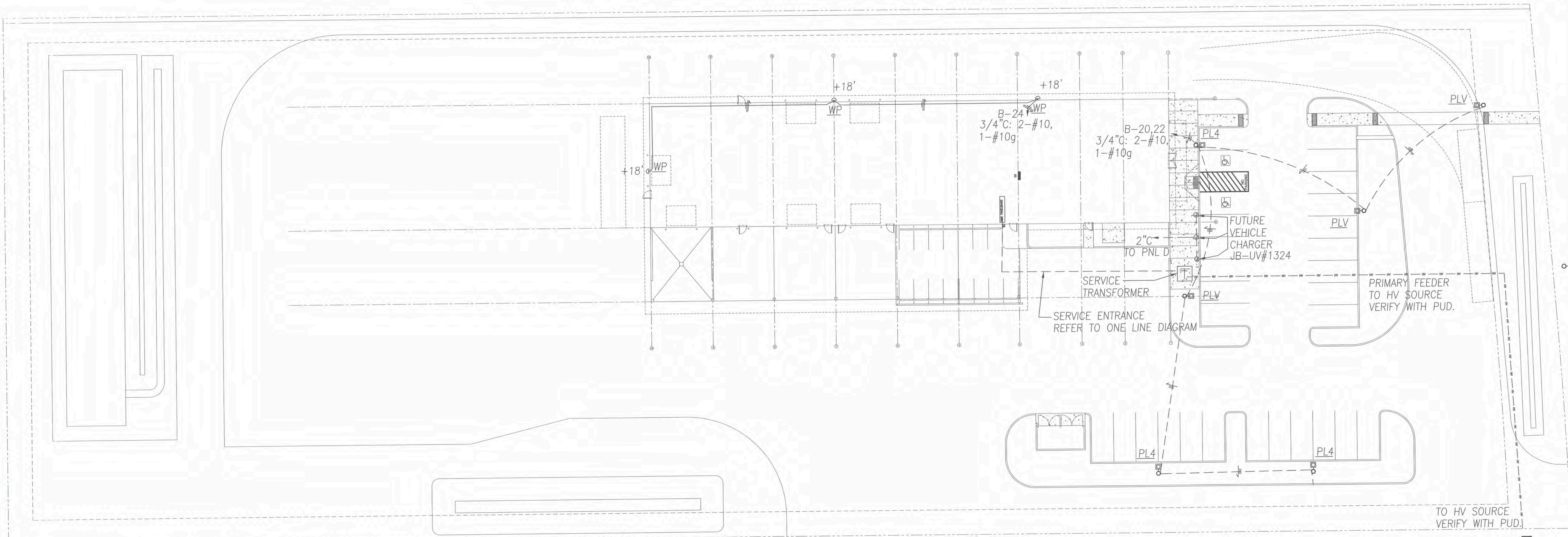
A & A
ATHAY & ASSOC.
INC.
CONSULTING
ELECTRICAL ENGINEERS
411 NE 83rd Street
VANCOUVER, WA 98665
(360) 574-0199 (503) 285-2456
fax (360) 574-0209
rathay@athayeng.com



2 POLE BASE DETAIL
E1.0 NOT TO SCALE
PROVIDE CONCRETE POLE BASE AT EACH TYPE PL LIGHTING STANDARD.

SITE PLAN HEX NOTES:

PROVIDE NEW STREET LIGHT WITH BASE, POLE AND LUMINAIRE PER WOODLAND CURRENT STANDARDS. EXISTING J-BOX ADJACENT TO NEW POLE INCLUDES EXISTING CIRCUITRY (1 1/2" C, WITH CONDUCTORS). EXTEND TO NEW STREET LIGHT AND CONNECT STREET LIGHT COMPLETE AND OPERATIONAL. VERIFY EXISTING CONDITIONS ON SITE.
STREET LIGHT POLE: #T-306-3720
POLE BASE: # PROVIDE BOLE BASE PER CITY OF WOODLAND REQUIREMENTS.
LUMINAIRE: LED, DISTRIBUTION T3R, 4 LAMPS, 700 MA, 15,636 KUMENS, 240V, 138 W.
LUMARK: #NAV AE 04 D UNV T3R 10K700 PER7 IP66 K AP 0A/RA1013



1 ELECTRICAL SITE PLAN
E1.0 SCALE: 1"=20'

WAREHOUSE & OFFICE
1951 SCHURMAN WAY
WOODLAND, WA 98674

DATE	SCALE
06/03/22	AS SHOWN
JOB NO. 4221	DRAWN BY RDA
REVISIONS:	
1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	
9.	
10.	

