

ADDENDUM #2
TO
CITY OF TROUTDALE

Reservoir #2 Access Improvements Project

Date: July 14, 2020

To: All Planholders

CC: File, City

From: Blair Carlson
Engineer
AKS Engineering & Forestry, LLC

The following amendments and clarifications are made to the bidding and contract documents for the City of Troutdale Reservoir #2 Access Improvements Project:

The following questions/comments (paraphrased) were posed. Please see questions/comments and responses below:

1. *1 ½”-0 rock is not readily available from some suppliers. Please consider an option to replace 1 ½”-0 aggregate base with 1”-0 aggregate base rock*

Project plans are amended as follows:

AC Pavement Section (1/SRF) on Sheet C4.0 is revised to allow 8.0” of 1 ½”-0 or 1”-0 aggregate base rock.

2. *The water service line on Sheet C2.0 shows approximately 40’ of ¾” “K” Type copper pipe, but there is no line item in the bid schedule for this.*

An error was also discovered on the project plans. Project bid schedule and plans are amended as follows:

Item 4-4 (¾ Inch Copper Tubing (Type K) Water Service Line, 54 L.F.) is added.

Item 4-1 (1.5 Inch Copper Tubing (Type K) Water Service Line Unit is reduced from 356 L.F. to 341 L.F.

On Sheet C2.0, a 14.69 L.F. section of water line was erroneously labeled as 1.5” in diameter. It is revised to be ¾”. Additionally, keynote #19 has been revised to include a reducer tee.

3. *Sheet C2.0, Keynote #18 and a general note on Sheet C0.3 are conflicting. Who pays for the building connection and permit?*

The note on Sheet C0.3 is correct. Keynote #18 on Sheet C2.0 is revised.

4. *What is the size of the Double Check Valve Assembly in Bid Item 4-3?*

Project bid schedule is amended as follows:

Item 4-3 reads 1.5 Inch Double Check Valve Assembly (DCVA).

5. *Sheet C0.3 has a note that an existing water service for the adjacent property was not located and may need to be relocated. Please identify the adjacent parcel that is referenced.*

The property referenced is Tax Lot 6400, directly to the east of the project site.

6. *Bid Item 1-4 notes 500 C.Y. of excavation. Where does this volume come from?*

This is an error in the bid schedule. All excavation (cut/fill) has been accounted for under separate bid schedule items (i.e., parking lot demolition and storm facility construction). The bid schedule has been amended as follows:

Item 1-4 is deleted.

7. The Bid Schedule has been revised. The revised Bid Schedule is attached herewith. All bidders shall submit their bid on the revised Bid Schedule.

BID SCHEDULEType or hand print legibly

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	COST
1-1	Mobilization	1	L.S.		
1-2	Demolish Existing Parking Lot ¹	1	L.S.		
1-3	Miscellaneous Demolition ²	1	L.S.		
1-4	General Excavation	NA	C.Y.		
1-5	Asphalt Pavement Saw Cutting	200	L.F.		
1-6	Structure Rim Adjustment	2	EA.		
1-7	Construction Entrance, Type 1	1	EA.		
1-8	Sediment Fence	330	L.F.		
1-9	Inlet Protection, Type 3	1	EA.		
1-10	Concrete Washout Facility	1	EA.		
1-11	Temporary Sediment Trap	1	EA.		
2-1	Level 2 ACP (3 Inch Single Lift)	285	TON		
2-2	Aggregate Base	532	TON		
2-3	Subgrade Geotextile (Alternate) ³	1,670	S.Y.		
2-4	Concrete Driveway ⁴	1	EA.		
2-5	Wheel Stops	18	EA.		
2-6	Longitudinal Pavement Markings – Paint (4" White)	465	L.F.		
2-7	Red Curb Paint with White "No Parking – Fire Lane" Longitudinal Markings	132	L.F.		
2-8	Pavement Legend, Type AB: Disabled Parking	1	EA.		
2-9	Pavement Legend, Type AB: "Compact" Parking	2	EA.		
2-10	Pavement Legend, Type AB: "No Parking" (ADA Access Aisle)	1	EA.		
2-11	ADA Parking Sign	1	EA.		

2-12	Pavement Legend, Type AB: Disabled Parking	1	EA.		
3-1	6 Inch Ductile Iron Pipe with Class B Backfill	122	L.F.		
3-2	6 Inch Clean Out – Ductile Iron	1	EA.		
3-3	Connection to Existing Structures (Catch Basin)	1	EA.		
3-4	Storm Facility Complete ⁵	1	L.S.		
4-1	1.5 Inch Copper Tubing (Type K) Water Service Line ⁶	341	L.F.		
4-2	1 Inch Water Meter Assembly	1	EA.		
4-3	1.5 Inch Double Check Valve Assembly (DCVA)	1	EA.		
4-4	3/4 Inch Copper Tubing (Type K) Water Service Line ⁶	54	L.F.		
5-1	Survey Construction Staking ⁸	1	L.S.		

Notes:

1. Includes all excavation to subgrade and haul off for parking lot and driveway areas.
2. Includes all pipe and miscellaneous demolition and catch basin decommissioning.
3. Mirafi 500x or equivalent geotextile fabric is a wet weather alternate.
4. Includes sidewalk/ramp adjacent to driveway and traffic control.
5. Includes all elements of storm facility (curb wall, rock, splash pads, spillways, catch basin, liner, soil media, landscaping, excavation, etc.)
6. Includes excavation, tapping the main, laying and jointing pipe and fittings, corporation stop, saddle, appurtenances, backfill, surface restoration, testing, and flushing and disinfection of the water service. City to pay SDC fee.
7. Includes all necessary work to perform staking for lines, grades, and improvements in the field.

TOTAL OF BID

\$ _____

GENERAL CIVIL NOTES

- CONTRACTOR SHALL PROCURE, PAY ALL COSTS FOR, AND CONFORM TO ALL CONSTRUCTION PERMITS REQUIRED BY THE CITY OF TROUTDALE, CITY OF GRESHAM AND MULTNOMAH COUNTY. CONTRACTOR SHALL COORDINATE AND PAY ALL FEES AND COSTS ASSOCIATED WITH CONNECTING TO EXISTING WATER, SANITARY SEWER AND STORM SEWER FACILITIES, INCLUDING SERVICES AND INSPECTIONS BY THE GOVERNING JURISDICTIONS. COSTS SHALL INCLUDE AS APPLICABLE BUT NOT BE LIMITED TO FEES FOR CONNECTION, TAPPING, INSPECTION, TESTING, CHLORINATION, WATER METERS, BACKFLOW CERTIFICATIONS, OR OTHER SIMILAR OR RELATED COSTS.
- CONTRACTOR TO PAY ALL PROJECT PERMIT COSTS, INCLUDING BUT NOT LIMITED TO UTILITY TAPPING, TV, AND CHLORINATION COSTS. THE CONTRACTOR SHALL COORDINATE WITH THE GOVERNING JURISDICTION TO DETERMINE APPROPRIATE FEES AND PROVIDE THE OWNER WITH 48 HOURS NOTICE PRIOR TO THE REQUIRED PAYMENT OF FEES OR COSTS.
- OREGON LAW REQUIRES YOU TO FOLLOW RULES ADOPTED BY THE OREGON UTILITY NOTIFICATION CENTER. THOSE RULES ARE SET FORTH IN OAR 952-001-0010 THROUGH OAR 952-001-0090. THE TELEPHONE NUMBER FOR THE OREGON UTILITY NOTIFICATION CENTER IS (800) 332-2344.
- CONTRACTOR TO NOTIFY CITY, COUNTY, AND ALL UTILITY COMPANIES A MINIMUM OF 48 BUSINESS HOURS PRIOR TO START OF CONSTRUCTION, AND COMPLY WITH ALL OTHER NOTIFICATION REQUIREMENTS OF AGENCIES WITH JURISDICTION OVER THE WORK.
- CONTRACTOR SHALL PROVIDE ALL BONDS AND INSURANCE REQUIRED BY PUBLIC AND/OR PRIVATE AGENCIES HAVING JURISDICTION. WHERE REQUIRED BY PUBLIC AND/OR PRIVATE AGENCIES HAVING JURISDICTION, THE CONTRACTOR SHALL SUBMIT A SUITABLE MAINTENANCE BOND PRIOR TO FINAL PAYMENT.
- PRIOR TO BEGINNING WORK, THE CONTRACTOR SHALL PROVIDE THE FOLLOWING ITEMS TO THE OWNER'S REPRESENTATIVE.
 - LIST OF SUBCONTRACTORS
 - PROJECT SCHEDULE
 - TRAFFIC CONTROL PLAN
 - EMERGENCY CONTACT NAME AND PHONE NUMBER
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW ALL OF THE DOCUMENTS AND PLANS ASSOCIATED WITH THE PROJECT WORK SCOPE PRIOR TO THE INITIATION OF CONSTRUCTION. SHOULD THE CONTRACTOR FIND A CONFLICT WITH THE DOCUMENTS/PLANS RELATIVE TO THE SPECIFICATIONS OR THE APPLICABLE CODES, IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE OWNER'S REPRESENTATIVE IN WRITING PRIOR TO THE START OF CONSTRUCTION. FAILURE BY THE CONTRACTOR TO NOTIFY THE OWNER'S REPRESENTATIVE SHALL CONSTITUTE ACCEPTANCE OF FULL RESPONSIBILITY BY THE CONTRACTOR TO COMPLETE THE SCOPE OF WORK AS DEFINED BY THE DOCUMENTS/PLANS IN FULL COMPLIANCE WITH LOCAL, STATE, AND FEDERAL REGULATIONS AND CODES.
- THE FOLLOWING DOCUMENT IS INCORPORATED INTO THE PROJECT BY REFERENCE HEREIN: CITY OF TROUTDALE CONSTRUCTION STANDARDS. PRIOR TO STARTING CONSTRUCTION CONTRACTOR SHALL REVIEW THE LATEST EDITION OF THIS DOCUMENT. CONTRACTOR SHALL CONFORM TO ALL RECOMMENDATIONS LISTED IN THE STANDARDS.
- ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE APPROVED PLANS AND THE APPLICABLE PROVISIONS OF THE APPROVING AGENCIES' CONSTRUCTION STANDARDS, THE MOST RECENT EDITION OF THE UNIFORM PLUMBING CODE (UPSC), THE MOST RECENT EDITION OF THE INTERNATIONAL BUILDING CODE (IBC), CITY'S CONSTRUCTION STANDARDS, OREGON HEALTH DIVISION (OHD), AND THE DEPARTMENT OF ENVIRONMENTAL QUALITY (DEQ) WHEREIN EACH HAS JURISDICTION.
- CONTRACTOR SHALL AT ALL TIMES ABIDE BY APPLICABLE SAFETY RULES OF OSHA, IN PARTICULAR THOSE REGULATIONS PERTAINING TO ADEQUATE SHORING AND TRENCH PROTECTION FOR WORKMEN.
- CONSTRUCTION OF ALL PUBLIC FACILITIES SHALL BE DONE WITHIN THE HOURS PERMITTED BY THE GOVERNING JURISDICTION.
- THE CONTRACTOR SHALL PERFORM ALL WORK NECESSARY TO COMPLETE THE PROJECT IN ACCORDANCE WITH THE APPROVED CONSTRUCTION DRAWINGS INCLUDING SUCH INCIDENTALS AS MAY BE NECESSARY TO MEET APPLICABLE AGENCY REQUIREMENTS AND PROVIDE A COMPLETED PROJECT.
- ALL DIMENSIONS SHOWN ON THE PLANS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION. CONTRACTOR SHALL REVIEW AND COORDINATE THE BUILDING LAYOUT BY CAREFUL REVIEW OF THE SITE PLAN AND LATEST ARCHITECTURAL PLANS (INCLUDING, BUT NOT LIMITED TO, STRUCTURAL, MECHANICAL, ELECTRICAL, PLUMBING, AND FIRE SUPPRESSION PLAN, WHERE APPLICABLE). CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER'S REPRESENTATIVE AND ARCHITECT OF ANY DISCREPANCIES.
- ANY INSPECTION BY THE CITY, COUNTY, AKS, OWNER'S REPRESENTATIVE, OR OTHER AGENCIES SHALL NOT, IN ANY WAY, RELIEVE THE CONTRACTOR FROM ANY OBLIGATION TO PERFORM THE WORK IN STRICT COMPLIANCE WITH THE CONTRACT DOCUMENTS, APPLICABLE CODES, AND AGENCY REQUIREMENTS.
- IF THE CONTRACTOR DEVIATES FROM THE APPROVED PLANS, INCLUDING THESE NOTES, WITHOUT FIRST OBTAINING THE PRIOR WRITTEN AUTHORIZATION OF THE ENGINEER FOR SUCH DEVIATIONS, CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE PAYMENT OF ALL COSTS INCURRED IN CORRECTING ANY WORK DONE WHICH DEVIATES FROM THE PLANS.
- THE ENGINEER HAS NOT BEEN RETAINED OR COMPENSATED TO PROVIDE DESIGN AND CONSTRUCTION REVIEW SERVICES RELATING TO THE CONTRACTOR'S SAFETY PRECAUTIONS OR TO MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES REQUIRED FOR THE CONTRACTOR TO PERFORM HIS WORK.
- CONTRACTOR SHALL MAINTAIN ONE (1) COMPLETE SET OF APPROVED PLANS ON THE CONSTRUCTION SITE AT ALL TIMES WHEREON HE WILL RECORD ALL APPROVED DEVIATIONS IN CONSTRUCTION FROM THE APPROVED DRAWINGS, AS WELL AS LOCATIONS AND DEPTHS OF ALL EXISTING UTILITIES ENCOUNTERED. THESE FIELD RECORD DRAWINGS SHALL BE KEPT UP TO DATE AT ALL TIMES AND SHALL BE AVAILABLE FOR INSPECTION BY THE CITY OR OWNER'S REPRESENTATIVE UPON REQUEST.
- UPON COMPLETION OF CONSTRUCTION OF ALL NEW FACILITIES, CONTRACTOR SHALL SUBMIT A CLEAN SET OF FIELD RECORD DRAWINGS CONTAINING ALL AS-BUILT INFORMATION TO THE OWNER'S REPRESENTATIVE. ALL INFORMATION SHOWN ON THE CONTRACTOR'S FIELD RECORD DRAWINGS SHALL BE SUBJECT TO VERIFICATION. IF SIGNIFICANT ERRORS OR DEVIATIONS ARE NOTED, AN AS-BUILT SURVEY PREPARED AND STAMPED BY A REGISTERED PROFESSIONAL LAND SURVEYOR SHALL BE COMPLETED AT THE CONTRACTOR'S EXPENSE.

- CONTRACTOR SHALL CONFORM TO DEQ STORMWATER PERMIT NO. 1200C FOR CONSTRUCTION ACTIVITIES WHERE 1 ACRE OR MORE ARE DISTURBED.
- THE CONTRACTOR SHALL INSTALL AND MAINTAIN ALL EROSION CONTROL MEASURES IN ACCORDANCE WITH DEQ'S EROSION AND SEDIMENT CONTROL MANUAL, CURRENT EDITION, AND EROSION CONTROL STANDARDS OF THE LOCAL JURISDICTION.
- THE CONTRACTOR SHALL COORDINATE WITH THE SURVEYOR RETAINED BY THE OWNER OR RETAIN AND PAY FOR THE SERVICES OF A REGISTERED CIVIL ENGINEER AND/OR LAND SURVEYOR LICENSED IN THE STATE OF OREGON TO ESTABLISH CONSTRUCTION CONTROL AND PERFORM INITIAL CONSTRUCTION SURVEYS TO ESTABLISH THE LINES AND GRADES OF IMPROVEMENTS AS INDICATED ON THE DRAWINGS. STAKING FOR BUILDINGS, STRUCTURES, CURBS, GRAVITY DRAINAGE PIPES/STRUCTURES AND OTHER CRITICAL IMPROVEMENTS SHALL BE COMPLETED USING EQUIPMENT ACCURATE TO 0.04 FEET HORIZONTALLY AND 0.02 FEET VERTICALLY, OR BETTER. USE OF GPS EQUIPMENT FOR CONSTRUCTION STAKING OF THESE IMPROVEMENTS IS PROHIBITED.
- CONTRACTOR SHALL ERECT AND MAINTAIN BARRICADES, WARNING SIGNS, TRAFFIC CONES PER CITY, COUNTY AND/OR ODOT REQUIREMENTS IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) INCLUDING OREGON AMENDMENTS. ACCESS TO DRIVEWAYS SHALL BE MAINTAINED AT ALL TIMES. ALL TRAFFIC CONTROL MEASURES SHALL BE APPROVED AND IN PLACE PRIOR TO ANY CONSTRUCTION ACTIVITY.
- PRIOR TO ANY WORK IN THE EXISTING PUBLIC RIGHT-OF-WAY, CONTRACTOR SHALL SUBMIT FINAL TRAFFIC CONTROL PLAN TO THE CITY, COUNTY AND/OR ODOT FOR REVIEW AND ISSUANCE OF A LANE CLOSURE OR WORK IN RIGHT-OF-WAY PERMIT.
- CONTRACTOR SHALL CONDUCT CONSTRUCTION ACTIVITIES IN SUCH A MANNER AS TO INSURE MINIMUM INTERFERENCE WITH THE CONTINUED USE OF THE FACILITY BY EMPLOYEES, SUPPLIERS, AND CUSTOMERS. CONTRACTOR SHALL CONTACT AND DISCUSS PLANNED CONSTRUCTION ACTIVITIES AND TIMING WITH THE OWNER AT LEAST 48 HOURS PRIOR TO STARTING WORK. CONTRACTOR SHALL COOPERATE AND ACCOMMODATE OWNER'S REQUESTS TO THE MAXIMUM EXTENT POSSIBLE.
- CONSTRUCTION ACTIVITIES, EQUIPMENT, VEHICLES, AND MATERIALS SHALL BE PLACED IN AREAS MINIMIZING INCONVENIENCE TO THE FACILITIES NORMAL BUSINESS OPERATIONS AND SHALL BE COORDINATED WITH THE OWNER OR OWNER'S REPRESENTATIVE PRIOR TO THE START OF WORK.
- PRIOR TO FINAL ACCEPTANCE AND PAYMENT, THE CONTRACTOR SHALL CLEAN THE PROJECT SITE AND ADJACENT AREAS OF ANY DEBRIS, DISCARDED MATERIAL, OR OTHER ITEMS DEPOSITED BY THE CONTRACTOR'S PERSONNEL DURING THE PERFORMANCE OF THE WORK.
- THE CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE THAT ALL REQUIRED OR NECESSARY INSPECTIONS ARE COMPLETED BY AUTHORIZED INSPECTORS PRIOR TO PROCEEDING WITH SUBSEQUENT WORK WHICH COVERS OR THAT IS DEPENDENT ON THE WORK TO BE INSPECTED. FAILURE TO OBTAIN NECESSARY INSPECTION(S) AND APPROVAL(S) SHALL RESULT IN THE CONTRACTOR BEING FULLY RESPONSIBLE FOR ALL PROBLEMS ARISING FROM UNINSPECTED WORK.
- THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY INSPECTIONS OR NECESSARY OBSERVATIONS FOR ALL WORK PERFORMED INCLUDING ANY RE-TESTING THAT MAY BE REQUIRED TO MEET SPECIFICATION. THE CONTRACTOR SHALL PERFORM PRE-TESTS PRIOR TO SCHEDULING TESTS THAT MUST BE WITNESSED. TESTING MUST BE PERFORMED BY AN APPROVED THIRD PARTY INDEPENDENT TESTING LABORATORY RETAINED BY THE CONTRACTOR. CONTRACTOR IS SOLELY RESPONSIBLE FOR SCHEDULING TESTING. ALL TESTING MUST BE COMPLETED PRIOR TO PERFORMING SUBSEQUENT WORK. A COPY OF ALL TESTING RESULTS MUST BE PROVIDED TO THE OWNER'S REPRESENTATIVE IMMEDIATELY UPON COMPLETION OF THE TEST.
- THE FOLLOWING TESTING IS THE MINIMUM REQUIRED FOR THE PROJECT. REFER TO CITY CONSTRUCTION STANDARDS FOR ADDITIONAL INFORMATION.

SUBGRADE	1 TEST/4000 S.F./LIFT (4 TESTS MINIMUM)
ENGINEERED FILLS	1 TEST/4000 S.F./LIFT (4 TESTS MINIMUM)
BASEROCK	1 TEST/4000 S.F./LIFT (4 TESTS MINIMUM)
ASPHALT	1 TEST/6000 S.F./LIFT (4 TESTS MINIMUM)
TRENCH BACKFILL	1 TEST/200 FOOT TRENCH/LIFT (4 TESTS MINIMUM)
TRENCH AC RESTORATION	1 TEST/200 FOOT TRENCH/LIFT (4 TESTS MINIMUM)
WATER PRESSURE REP.	WITNESSED BY CITY OR OWNER'S REP.
WATER BACTERIAL REQUIREMENTS	PER OREGON HEALTH DIVISION
WATER CHLORINE REQUIREMENTS	RESIDUAL TEST PER CITY
STORM MANDREL	95% OF ACTUAL PIPE DIAMETER. WITNESSED BY OWNER'S REP.
CONCRETE SLUMP	1 SET OF CYLINDERS/100 C.Y. OF CONCRETE POURED PER DAY. SLUMP AND AIR TESTS REQUIRED ON SAME LOAD AS CYLINDERS.
- ALL ENGINEERED FILLS REQUIRE AN APPROVED INDEPENDENT TESTING LABORATORY RETAINED BY THE CONTRACTOR, TO PROVIDE WRITTEN CERTIFICATION STAMPED BY AN OREGON REGISTERED PROFESSIONAL ENGINEER STATING THAT THE SUBGRADE WAS PREPARED AND ALL ENGINEERED FILLS WERE PLACED IN ACCORDANCE WITH THE CONSTRUCTION DRAWINGS AND CONTRACT DOCUMENTS.
- THE LOCATION AND DESCRIPTIONS OF EXISTING UTILITIES SHOWN ON THE DRAWINGS ARE COMPILED FROM AVAILABLE RECORDS AND/OR FIELD SURVEYS. WE DO NOT GUARANTEE THE ACCURACY OR THE COMPLETENESS OF SUCH RECORDS. ADDITIONAL UTILITIES MAY EXIST WITHIN THE WORK AREA. CONTRACTOR SHALL FIELD VERIFY LOCATIONS AND SIZES OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.