E1.0
ELECTRICAL
SITE
PLAN

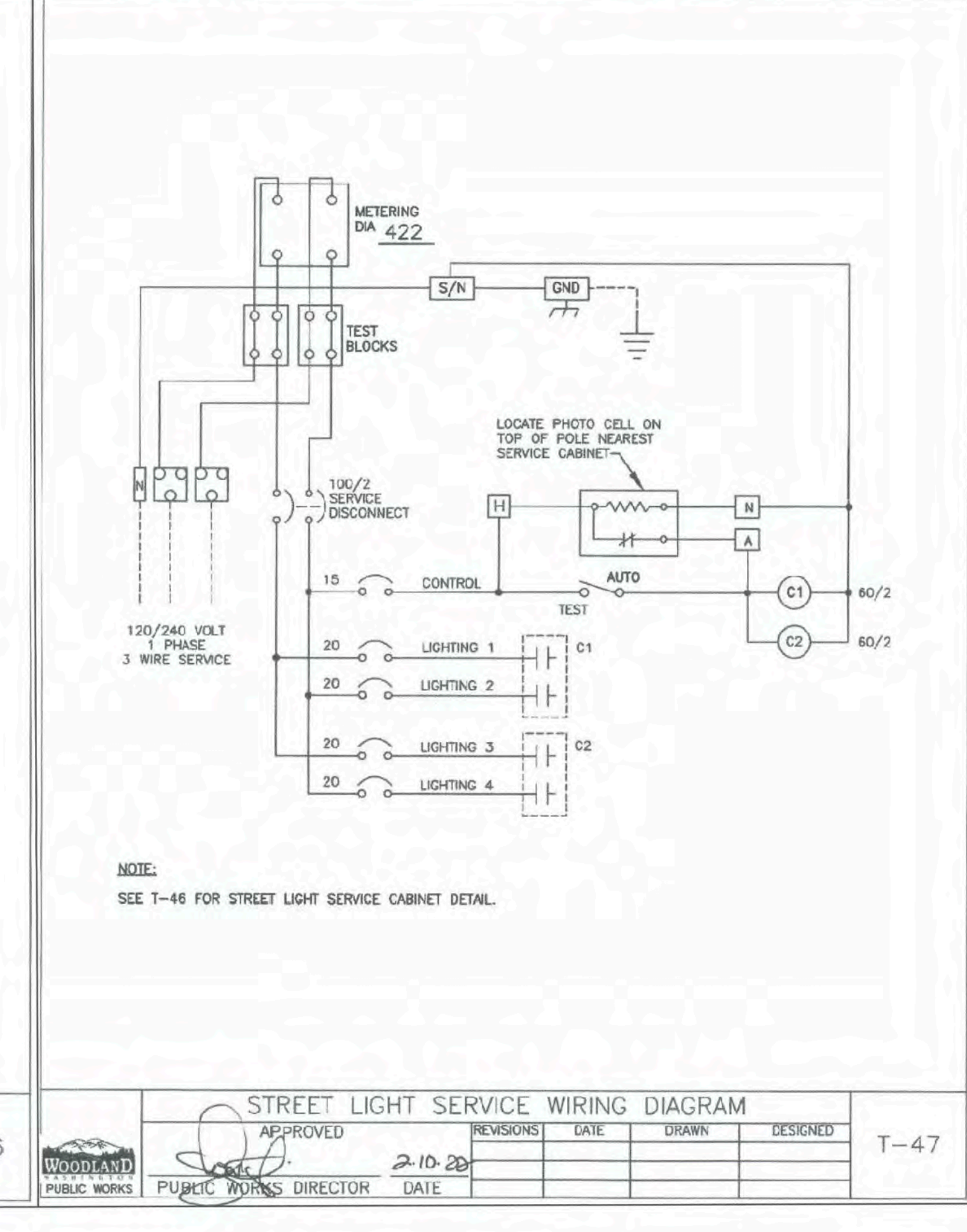
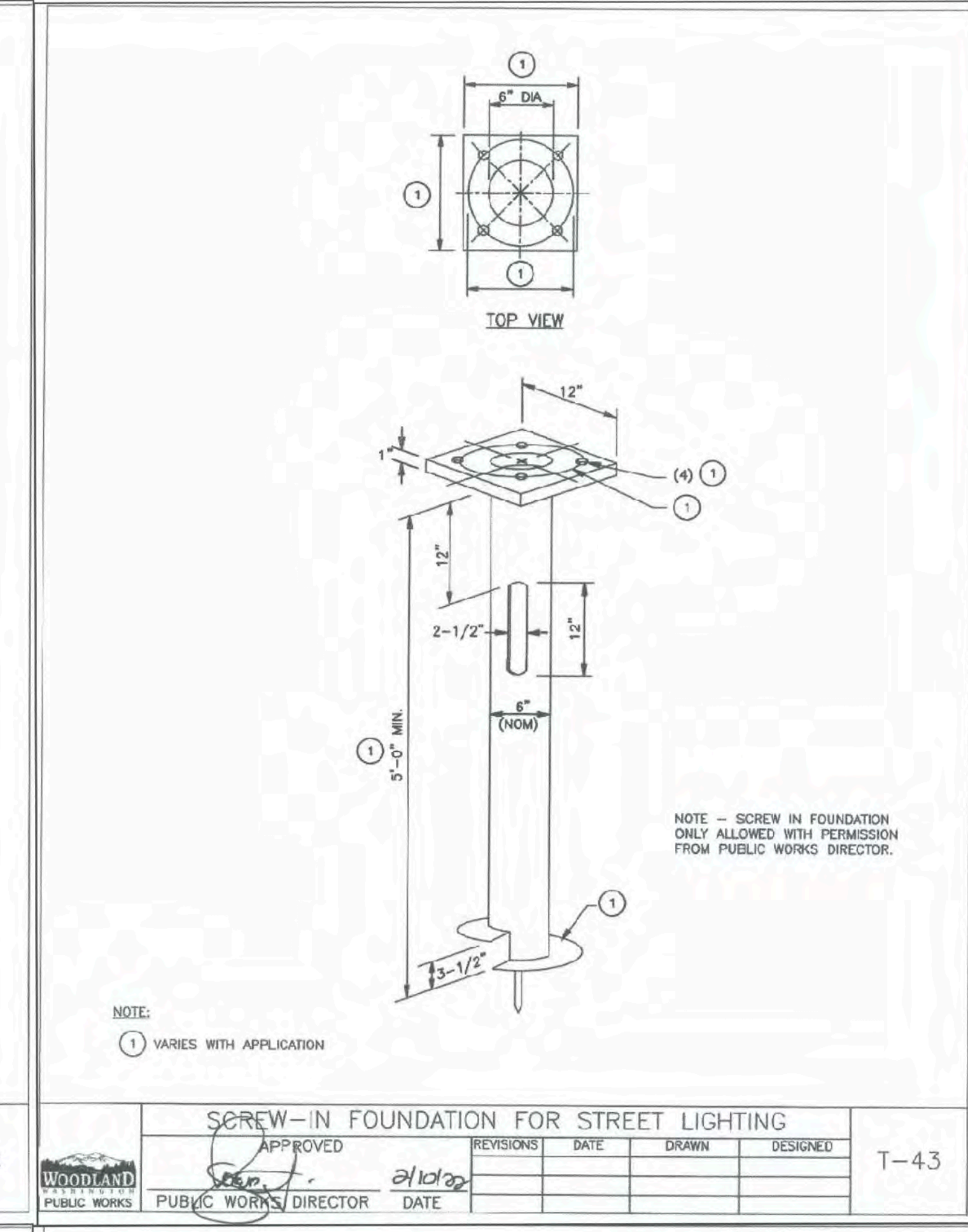