- ANY UTILITIES LOCATED IN THE FIELD THAT THE CONTRACTOR DISRUPTS OR DAMAGES SHALL BE PROMPTLY REPAIRED TO NEW CONDITION. IF REQUIRED, CONTRACTOR SHALL INSTALL SUITABLE TEMPORARY SERVICE UNTIL REPAIR CAN BE COMPLETED. THE COST OF THE REPAIR OR TEMPORARY SERVICE SHALL BE BORNE BY THE CONTRACTOR.
- NOTIFY THE OWNER AND OWNER'S REPRESENTATIVE IMMEDIATELY OF ALL UTILITIES EXPOSED. UNIDENTIFIED UTILITIES SHALL NOT BE DISRUPTED OR CUT UNTIL OWNER OR OWNER'S REPRESENTATIVE HAS APPROVED THE CUT OR DISRUPTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND MARKING ALL EXISTING SURVEY MONUMENTS OF RECORD (INCLUDING BUT NOT LIMITED TO PROPERTY AND STREET MONUMENTS) PRIOR TO CONSTRUCTION. IF ANY SURVEY MONUMENTS ARE REMOVED, DISTURBED OR DESTROYED DURING CONSTRUCTION OF THE PROJECT, THE CONTRACTOR SHALL RETAIN AND PAY FOR THE SERVICES OF A REGISTERED PROFESSIONAL SURVEYOR LICENSED IN THE STATE OF OREGON TO REFERANCE AND REPLACE ALL SUCH MONUMENTS PRIOR TO SUBSTANTIAL COMPLETION OF THE PROJECT. THE MONUMENTS SHALL BE REPLACED WITHIN A MAXIMUM OF 90 DAYS, AND THE COUNTY SURVEYOR SHALL BE NOTIFIED IN WRITING AS REQUIRED BY PER ORS 209.150.
- CONTRACTOR SHALL FIELD VERIFY LOCATION AND DEPTH OF ALL EXISTING UTILITIES WHERE NEW FACILITIES CROSS. ALL UTILITY CROSSINGS SHOWN ON THE DRAWINGS SHALL BE POTHOLED USING HAND TOOLS OR OTHER NON-INVASIVE METHODS PRIOR TO EXCAVATING OR BORING. CONTRACTOR SHALL BE RESPONSIBLE FOR EXPOSING POTENTIAL UTILITY CONFLICTS FAR ENOUGH AHEAD OF CONSTRUCTION TO MAKE NECESSARY GRADE OR ALIGNMENT MODIFICATIONS WITHOUT DELAYING THE WORK. IF GRADE OR ALIGNMENT MODIFICATION IS NECESSARY, CONTRACTOR SHALL NOTIFY THE ENGINEER, AND THE ENGINEER OR THE OWNER'S REPRESENTATIVE SHALL OBTAIN APPROVAL FROM THE CITY PRIOR TO CONSTRUCTION.
- ALL FACILITIES SHALL BE MAINTAINED IN-PLACE BY THE CONTRACTOR UNLESS OTHERWISE SHOWN OR DIRECTED. CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO SUPPORT, MAINTAIN, OR OTHERWISE PROTECT EXISTING UTILITIES AND OTHER FACILITIES AT ALL TIMES DURING CONSTRUCTION. CONTRACTOR TO LEAVE EXISTING FACILITIES IN AN EQUAL OR BETTER-THAN-ORIGINAL CONDITION.
- UTILITIES OR INTERFERING PORTIONS OF UTILITIES THAT ARE ABANDONED IN PLACE SHALL BE REMOVED BY THE CONTRACTOR TO THE EXTENT NECESSARY TO ACCOMPLISH THE WORK. THE CONTRACTOR SHALL HAVE ALL OPENINGS CLOSED WITH CONCRETE PLUGS WITH A MINIMUM LENGTH EQUAL TO 2 TIMES THE DIAMETER OF THE ABANDONED PIPE.
- CONTRACTOR SHALL REMOVE ALL EXISTING SIGNS, MAILBOXES, FENCES, LANDSCAPING, ETC., AS REQUIRED TO AVOID DAMAGE DURING CONSTRUCTION AND REPLACE THEM TO EXISTING OR BETTER CONDITION.
- IF SPRINGS OR GROUNDWATER ARE ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE OF THE CONDITIONS FOUND AND COORDINATE THE ACTIVITIES IN A MANNER THAT WILL ALLOW TIME TO REVIEW THE SITUATION AND PREPARE A PLAN TO PROPERLY MITIGATE THE WATER ENCOUNTERED.
- ANY SEPTIC TANKS ENCOUNTERED DURING CONSTRUCTION SHALL BE PUMPED OUT AND ABANDONED OR REMOVED IN ACCORDANCE WITH COUNTY SANITARIAN REQUIREMENTS.
- ANY WELLS ENCOUNTERED SHALL BE ABANDONED PER STATE OF OREGON WATER RESOURCES DEPARTMENT REQUIREMENTS.
- ANY FUEL TANKS ENCOUNTERED SHALL BE REMOVED AND DISPOSED OF PER STATE OF OREGON DEQ REQUIREMENTS. BACKFILL WITH COMPACTED GRANULAR MATERIAL.
- CONTRACTOR SHALL COORDINATE REMOVING OR ABANDONING ANY SEPTIC TANKS, WELLS (INCLUDING BOREHOLE PIEZOMETERS), AND FUEL TANKS ENCOUNTERED AS PER REGULATING AGENCY REQUIREMENTS. WHEN SHOWN ON THE DRAWINGS, THESE STRUCTURES SHALL BE REMOVED OR ABANDONED AT THE CONTRACTOR'S EXPENSE. WHEN NOT SHOWN ON THE DRAWINGS, THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE IMMEDIATELY UPON DISCOVERY OF ANY SEPTIC TANKS, WELLS, OR FUEL TANKS, AND OBTAIN APPROVAL FROM THE OWNER'S REPRESENTATIVE PRIOR TO PROCEEDING WITH THE WORK. THE CONTRACTOR SHALL PROVIDE THE OWNER WITH A DETAILED COST BREAKDOWN OF ALL WORK RELATED TO REMOVING OR ABANDONING SAID STRUCTURES. THE CONTRACTOR WILL BE REIMBURSED AT A NEGOTIATED PRICE AS AGREED.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MANAGING CONSTRUCTION ACTIVITIES TO ENSURE THAT PUBLIC STREETS AND RIGHT-OF-WAYS ARE KEPT CLEAN OF MUD, DUST OR DEBRIS. DUST ABATEMENT SHALL BE MAINTAINED BY ADEQUATE WATERING OF THE SITE BY THE CONTRACTOR.
- PRIVATE GRADING, ROCKING AND PAVING TO CONFORM TO OREGON STANDARD SPECIFICATIONS FOR CONSTRUCTION (OSSC/ODOT/APWA) AND IBC, CURRENT EDITIONS OR CITY CONSTRUCTION STANDARDS, WHICHEVER IS MORE STRINGENT.
- CLEAR AND GRUB WITHIN WORK LIMITS ALL SURFACE VEGETATION, TREES, STUMPS, BRUSH, ROOTS, ETC. DO NOT DAMAGE OR REMOVE TREES EXCEPT AS APPROVED BY THE OWNER'S REPRESENTATIVE OR AS SHOWN ON THE DRAWINGS. PROTECT ALL ROOTS TWO INCHES IN DIAMETER OR LARGER.
- STRIP WORK LIMITS, REMOVING ALL ORGANIC MATTER, WHICH CANNOT BE COMPACTED INTO A STABLE MASS. ALL TREES, BRUSH, AND DEBRIS ASSOCIATED WITH CLEARING, STRIPPING OR GRADING SHALL BE REMOVED AND DISPOSED OF OFF-SITE.
- IMMEDIATELY FOLLOWING STRIPPING AND GRADING OPERATIONS, COMPACT SUBGRADE TO 95% OF THE MAXIMUM DRY DENSITY PER AASHTO T-180 TEST METHOD (MODIFIED PROCTOR). SUBGRADE MUST BE INSPECTED AND APPROVED BY THE OWNER'S AUTHORIZED REPRESENTATIVE AND WRITTEN COMPACTION TEST RESULTS FROM AN INDEPENDENT TESTING LABORATORY MUST BE RECEIVED BEFORE PLACING EMBANKMENTS, ENGINEERED FILLS OR FINE GRADING FOR BASE ROCK.
- ALL FILLS SHALL BE ENGINEERED EXCEPT FOR FILLS LESS THAN 18-INCHES IN DEPTH WHICH ARE LOCATED OUTSIDE THE PUBLIC RIGHT-OF-WAY, BUILDING PADS, PARKING LOTS OR OTHER AREAS TO BE IMPROVED. ENGINEERED FILLS SHALL BE CONSTRUCTED WITH MAXIMUM 8" LISTS (LOOSE MEASURE) OVER APPROVED SUBGRADE. EACH LIFT SHALL BE COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY PER AASHTO T-180 TEST METHOD (MODIFIED PROCTOR).
- AREAS TO RECEIVE ENGINEERED OR STRUCTURAL FILL SHALL BE PREPARED BY REMOVING ALL ORGANIC AND UNSUITABLE MATERIALS AND PROOF ROLLING. MATERIAL IN SOFT SPOTS WITHIN AREAS TO BE IMPROVED SHALL BE REMOVED TO THE DEPTH REQUIRED (AS DIRECTED BY THE OWNER'S REPRESENTATIVE) TO PROVIDE A FIRM FOUNDATION AND SHALL BE REPLACED WITH SUITABLE COMPACTED BACKFILL.

- UNLESS OTHERWISE SHOWN IN CONTRACT DOCUMENTS, GRANULAR BASEROCK SHALL CONFORM TO THE REQUIREMENTS OF OSSC (000T/APWA) 02630.10 (DENSE GRADED BASE AGGREGATE). COMPACT BASEROCK TO 95% OF THE MAXIMUM DRY DENSITY PER AASHTO T-180 TEST METHOD (MODIFIED PROCTOR). WRITTEN BASEROCK COMPACTION TEST RESULTS FROM AN INDEPENDENT TESTING LABORATORY MUST BE RECEIVED BY THE OWNER'S AUTHORIZED REPRESENTATIVE BEFORE PLACING AC PAVEMENT.
- UNLESS OTHERWISE SHOWN IN CONTRACT DOCUMENTS, A.C. PAVEMENT SHALL BE 1/2" DENSE GRADED MIX CONFORMING TO OSSC (000T/APWA) 00744.13. A.C. PAVEMENT SHALL BE IMPACTED TO A MINIMUM OF 91% OF MAXIMUM DENSITY AS DETERMINED BY THE RICE STANDARD METHOD. WRITTEN AC PAVEMENT COMPACTION TEST RESULTS FROM AN INDEPENDENT TESTING LABORATORY MUST BE RECEIVED BY THE OWNER'S AUTHORIZED REPRESENTATIVE BEFORE FINAL PAYMENT.
- UNLESS OTHERWISE SHOWN ON THE DRAWINGS, STRAIGHT GRADES SHALL BE RUN BETWEEN ALL FINISH GRADE ELEVATIONS AND/OR FINISH CONTOUR LINES SHOWN.
- FINISH PAVEMENT GRADES AT TRANSITION TO EXISTING PAVEMENT SHALL MATCH EXISTING PAVEMENT GRADES OR BE FEATHERED PAST JOINTS WITH EXISTING PAVEMENT AS REQUIRED TO PROVIDE A SMOOTH, FREE DRAINING SURFACE.
- ALL EXISTING OR CONSTRUCTED MANHOLES, CLEANOUTS, MONUMENT BOXES, GAS VALVES, WATER VALVES AND SIMILAR STRUCTURES SHALL BE ADJUSTED TO MATCH FINISH GRADE OF THE PAVEMENT, SIDEWALK, LANDSCAPED AREA OR MEDIAN STRIP WHEREIN THEY LIE. VERIFY THAT ALL VALVE BOXES AND RISERS ARE CLEAN AND CENTERED OVER THE OPERATING RUN.
- FINISHED RIM ELEVATIONS OF MANHOLES SHOWN WITHIN PAVEMENT ARE APPROXIMATE AND SHALL MATCH FINAL FINISHED PAVEMENT GRADES. RIM ELEVATIONS OUTSIDE OF PAVEMENT SHALL BE SET 3' ABOVE FINISHED GRADE, UNLESS OTHERWISE DIRECTED OR SHOWN ON THE DRAWINGS.
- NO CUT OR FILL SLOPES SHALL BE CONSTRUCTED STEEPER THAN 2 FT. HORIZONTAL TO 1 FT. VERTICAL (2H:1V) UNLESS OTHERWISE SHOWN ON THE DRAWINGS AND APPROVED BY THE GEOTECHNICAL ENGINEER FOR THE PROJECT.
- WHERE RETAINING WALLS ARE IDENTIFIED ON THE PLANS, ELEVATIONS IDENTIFIED ARE FOR THE EXPOSED PORTION OF THE WALL. WALL FOOTING/FOUNDATION ELEVATIONS ARE NOT IDENTIFIED AND ARE TO BE DETERMINED BY THE CONTRACTOR.
- ALL PLANTER AREAS AND OPEN SPACE SHALL BE BACKFILLED WITH APPROVED TOPSOIL IN CONFORMANCE WITH THE LANDSCAPE PLAN FOR THE PROJECT. STRIPPING MATERIALS SHALL NOT BE USED FOR BACKFILL, UNLESS APPROVED IN WRITING BY THE OWNER'S REPRESENTATIVE.
- CONTRACTOR SHALL SEED AND MULCH ALL EXPOSED SLOPES AND DISTURBED AREAS, WHICH ARE NOT SCHEDULED TO BE LANDSCAPED.
- GRADING SHOWN ON THE DRAWINGS IS CRITICAL TO FUNCTIONING OF STORM SYSTEM AND SHALL BE STRICTLY FOLLOWED.
- CONTRACTOR SHALL COORDINATE AND ENSURE THAT DETENTION POND VOLUMES ARE INSPECTED AND APPROVED BY PUBLIC AGENCIES HAVING JURISDICTION BEFORE PAVING AND LANDSCAPING.
- THE CONTRACTOR IS RESPONSIBLE TO ENSURE 1.0% MINIMUM SLOPE ON ALL NEW CONCRETE AND ASPHALT SURFACES TO PREVENT PONDING. ANY DISCREPANCIES THAT MAY AFFECT ADA COMPLIANCE, PUBLIC SAFETY, OR PROJECT COST MUST BE IDENTIFIED IN WRITING TO THE OWNER'S REPRESENTATIVE IMMEDIATELY. PROCEEDING WITH CONSTRUCTION WITHOUT OWNER'S REPRESENTATIVE AUTHORIZATION AND REVIEW OF THE DISCREPANCY IS AT THE CONTRACTOR'S OWN COST RISK.
- 6-INCHES NOMINAL CURB EXPOSURE USED FOR DESIGN OF ALL PARKING LOT GRADES, UNLESS OTHERWISE SHOWN OR INDICATED ON THE DRAWINGS.
- WHERE NEW CURBING CONNECTS TO EXISTING CURBING OR IS INSTALLED ALONG EXISTING STREETS OR PAVEMENT, THE GUTTER GRADE SHALL MATCH THE EXISTING STREET GRADES SO AS TO ALLOW DRAINAGE FROM THE STREET TO THE GUTTER AND THROUGH ANY TRANSITIONS. THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE IN WRITING OF ANY GRADE DISCREPANCIES OR PROBLEMS PRIOR TO CURB PLACEMENT.
- ROAD WIDENING DESIGN IS BASED ON AVAILABLE SURVEY TAKEN AT RANDOM INTERVALS. STREET PAVEMENT WIDENING CROSS SLOPE SHALL BE A MINIMUM OF 2% AND A MAXIMUM OF 6%. PRIOR TO PLACING CURBS, CONTRACTOR SHALL FIELD VERIFY PAVEMENT WIDENING CROSS SLOPE AND CONTACT ENGINEER IF THE DESIGN PAVEMENT WIDENING CROSS SLOPE IS NOT WITHIN THE LIMITS STATED ABOVE.
- CONTRACTOR SHALL CONSTRUCT HANDICAP ACCESS RAMPS WHERE SHOWN IN ACCORDANCE WITH CURRENT ADA REQUIREMENTS.
- SIDEWALKS SHALL BE A MINIMUM OF 4-INCHES THICK AND STANDARD DRIVEWAYS SHALL BE A MINIMUM OF 6-INCHES THICK. COMMERCIAL USE DRIVEWAYS SHALL BE MINIMUM 8-INCHES THICK. ALL CURBS, SIDEWALKS AND DRIVEWAYS SHALL BE CONSTRUCTED USING 3300-PSI CONCRETE, AND SHALL BE CURED WITH TYPE 1 OR TYPE II CLEAR CURING COMPOUND UNLESS OTHERWISE SHOWN ON PLANS.
- PRIOR TO INSTALLATION OF CURB, GUTTER, ADA RAMPS, OR SIDEWALK THE OWNER'S REPRESENTATIVE AND/OR CITY INSPECTOR SHALL BE CONTACTED TO INSPECT STRING LINE, BASEROCK, AND FORMWORK.
- WHERE TRENCH EXCAVATION REQUIRES REMOVAL OF PCC CURBS AND/OR SIDEWALKS, THE CURBS AND/OR SIDEWALKS SHALL BE SAWCUT AND REMOVED AT A TOOLED JOINT UNLESS OTHERWISE AUTHORIZED IN WRITING THE CITY OR OWNER'S REPRESENTATIVE. THE SAWCUT LINES SHOWN ON THE DRAWINGS ARE SCHEMATIC AND NOT INTENDED TO SHOW THE EXACT ALIGNMENT OF SUCH CUTS.
- THE CONTRACTOR SHALL HAVE APPROPRIATE EQUIPMENT ON SITE TO PRODUCE A FIRM, SMOOTH, UNDISTURBED SUBGRADE AT THE TRENCH BOTTOM, TRUE TO GRADE. THE BOTTOM OF THE TRENCH EXCAVATION SHALL BE SMOOTH, FREE OF LOOSE MATERIALS OR TOOTH GROOVES FOR THE ENTIRE WIDTH OF THE TRENCH PRIOR TO PLACING THE GRANULAR BEDDING MATERIAL.
- AT A MINIMUM, ALL PIPES SHALL BE BEDDED WITH MINIMUM 6-INCHES OF 3/4"-0 CRUSHED ROCK BEDDING AND BACKFILLED WITH COMPACTED 3/4"-0 CRUSHED ROCK IN THE PIPE ZONE (CRUSHED ROCK SHALL EXTEND A MINIMUM OF 12-INCHES OVER THE TOP OF THE PIPE IN ALL CASES). CRUSHED ROCK TRENCH BACKFILL SHALL BE USED UNDER ALL AREAS TO BE IMPROVED, INCLUDING PAVEMENT, SIDEWALKS, FOUNDATION SLABS, BUILDINGS, ETC. REFER TO CITY CONSTRUCTION CONSTRUCTION STANDARDS.

- AT A MINIMUM, GRANULAR TRENCH BEDDING AND BACKFILL SHALL CONFORM TO THE REQUIREMENTS OF OSSC (000T/APWA) 02630.10 (DENSE GRADED BASE AGGREGATE), 3/4"-0. COMPACT GRANULAR BACKFILL TO 92% OF THE MAXIMUM DRY DENSITY PER AASHTO T-180 TEST METHOD (MODIFIED PROCTOR). REFER TO CITY CONSTRUCTION STANDARDS.
- CONTRACTOR SHALL ARRANGE TO ABANDON EXISTING SANITARY AND WATER SERVICES NOT SCHEDULED TO REMAIN IN SERVICE IN ACCORDANCE WITH APPROVING AGENCY REQUIREMENTS.
- THE END OF ALL UTILITY SERVICE LINES SHALL BE MARKED WITH A 2-x-4 PAINTED WHITE AND WIRED TO PIPE STUB. THE PIPE DEPTH SHALL BE WRITTEN ON THE POST IN 2" BLOCK LETTERS.
- ALL NON-METALLIC WATER, SANITARY AND STORM SEWER PIPING SHALL HAVE AN ELECTRICALLY CONDUCTIVE INSULATED 12 GAUGE COPPER TRACER WIRE THE FULL LENGTH OF THE INSTALLED PIPE USING BLUE WIRE FOR WATER AND GREEN WIRE FOR STORM AND SANITARY PIPING. TRACER WIRE SHALL BE EXTENDED UP INTO ALL VALVE BOXES, CATCH BASINS, MANHOLES AND LATERAL CLEANOUT BOXES. TRACER WIRE PENETRATIONS INTO MANHOLES SHALL BE WITHIN 18 INCHES OF THE RIM ELEVATION AND ADJACENT TO MANHOLE STEPS. THE TRACER WIRE SHALL BE TIED TO THE TOP MANHOLE STEP OR OTHERWISE SUPPORTED TO ALLOW RETRIEVAL FROM THE OUTSIDE OF THE MANHOLE.
- NO TRENCHES IN SIDEWALKS, ROADS, OR DRIVEWAYS SHALL BE LEFT IN AN OPEN CONDITION OVERNIGHT. ALL SUCH TRENCHES SHALL BE CLOSED BEFORE THE END OF EACH WORKDAY AND NORMAL TRAFFIC AND PEDESTRIAN FLOWS RESTORED.
- CITY FORCES TO OPERATE ALL VALVES, INCLUDING FIRE HYDRANTS, ON EXISTING PUBLIC MAINS.
- NO CONNECTION TO EXISTING WATER LINES SHALL BE MADE WITHOUT AUTHORIZATION FROM THE CITY.
- ALL WATER LINES AND APPURTENANCES SHALL BE INSTALLED IN ACCORDANCE WITH AWWA STANDARDS, OREGON ADMINISTRATIVE RULES (OAR), THE OREGON PLUMBING SPECIALTY CODE (OPSC), AND LOCAL APPROVING JURISDICTION STANDARDS.
- ALL WATER MAINS SHALL BE CLASS 52 DUCTILE IRON. ALL FITTINGS 4-INCHES THROUGH 24-INCHES IN DIAMETER SHALL BE DUCTILE IRON FITTINGS IN CONFORMANCE WITH AWWA C-153 OR AWWA C-110. THE MINIMUM WORKING PRESSURE FOR ALL MJ CAST IRON OR DUCTILE IRON FITTINGS 4-INCHES THROUGH 24-INCH IN DIAMETER SHALL BE 350 PSI FOR MJ FITTINGS AND 250 PSI FOR FLANGED FITTINGS.
- ALL WATER MAINS TO BE INSTALLED WITH A MINIMUM 36 INCH COVER TO FINISH GRADE UNLESS OTHERWISE NOTED OR DIRECTED. WATER SERVICE LINES SHALL BE INSTALLED WITH A MINIMUM 30-INCH COVER. DEEPER DEPTHS MAY BE REQUIRED AS SHOWN ON THE DRAWINGS OR TO AVOID OBSTRUCTIONS AND CONFLICTS.
- THRUST RESTRAINT SHALL BE PROVIDED ON ALL BENDS, TEES AND OTHER DIRECTION CHANGES PER LOCAL JURISDICTION REQUIREMENTS AND AS SPECIFIED OR SHOWN ON THE DRAWINGS. ALL RESTRAINED MECHANICAL JOINT FITTINGS SHALL INCLUDE THE REQUIRED NUMBER OF PUSH-ON PIPE JOINT RESTRAINTS TO OBTAIN THE NECESSARY PIPE RESTRAINED LENGTH.
- ALL VALVES SHALL BE FLANGE CONNECTED TO ADJACENT TEES OR CROSSES, UNLESS OTHERWISE SHOWN OR APPROVED BY THE ENGINEER.
- WATER SERVICE PIPE ON THE PUBLIC SIDE OF THE METER SHALL CONFORM TO APPROVING AGENCY CONSTRUCTION STANDARDS.
- ALL MATERIALS AND WORKMANSHIP FOR PRIVATE WATER LINES SHALL BE INSTALLED IN CONFORMANCE WITH OPSC AND LOCAL REQUIREMENTS BY A LICENSED PLUMBER.
- DOMESTIC IRRIGATION AND FIRE BACKFLOW PREVENTION DEVICES AND VAULTS SHALL CONFORM TO REQUIREMENTS OF PUBLIC AND/OR PRIVATE AGENCIES HAVING JURISDICTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HAVING BACKFLOW DEVICES TESTED AND CERTIFIED PRIOR TO FINAL ACCEPTANCE OF THE WORK.
- CONTRACTOR SHALL PROVIDE ALL NECESSARY EQUIPMENT AND MATERIALS (INCLUDING PLUGS, BLOWOFFS, VALVES, SERVICE TAPS, ETC.) REQUIRED TO FLUSH, TEST AND DISINFECT WATERLINES PER PUBLIC AGENCY REQUIREMENTS PRIOR TO PLACING INTO SERVICE.
- THE WORK SHALL BE PERFORMED IN A MANNER DESIGNATED TO MAINTAIN WATER SERVICE TO BUILDINGS SUPPLIED FROM THE EXISTING WATERLINES. IN NO CASE SHALL SERVICE TO ANY MAIN LINE OR BUILDING BE INTERRUPTED FOR MORE THAN FOUR (4) HOURS IN ANY ONE-DAY. CONTRACTOR SHALL NOTIFY THE CITY AND ALL AFFECTED RESIDENTS AND BUSINESSES A MINIMUM OF 24 BUSINESS HOURS (1 BUSINESS DAY) BEFORE ANY INTERRUPTION OF SERVICE.
- WHENEVER POSSIBLE THE BOTTOM OF PUBLIC WATER LINES SHALL BE 1.5 FEET OR MORE ABOVE THE TOP OF SANITARY SEWER LINES AT CROSSINGS WITH ONE FULL LENGTH OF THE WATER LINE CENTERED AT THE CROSSING. WHERE SANITARY SEWER LINES CROSS ABOVE OR WITHIN 18-INCHES VERTICAL SEPARATION BELOW A PUBLIC WATER LINE, SEWER MAINS AND/OR SERVICE LATERALS SHALL BE REPLACED WITH A FULL LENGTH OF C900 PVC PIPE (DR 18) CENTERED AT THE CROSSING IN ACCORDANCE WITH OAR 333. CONNECT TO EXISTING SEWER LINES WITH APPROVED RUBBER COUPLINGS.
- A MINIMUM OF TEN FEET (10') HORIZONTAL SEPARATION, MEASURED FROM EDGE-TO-EDGE, IS REQUIRED BETWEEN PUBLIC WATER AND SANITARY SEWER LINES AND MANHOLES. ALL PUBLIC CONSTRUCTION SHALL CONFORM TO DEQ AND OAR 333 REQUIREMENTS FOR SEPARATION.
- PRIVATE WATER LINES SHALL HAVE A MINIMUM OF 12-INCHES CLEAR ABOVE THE TOP OF PRIVATE SANITARY SEWER LINES AND A MINIMUM OF 12-INCHES OF HORIZONTAL SEPARATION IN ACCORDANCE WITH CURRENT OREGON PLUMBING SPECIALTY CODE (OPSC).
- OPENINGS FOR CONNECTIONS TO EXISTING MANHOLES SHALL BE MADE BY CORE-DRILLING THE EXISTING MANHOLE STRUCTURE, AND INSTALLING A RUBBER BOOT. CONNECTIONS SHALL BE WATERIGHT AND SHALL PROVIDE A SMOOTH FLOW INTO AND THROUGH THE MANHOLE WITH NO PONDING. SMALL CHIPPING HAMMERS OR SIMILAR LIGHT TOOLS WHICH WILL NOT DAMAGE OR CRACK THE MANHOLE BASE MAY BE USED TO SHAPE CHANNELS, BUT MAY BE USED TO ENLARGE EXISTING OPENINGS ONLY IF AUTHORIZED IN WRITING BY THE OWNER'S REPRESENTATIVE. USE OF PNEUMATIC JACKHAMMERS SHALL BE PROHIBITED.
- UNLESS OTHERWISE SHOWN IN CONTRACT DOCUMENTS, STORM SEWER PIPE MATERIALS TO CONFORM TO THE CONSTRUCTION DRAWINGS AND CITY REQUIREMENTS. STORM SEWER PIPE MUST BE INSTALLED WITH WATERIGHT JOINTS. CONTRACTOR SHALL USE UNIFORM PIPE MATERIAL ON EACH PIPE RUN BETWEEN STRUCTURES UNLESS OTHERWISE DIRECTED OR APPROVED. JOINED HOPE PIPE SHALL NOT BE USED FOR SLOPES EXCEEDING TEN PERCENT (10%). ALL MATERIALS AND WORKMANSHIP FOR ALL PRIVATE STORM DRAINS SHALL BE INSTALLED IN CONFORMANCE WITH OPSC AND LOCAL JURISDICTION REQUIREMENTS.