Revisions	1	2	3	4	5	6

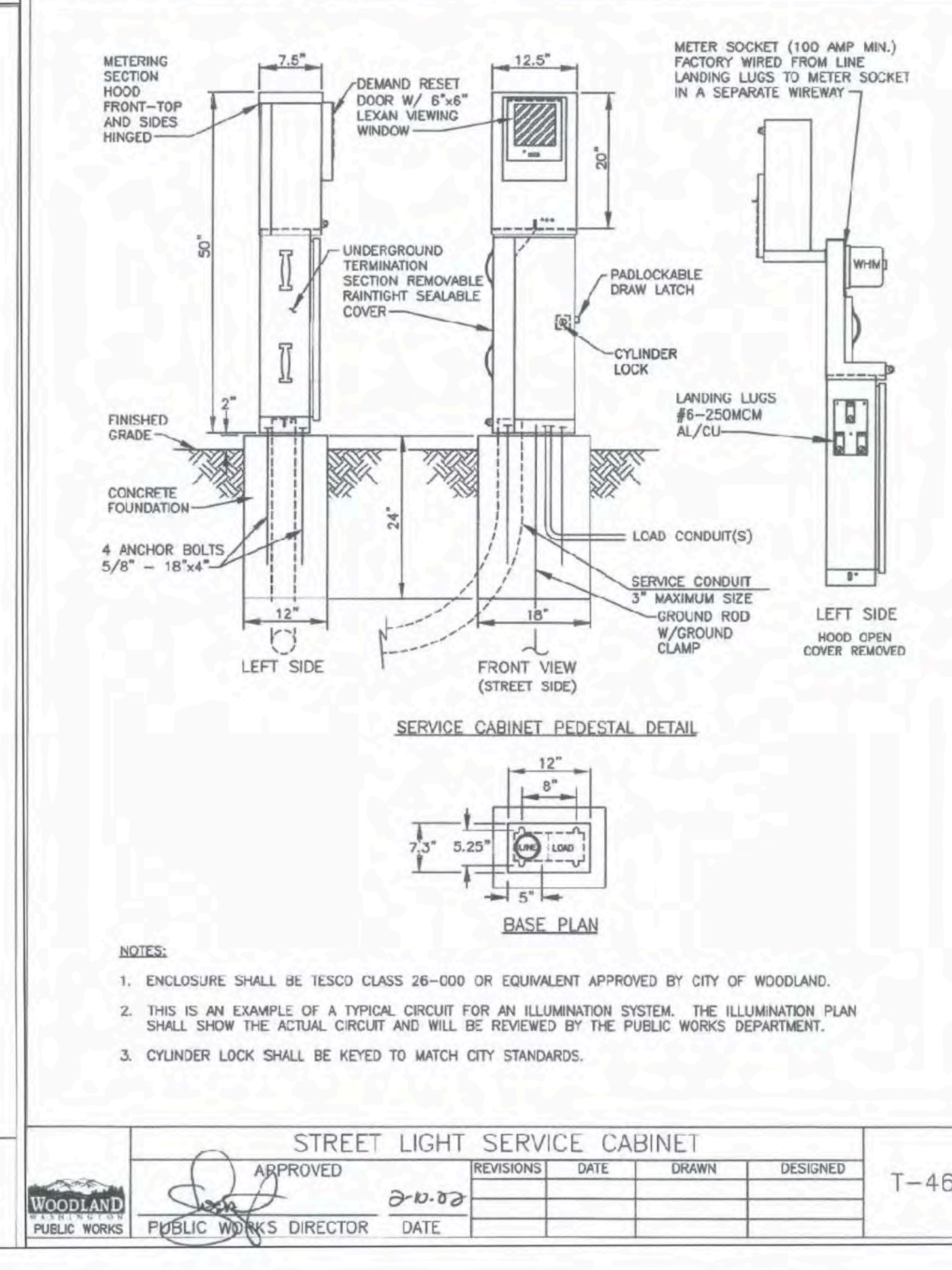
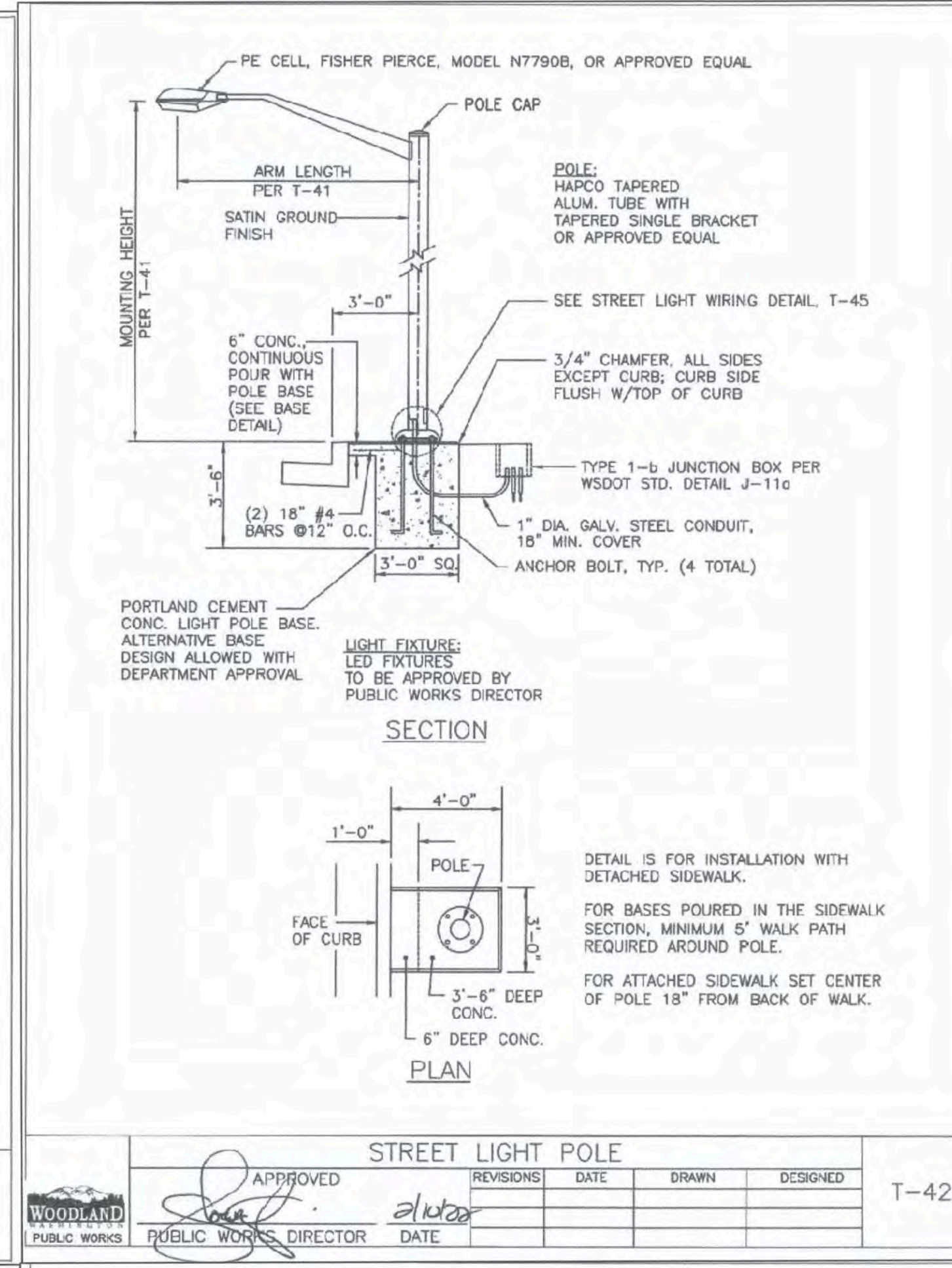