STORM PIPE COVER DEPTH	STORM PIPE MATERIAL
(MEASURED FROM FINISH GRADE TO TOP OF PIPE)	
LESS THAN 2 FEET	CLASS 52 DUCTILE IRON PIPE (4"); CLASS 50 DUCTILE IRON PIPE (6" TO 12"; CLASS 51 DUCTILE IRON PIPE (14" TO 18" WITH BELL AND SPIGOT JOINTS AND RUBBER GASKETS.
2 FEET OR MORE	CLASS 3, ASTM C-14 NON-REINFORCED CONCRETE PIPE ASTM 150 TYPE II CEMENT; OR PVC PIPE CONFORMING TO AWWA C900 DR 18 (4" TO 12") OR AWWA C-905 (14" TO 18") WITH BELL AND SPIGOT JOINTS AND RUBBER GASKETS. 21" TO 30" PIPE SHALL BE CLASS IV, ASTM C-76 REINFORCED CONCRETE PIPE WITH BELL AND SPIGOT JOINTS AND RUBBER GASKETS WITH ASTM 150 TYPE II CEMENT.
2.5 FEET OR MORE	PVC PIPE CONFORMING TO ASTM D-3034 SOLID WALL PVC SDR 35 WITH BELL AND SPIGOT JOINTS AND RUBBER GASKETS (4" TO 18"); OR HDPE ADS N-12 IB ST, HANCOR SURE-LOK F477 PIPE SHALL BE INSTALLED FOR PIPE SLOPES LESS THAN 6% (6" TO 30") AND HDPE ADS N-12 IB WT, HANCOR BLUE SEAL PIPE SHALL BE INSTALLED FOR PIPE SLOPES GREATER THAN OR EQUAL TO 6% BUT LESS THAN 10% (6" TO 30"). HOPE PIPE IF USED SHALL CONFORM TO AASHTO M-252 (8" TO 10") OR AASHTO M-294 (12" TO 30").

- CONTRACTOR SHALL DESIGNATE THE PIPE MATERIAL ACTUALLY INSTALLED ON THE FIELD RECORD DRAWINGS AND PROVIDE THIS INFORMATION FOR INCLUSION ON THE AS-BUILT DRAWINGS.
- STORM DRAIN INLETS SHALL BE SET SQUARE WITH BUILDINGS OR WITH THE EDGE OF THE PARKING LOT OR STREET WHEREIN THEY LIE. STORM DRAIN INLET STRUCTURES AND PAVING SHALL BE ADJUSTED SO WATER FLOWS INTO THE STRUCTURE WITHOUT PONDING WATER.
- UNLESS OTHERWISE APPROVED BY THE ENGINEER, ALL STORM DRAIN CONNECTIONS SHALL BE BY MANUFACTURED TEES, WYES OR SADDLES.
- UNLESS OTHERWISE SHOWN ON THE DRAWINGS, ALL STORM PIPE INLETS & OUTFALLS SHALL BE BEVELED FLUSH TO MATCH THE SLOPE WHEREIN THEY LIE.
- DEFLECT STORM SEWER PIPE INTO CATCH BASINS AND MANHOLES AS REQUIRED. MAXIMUM JOINT DEFLECTION SHALL NOT EXCEED 5 DEGREES OR MANUFACTURER'S RECOMMENDATIONS, WHICHEVER IS LESS.
- UNLESS OTHERWISE SHOWN OR DIRECTED, INSTALL STORM SEWER PIPE IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION GUIDELINES.
- BEFORE MANDREL TESTING OR FINAL ACCEPTANCE, FLUSH AND CLEAN ALL STORM DRAINS, AND REMOVE ALL FOREIGN MATERIAL FROM THE PIPES, MANHOLES AND CATCH BASINS.
- CONTRACTOR SHALL CONDUCT DEFLECTION TEST OF FLEXIBLE STORM SEWER PIPES BY PULLING AN APPROVED MANDREL THROUGH THE COMPLETED PIPELINE FOLLOWING TRENCH COMPACTION. THE DIAMETER OF THE MANDREL SHALL BE 95% OF THE INITIAL PIPE DIAMETER. TEST SHALL BE CONDUCTED NOT MORE THAN 30 DAYS AFTER THE TRENCH BACKFILLING AND COMPACTION HAS BEEN COMPLETED.
- UPON COMPLETION OF ALL STORM SEWER CONSTRUCTION, TESTING, AND REPAIR THE CONTRACTOR SHALL CONDUCT A COLOR TV ACCEPTANCE INSPECTION OF ALL PUBLIC MAINLINES IN ACCORDANCE WITH OSSC (000T/APWA) 445.74 TO DETERMINE COMPLIANCE WITH GRADE REQUIREMENTS OF OSSC (000T/APWA) 445.40.B. THE TV INSPECTION SHALL BE CONDUCTED BY AN APPROVED TECHNICAL SERVICE, WHICH IS EQUIPPED TO MAKE AUDIO-VISUAL RECORDINGS OF THE TV INSPECTIONS. UNLESS OTHERWISE REQUIRED BY AGENCY WITH JURISDICTION, A STANDARD 1-INCH DIAMETER BALL SHALL BE SUSPENDED IN FRONT OF THE CAMERA DURING THE INSPECTION. SUFFICIENT WATER TO REVEAL LOW AREAS OR REVERSE GRADES SHALL BE DISCHARGED INTO THE PIPE IMMEDIATELY BEFORE INITIATION OF THE TV INSPECTION. THE RECORDING AND WRITTEN REPORT SHALL BE DELIVERED TO THE CITY.
- CONTRACTOR SHALL COORDINATE WITH POWER, TELEPHONE AND CABLE TV COMPANIES FOR LOCATION OR RELOCATION OF VAULTS, PEDESTALS, ETC. ALL ABOVE-GRADE FACILITIES SHALL BE PLACED IN A LOCATION OUTSIDE THE PROPOSED SIDEWALK LOCATION.
- CONTRACTOR SHALL NOTIFY AND COORDINATE WITH FRANCHISE UTILITIES FOR REMOVAL OR RELOCATION OF POWER POLES, VAULTS, PEDESTALS, MANHOLES, ETC. TO AVOID CONFLICT WITH CITY UTILITY STRUCTURES, FIRE HYDRANTS, METERS, SEWER OR STORM LATERALS, ETC.
- ALL FRANCHISE UTILITY STRUCTURES (VAULTS, PEDESTALS, LIGHT POLES, ETC.) SHALL BE SET A MINIMUM OF 1 FOOT FROM ANY PROPERTY CORNER OR SURVEY MONUMENT.

AKS DRAWING FILE: 7580_C01_NOTES.DWG | LAYOUT: C0.1A CONSTRUCTION NOTES



RESERVOIR #2 ACCESS IMPROVEMENTS

CONSTRUCTION NOTES

DESIGNED BY: _____
 DRAWN BY: PCB
 MANAGED BY: BGC
 CHECKED BY: BGC
 DATE: 5/20/2020

REVISIONS:

JOB NUMBER
7580

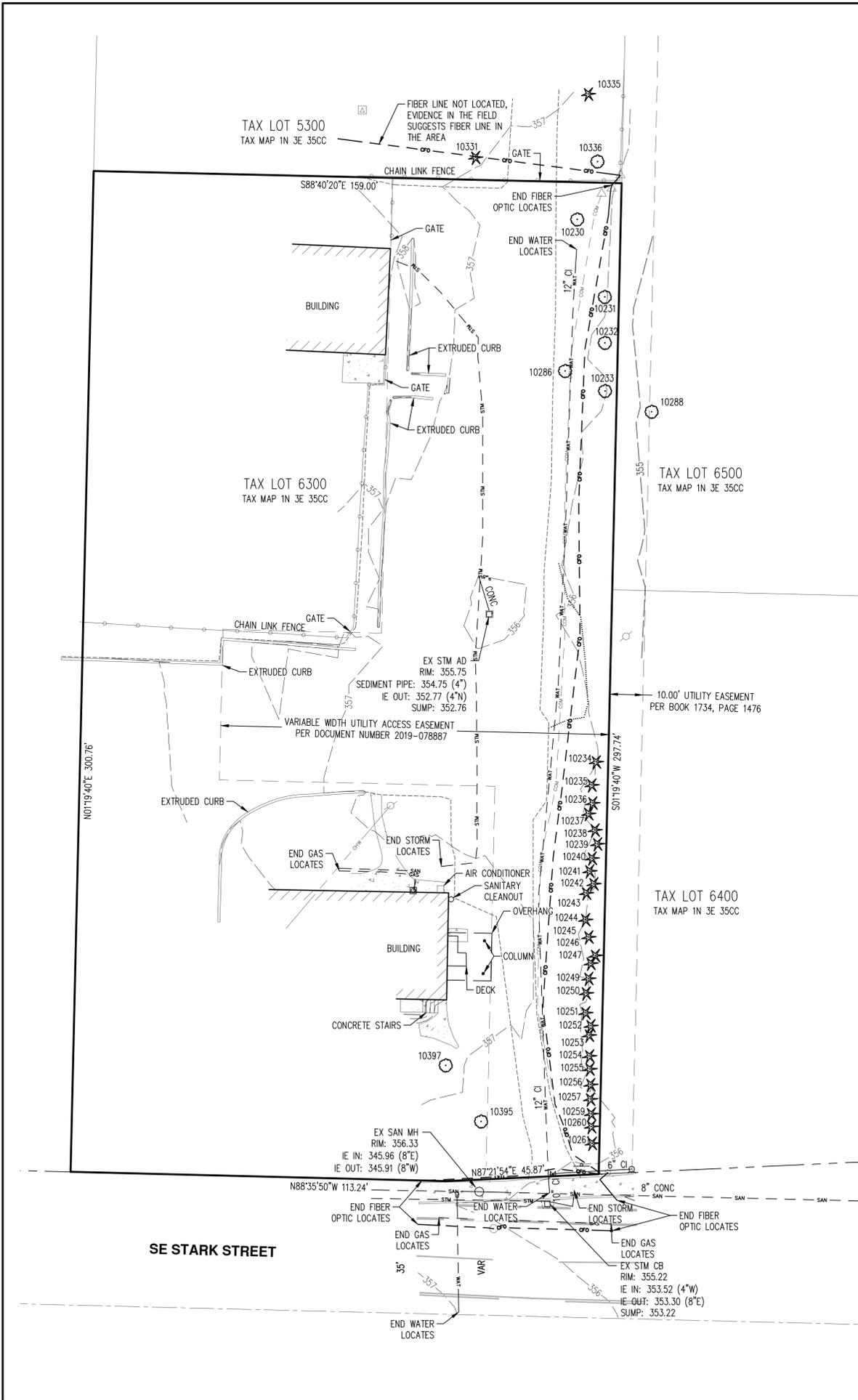
SHEET
C0.1A

AKS ENGINEERING & FORESTRY, LLC
 17065 SW HERMAN RD, STE 100
 TUALATIN, OR 97062
 503.563.6151
 WWW.AKS-ENG.COM

ENGINEERING - SURVEYING - NATURAL RESOURCES
 FORESTRY - PLANNING - LANDSCAPE ARCHITECTURE

TROUTDALE OREGON
 MULTNOMAH COUNTY TAX MAP IN 3E 350C
 TAX LOT 6300

AKS DRAWING FILE: 7580 CO.2 EXISTING LAYOUT; CO.2 EXISTING CONDITIONS PLAN



TREE TABLE		
TREE NUMBER	TYPE	DBH (IN.)
10230	DECIDUOUS	5,5,7
10231	DECIDUOUS	8,8,15
10232	DECIDUOUS	8,11
10233	DECIDUOUS	9,10,12
10234	CONIFEROUS	22,31
10235	CONIFEROUS	31
10236	CONIFEROUS	7,8
10237	CONIFEROUS	26
10238	CONIFEROUS	10
10239	CONIFEROUS	25
10240	CONIFEROUS	8
10241	CONIFEROUS	16
10242	CONIFEROUS	16
10243	CONIFEROUS	9,19,23
10244	CONIFEROUS	15,20
10245	CONIFEROUS	15,20
10246	CONIFEROUS	22
10247	CONIFEROUS	14
10249	CONIFEROUS	11

TREE TABLE		
TREE NUMBER	TYPE	DBH (IN.)
10250	CONIFEROUS	24,26
10251	CONIFEROUS	7,7,12
10252	CONIFEROUS	8
10253	CONIFEROUS	21,23
10254	CONIFEROUS	16,17
10255	CONIFEROUS	19
10256	CONIFEROUS	16
10257	CONIFEROUS	20
10259	CONIFEROUS	25
10260	CONIFEROUS	17
10261	CONIFEROUS	31
10286	DECIDUOUS	19
10288	DECIDUOUS	12
10331	CONIFEROUS	17
10335	CONIFEROUS	24
10336	DECIDUOUS	8
10395	DECIDUOUS	5,7,8
10397	DECIDUOUS	10,14,15

NOTES:

- UTILITIES SHOWN ARE BASED ON UNDERGROUND UTILITY LOCATE MARKINGS AS PROVIDED BY OTHERS, PROVIDED PER UTILITY LOCATE TICKET NUMBER 19205577 AND PACIFIC NW LOCATING LLC. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND LOCATES REPRESENT THE ONLY UTILITIES IN THE AREA. CONTRACTORS ARE RESPONSIBLE FOR VERIFYING ALL EXISTING CONDITIONS PRIOR TO BEGINNING CONSTRUCTION.
- FIELD WORK WAS CONDUCTED JULY 30, 2019.
- HORIZONTAL DATUM: A LOCAL DATUM PLANE DERIVED FROM STATE PLANE OREGON NORTH 3601 NAD83(2011) EPOCH: 2010.0000 BY MULTIPLYING BY A PROJECT MEAN GROUND COMBINED SCALE FACTOR OF 10001001573 AT A CENTRAL PROJECT POINT WITH INTERNATIONAL FOOT STATE PLANE GRID COORDINATES N81321.810 E7712572.051 AND A MERIDIAN CONVERGENCE ANGLE OF -121'17". STATE PLANE COORDINATES WERE DERIVED FROM GPS OBSERVATIONS USING THE TRIMBLE VRS NOW NETWORK. DISTANCES SHOWN ARE INTERNATIONAL FOOT GROUND VALUES.
- VERTICAL DATUM: ELEVATIONS ARE BASED ON NGS BENCHMARK NO. RD1601, LOCATED APPROXIMATELY 100 FEET SE OF THE EAST BOUND CENTERLINE OF I84 AND 100 FEET NW OF W HISTORIC COLUMBIA RIVER HWY ELEVATION = 68.52 FEET (NAVD 88).
- THIS IS NOT A BOUNDARY SURVEY TO BE RECORDED WITH THE COUNTY. BOUNDARIES MAY BE PRELIMINARY AND SHOULD BE CONFIRMED WITH THE STAMPING SURVEYOR PRIOR TO RELYING ON FOR DETAILED DESIGN OR CONSTRUCTION.
- BUILDING FOOTPRINTS ARE MEASURED TO SIDING UNLESS NOTED OTHERWISE. CONTACT SURVEYOR WITH QUESTIONS REGARDING BUILDING TIES.
- CONTOUR INTERVAL IS 1 FOOT.
- TREES WITH DIAMETER OF 5" AND GREATER ARE SHOWN. TREE DIAMETERS WERE MEASURED UTILIZING A DIAMETER TAPE AT BREAST HEIGHT. TREE INFORMATION IS SUBJECT TO CHANGE UPON ARBORIST INSPECTION.

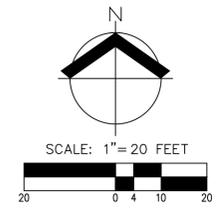
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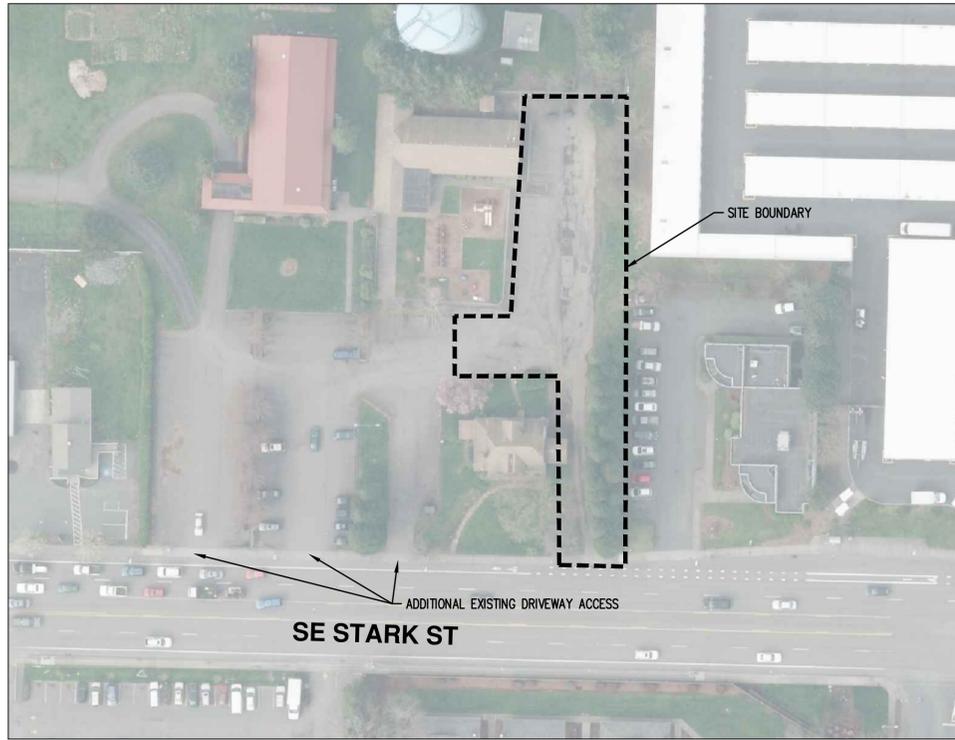
RESERVOIR #2 ACCESS IMPROVEMENTS
TROUTDALE OREGON
 TAX LOT 6300

EXISTING CONDITIONS PLAN

DESIGNED BY: _____
 DRAWN BY: PCB
 MANAGED BY: BCC
 CHECKED BY: NW
 DATE: 09/27/2019
 REGISTERED PROFESSIONAL LAND SURVEYOR