Project No. 3405
 SCALE: H: N/A
 V: N/A
 DESIGNED BY: TJL
 DRAFTED BY: TJL
 REVIEWED BY: AJG

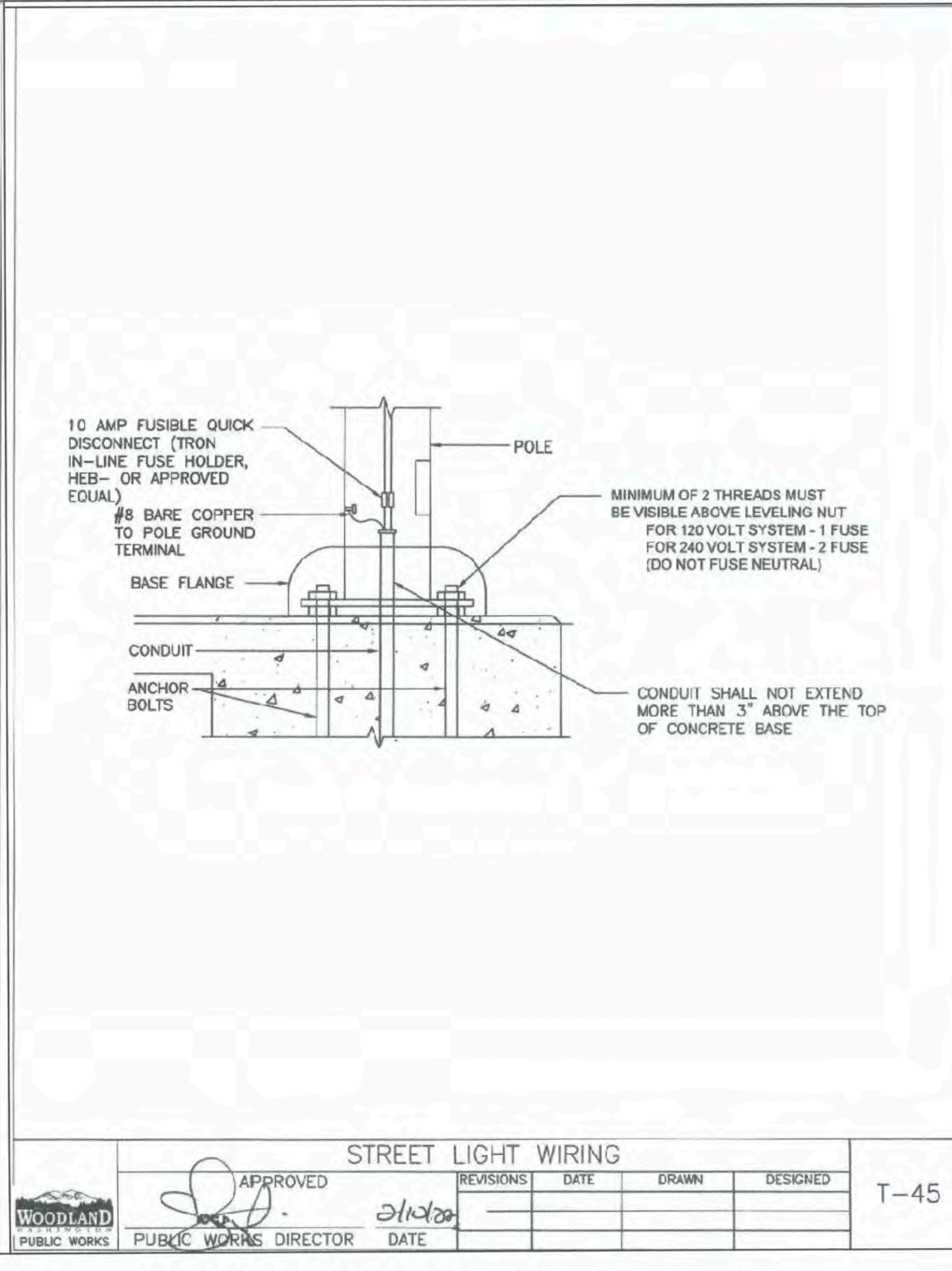
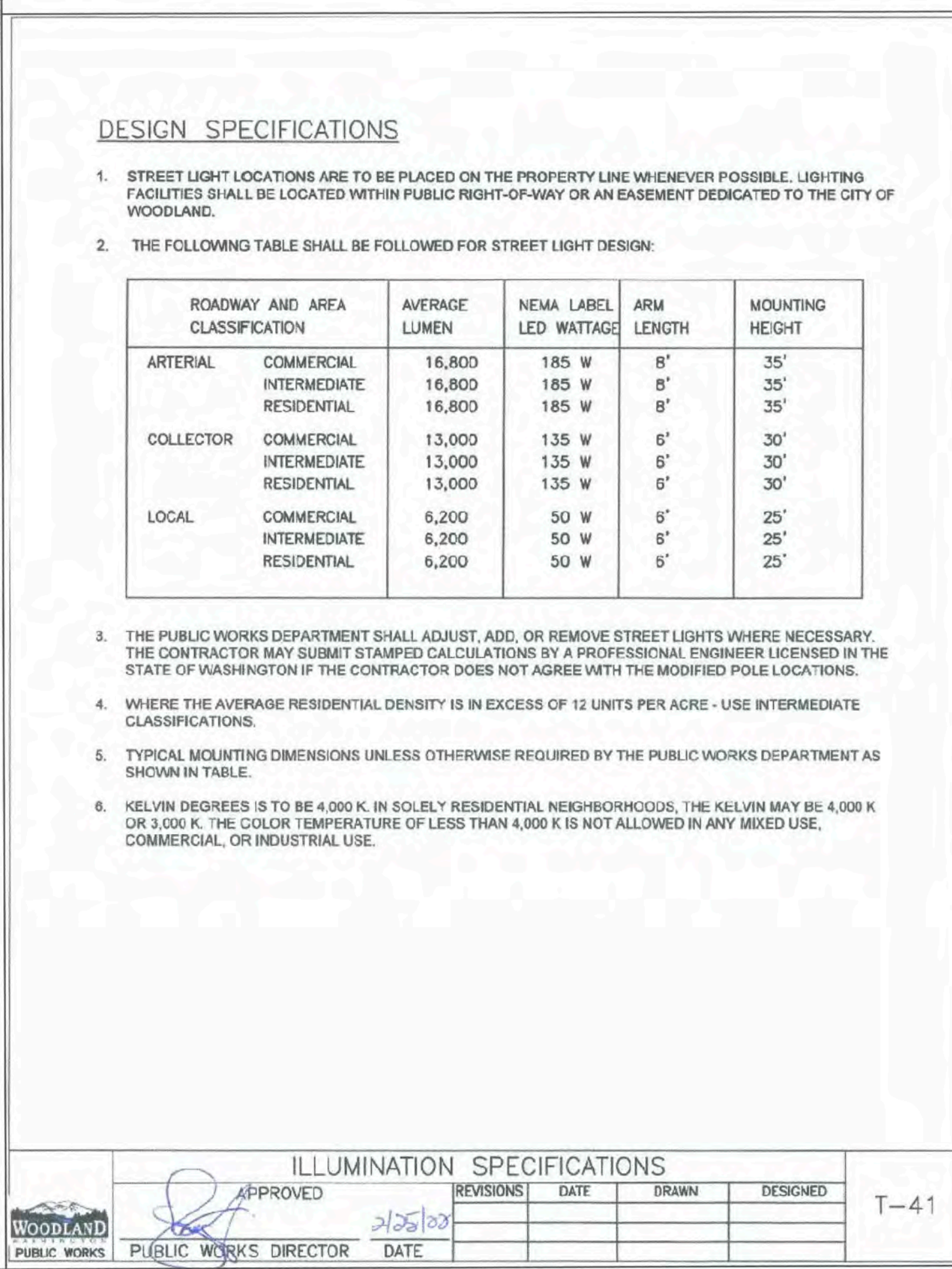
E2