 NICK WHITE
 JANUARY 9, 2007
 70652LS
 RENEWS: 6/30/20
 REVISIONS: _____
 JOB NUMBER: 7580
 SHEET: C0.2



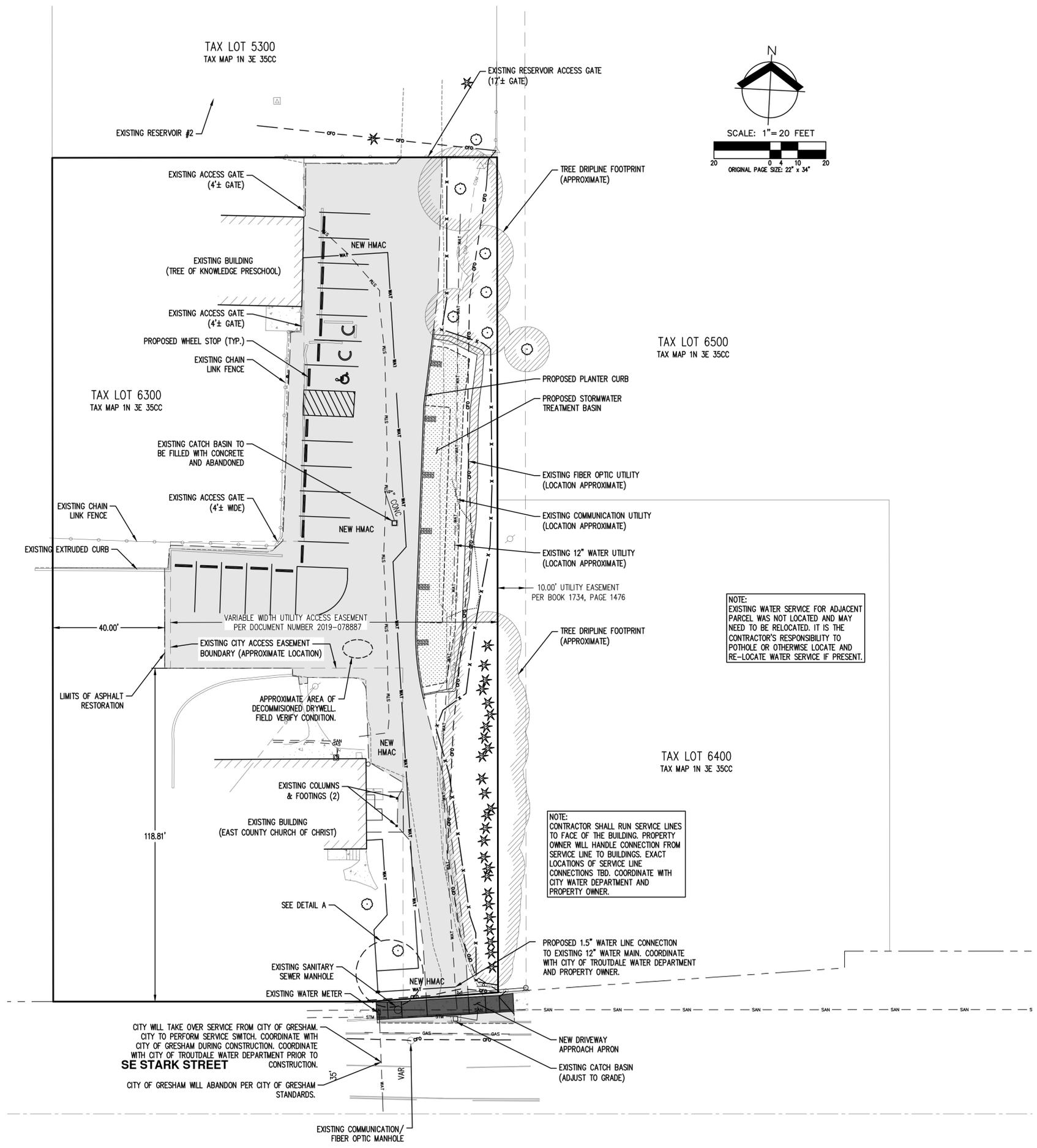
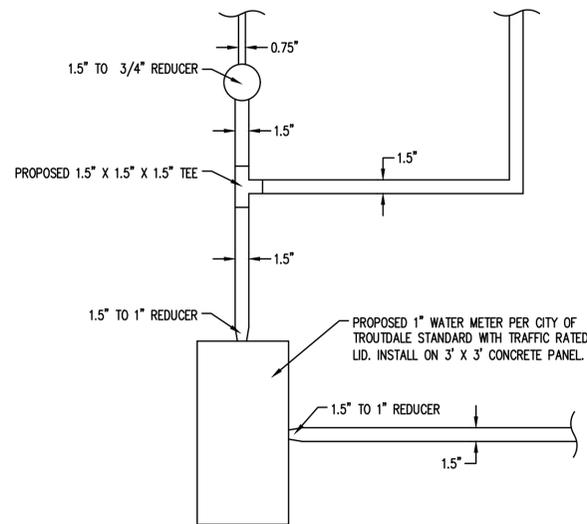


VICINITY MAP

SCALE: 1" = 60'

DETAIL A

NTS



NOTE: EXISTING WATER SERVICE FOR ADJACENT PARCEL WAS NOT LOCATED AND MAY NEED TO BE RELOCATED. IT IS THE CONTRACTOR'S RESPONSIBILITY TO POTHOLE OR OTHERWISE LOCATE AND RE-LOCATE WATER SERVICE IF PRESENT.

NOTE: CONTRACTOR SHALL RUN SERVICE LINES TO FACE OF THE BUILDING. PROPERTY OWNER WILL HANDLE CONNECTION FROM SERVICE LINE TO BUILDINGS. EXACT LOCATIONS OF SERVICE LINE CONNECTIONS TBD. COORDINATE WITH CITY WATER DEPARTMENT AND PROPERTY OWNER.

CITY WILL TAKE OVER SERVICE FROM CITY OF GRESHAM. CITY TO PERFORM SERVICE SWITCH. COORDINATE WITH CITY OF GRESHAM DURING CONSTRUCTION. COORDINATE WITH CITY OF TROUTDALE WATER DEPARTMENT PRIOR TO CONSTRUCTION.
SE STARK STREET
 CITY OF GRESHAM WILL ABANDON PER CITY OF GRESHAM STANDARDS.

AKS DRAWING FILE: 7580_CO.3_SITELANDING | LAYOUT: CO.3 COMPOSITE SITE PLAN

AKS
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RESERVOIR #2 ACCESS IMPROVEMENTS
 TROUTDALE OREGON
 MULTNOMAH COUNTY TAX MAP IN 3E 35CC
 TAX LOT 6300

COMPOSITE SITE PLAN

DESIGNED BY:
 DRAWN BY: PCB
 MANAGED BY: BGC
 CHECKED BY: BGC

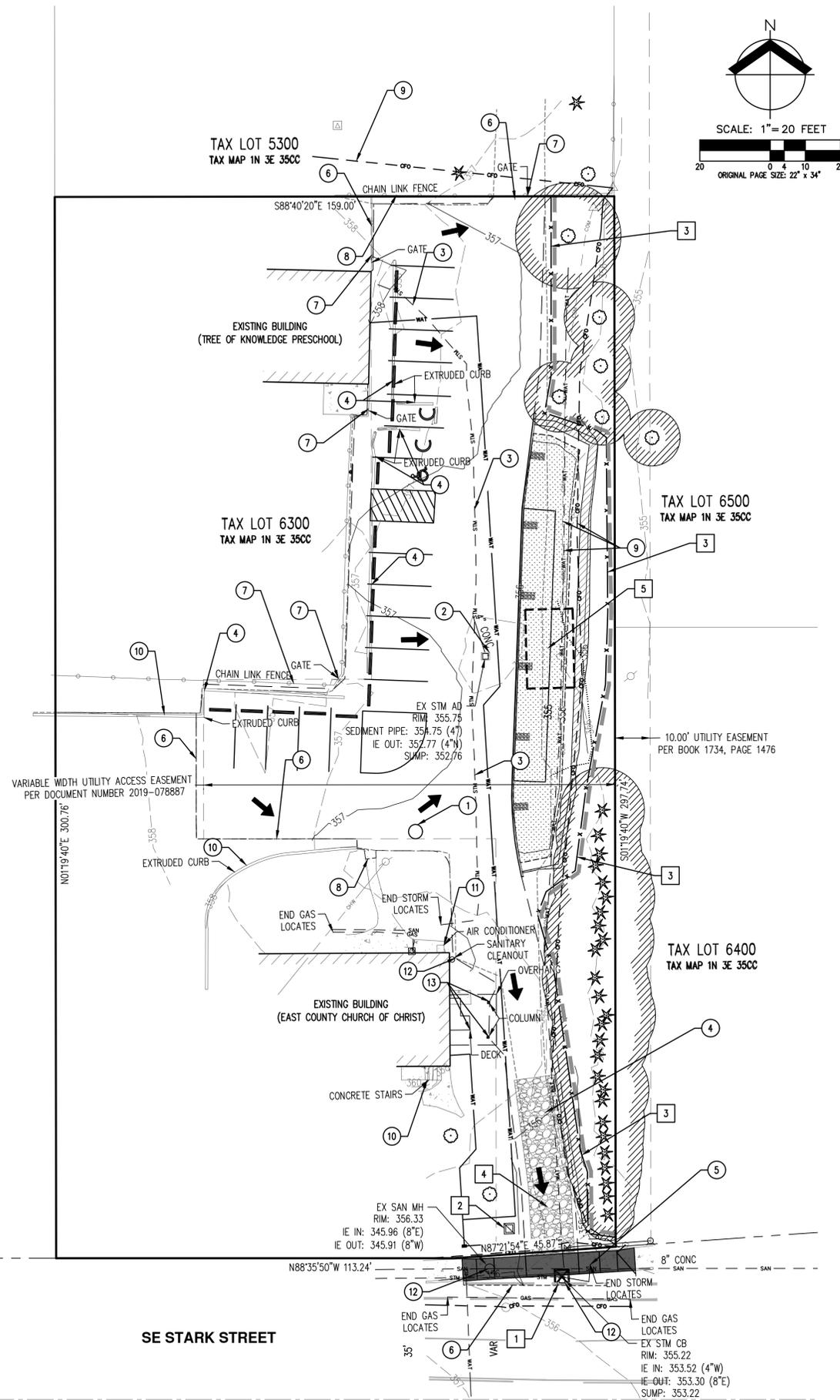
DATE: 5/20/2020
 REGISTERED PROFESSIONAL ENGINEER
 82830PE
 OREGON
 APRIL 8, 2009
 BLAIR G. CARLSON

REVISIONS:

JOB NUMBER
 7580

SHEET
C0.3

AKS DRAWING FILE: 7580_C1.0_ESC_CLEARING_LAYOUT; C1.0_CLEARING_DEMO & EROSION CONTROL PLAN



DEMOLITION KEYED NOTES:

1. DRYWELL DECOMMISSIONED BY OTHERS. CONTRACTOR TO FIELD VERIFY CONDITION.
2. FILL EXISTING CATCH BASIN WITH CONCRETE AND ABANDON.
3. ABANDON & FILL (CDF OR CONCRETE) OR REMOVE EXISTING STORM PIPES.
4. REMOVE EXISTING ASPHALT LOT/DRIVEWAY & CONCRETE EXTRUDED CURB
5. REMOVE EXISTING CONCRETE DRIVEWAY APRON.
6. SAWCUT EXISTING ASPHALT AS SHOWN IN CLEAN, STRAIGHT LINES. SAWCUT TO BE FIELD-VERIFIED BY CITY/COUNTY.
7. PROTECT EXISTING GATE/FENCE.
8. SAWCUT EXISTING CONCRETE AS SHOWN IN CLEAN, STRAIGHT LINE.
9. CONTRACTOR TO VERIFY LOCATION OF EXISTING UTILITY LINES. POTHOLING MAY BE REQUIRED.
10. PROTECT EXISTING CONCRETE STAIRS & EXTRUDED CURBS.
11. PROTECT EXISTING AIR CONDITIONER.
12. PROTECT EXISTING STORM & SANITARY SEWER STRUCTURES
13. PROTECT EXISTING CHURCH FRONTAGE STRUCTURES

EROSION CONTROL KEYED NOTES:

1. INSTALL CATCH BASIN INLET PROTECTION ESC BMPs. SEE DETAILS, SHEET C1.1.
2. INSTALL CONCRETE WASHOUT & POLLUTION PREVENTION BMPs. SEE DETAILS, SHEET C1.1
3. INSTALL SEDIMENT FENCE ESC BMPs. SEE DETAILS, SHEET C1.1.
4. INSTALL CONSTRUCTION ENTRANCE PER DETAIL II-26, SHEET C1.1.
5. CONSTRUCT TEMPORARY SEDIMENT TRAP PER DETAIL X-10, SHEET C1.1. BOTTOM OF TRAP SHALL BE NO LOWER IN ELEVATION THAN 354.00. BOTTOM DIMENSIONS: 0.5'W X 3'L 3:1 MAX. SIDE SLOPES

NOTE: THE EXISTING SITE ENTRANCE IS PAVED.