APPROVED	REVISIONS	DATE	DRAWN	DESIGNED	T-44



APPROVED	REVISIONS	DATE	DRAWN	DESIGNED	T-45



APPROVED	REVISIONS	DATE	DRAWN	DESIGNED	T-45

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 AROUND 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 TROWELED, BRUSHED, EDGED, 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.

POLES
 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 SHAFT 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 TROWELED TO THE CONTOUR OF THE POLE FLANGE. A PLASTIC DRAIN HOSE (1/2" DIAMETER) 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 GEMENT AND FINE SAND WITH JUST ENOUGH WATER SO THAT THE MIXTURE WILL STICK TOGETHER ON BEING MOLDED INTO A BALL BY HAND AND WILL NOT EXUDE FREE MOISTURE WHEN SO PRESSED.

CONDUIT
 ALL CONDUIT SHALL BE SCHEDULE 40 PVC, MINIMUM ONE INCH DIAMETER EXCEPT UNDER DRIVEWAYS, 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.

RIGID 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 #6 BARE METAL CONDUITS IN THE JUNCTION BOX. GROUNDING OF CONDUIT AND GROUND WIRE AT THE SERVICE POINT TO THE PUD SERVICE. GROUNDING ON THE PUD POWER POLE SHALL BE ACCOMPLISHED AS REQUIRED UNDER THE NATIONAL ELECTRICAL CODE.

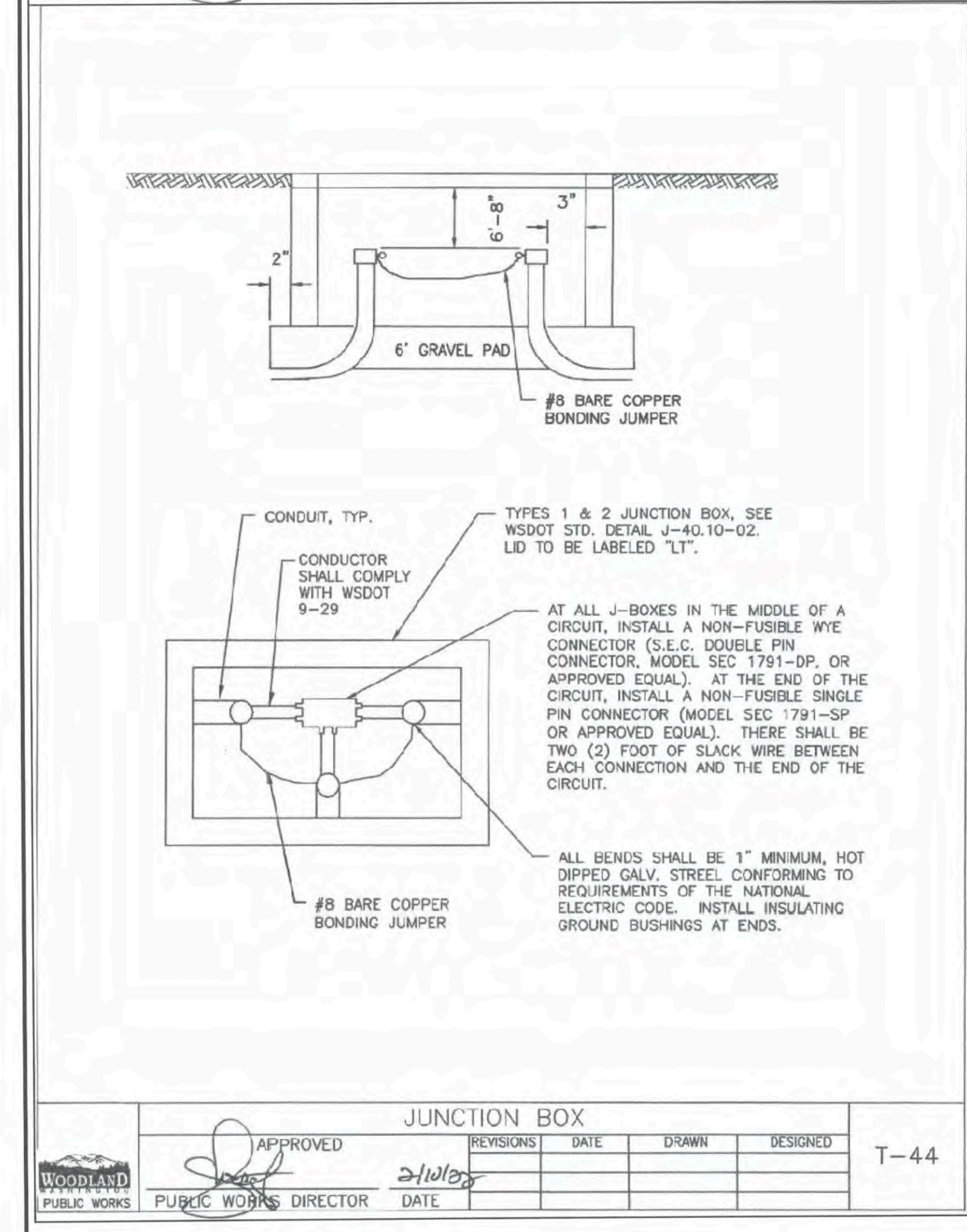
CATALOG CUTS
 PRIOR TO THE BEGINNING OF CONSTRUCTION, CATALOG CUTS OF THE FOLLOWING ITEMS SHALL BE SUBMITTED AND APPROVED BY THE PUBLIC WORKS DIRECTOR: 1. STREET LIGHT STANDARDS 2. LUMINAIRES 3. JUNCTION BOXES 4. WYE AND N-IN-LINE CONNECTORS 5. SERVICE CABINET 6. IN-LINE FUSE HOLDERS 7. CONDUIT B. WIRE.

CRITICAL INSPECTION POINTS
 THE ILLUMINATION SYSTEM WILL BE INSPECTED BY THE PUBLIC WORKS DEPARTMENT. THE TELEPHONE NUMBER IS: (360)225-7999.

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 WITHOUT THE DEPTH OF CONDUIT VERIFIED.
 2. SERVICE. THE SERVICE SHALL BE INSPECTED AND APPROVED BY THE INSPECTOR. 3. WIRING. THE WIRING, SPLICES, 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.



APPROVED	REVISIONS	DATE	DRAWN	DESIGNED	T-44

APPROVED	REVISIONS	DATE	DRAWN	DESIGNED	T-40

APPROVED	REVISIONS	DATE	DRAWN	DESIGNED	T-41

APPROVED	REVISIONS	DATE	DRAWN	DESIGNED	T-42

APPROVED	REVISIONS	DATE	DRAWN	DESIGNED	T-43

APPROVED	REVISIONS	DATE	DRAWN	DESIGNED	T-44

APPROVED	REVISIONS	DATE	DRAWN	DESIGNED	T-45

APPROVED	REVISIONS	DATE	DRAWN	DESIGNED	T-46

APPROVED	REVISIONS	DATE	DRAWN	DESIGNED	T-47