GENERAL PRE-CONSTRUCTION, CLEARING, & DEMOLITION NOTES:

1. CONTRACTOR TO COORDINATE WITH THE CHURCH AND SCHOOL ADJACENT TO THE SITE PRIOR TO START OF ANY DEMOLITION, CLEARING, OR GRADING ACTIVITY.
2. CONTRACTOR TO VERIFY LOCATION OF ALL EXISTING UTILITIES ON-SITE PRIOR TO START OF CONSTRUCTION.

CITY OF TROUTDALE STANDARD NOTES – EROSION CONTROL

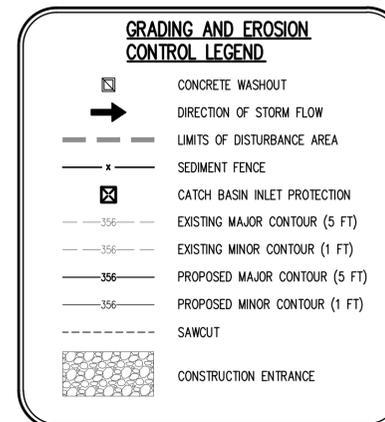
1. APPROVAL OF THIS EROSION/SEDIMENTATION CONTROL (ESC) PLAN DOES NOT CONSTITUTE AN APPROVAL OF PERMANENT ROAD OR DRAINAGE DESIGN (E.G., SIZE AND LOCATION OF ROADS, PIPES, RESTRICTORS, CHANNELS, RETENTION FACILITIES, UTILITIES, ETC.)
2. THE IMPLEMENTATION OF THESE ESC PLANS AND THE CONSTRUCTION, MAINTENANCE, REPLACEMENT, AND UPGRADING OF THESE ESC FACILITIES IS THE RESPONSIBILITY OF THE APPLICANT/CONTRACTOR UNTIL ALL CONSTRUCTION IS COMPLETED AND APPROVED AND VEGETATION/LANDSCAPING IS ESTABLISHED.
3. THE BOUNDARIES OF THE CLEARING LIMITS SHOWN ON THIS PLAN SHALL BE CLEARLY FLAGGED IN THE FIELD PRIOR TO CONSTRUCTION. DURING THE CONSTRUCTION PERIOD, NO DISTURBANCE BEYOND THE FLAGGED CLEARING LIMITS SHALL BE PERMITTED. THE FLAGGING SHALL BE MAINTAINED BY THE APPLICANT/CONTRACTOR FOR THE DURATION OF CONSTRUCTION.
4. THE ESC FACILITIES SHOWN ON THE CONSTRUCTION PLANS MUST BE CONSTRUCTED IN CONJUNCTION WITH ALL CLEARING AND GRADING ACTIVITIES, AND IN SUCH A MANNER AS TO INSURE THAT SEDIMENT AND SEDIMENT LADEN WATER DO NOT ENTER THE DRAINAGE SYSTEM, ROADWAYS, OR VIOLATE APPLICABLE WATER STANDARDS.
5. THE ESC FACILITIES SHOWN ON THIS PLAN ARE THE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD, THESE ESC FACILITIES SHALL BE UPGRADED AS NEEDED FOR UNEXPECTED STORM EVENTS AND TO ENSURE THAT SEDIMENT AND SEDIMENT-LADEN WATER DO NOT LEAVE THE SITE.
6. THE ESC FACILITIES SHALL BE INSPECTED DAILY BY THE APPLICANT/CONTRACTOR AND MAINTAINED AS NECESSARY TO ENSURE THEIR CONTINUED FUNCTIONING.
7. 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.
8. 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 DOWNSYSTEM SYSTEM.
9. STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT THE BEGINNING OF CONSTRUCTION AND MAINTAINED FOR THE DURATION OF THE PROJECT. ADDITIONAL MEASURES MAY BE REQUIRED TO INSURE THAT ALL PAVED AREAS ARE KEPT CLEAN FOR THE DURATION OF THE PROJECT.
10. BEFORE REMOVAL OF EROSION CONTROL MEASURES, VEGETATION MUST BE RE-ESTABLISHED.

DESIGN CRITERIA/SPECIFICATIONS:

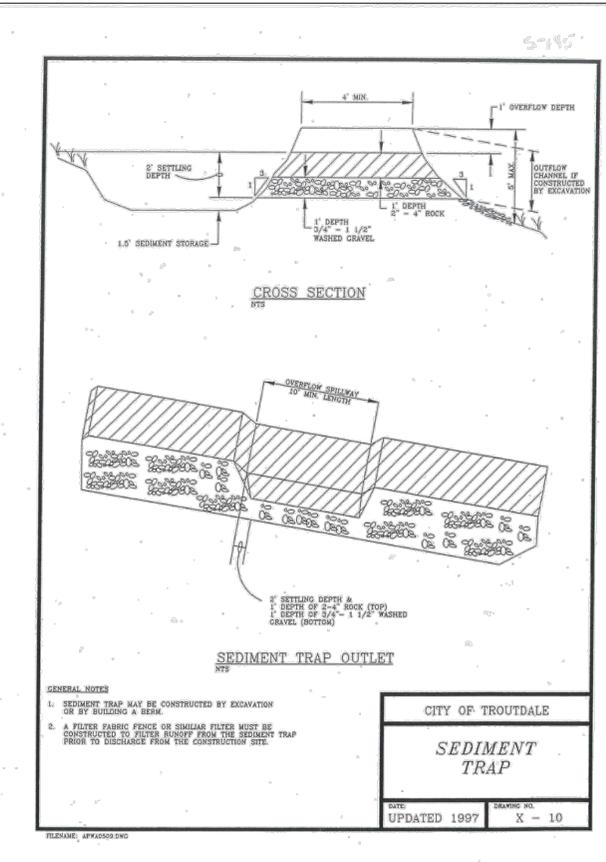
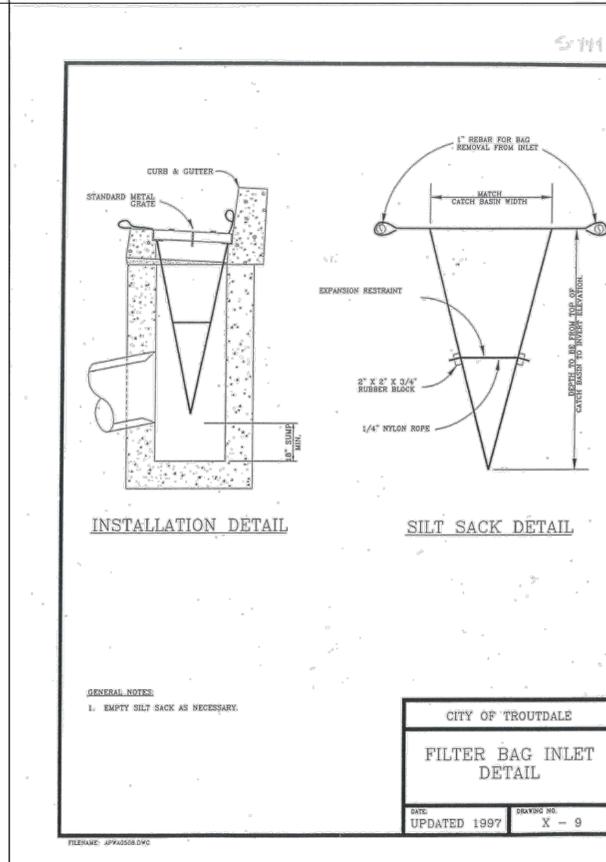
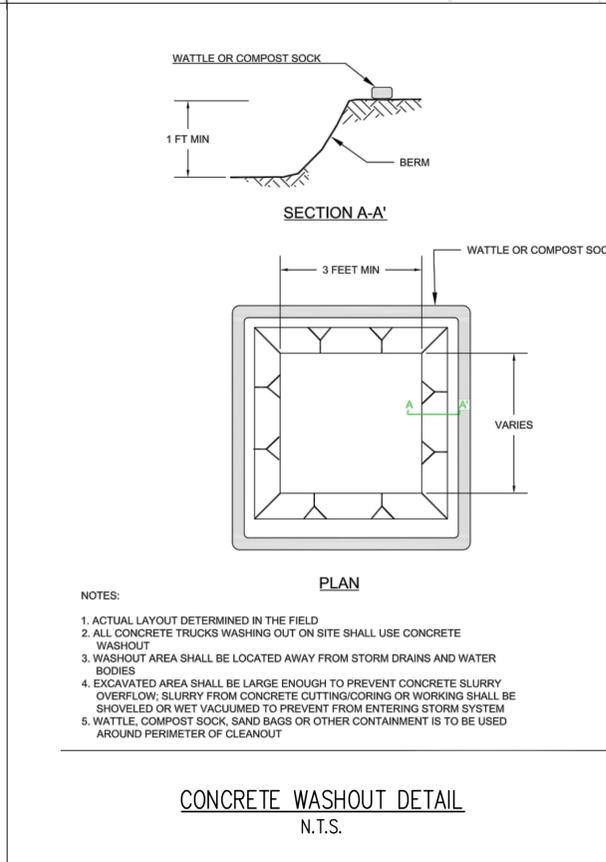
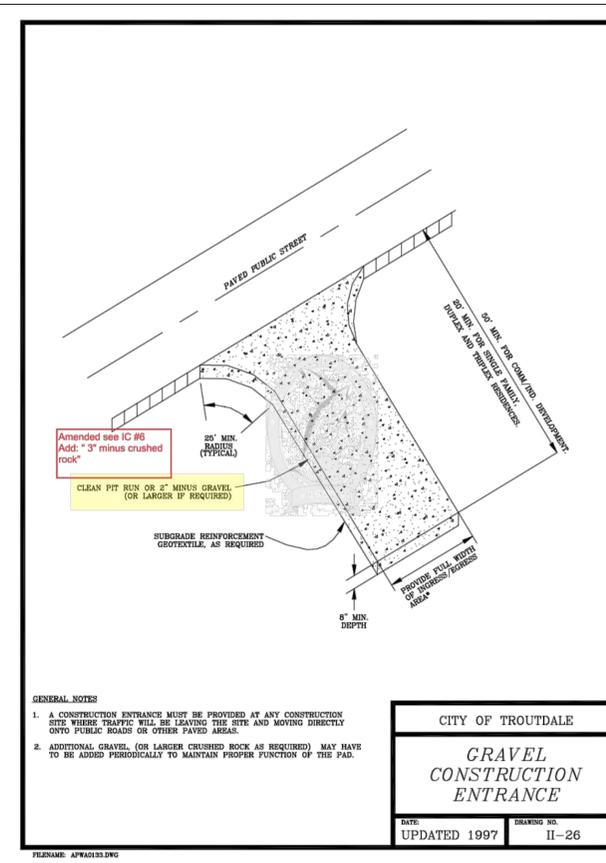
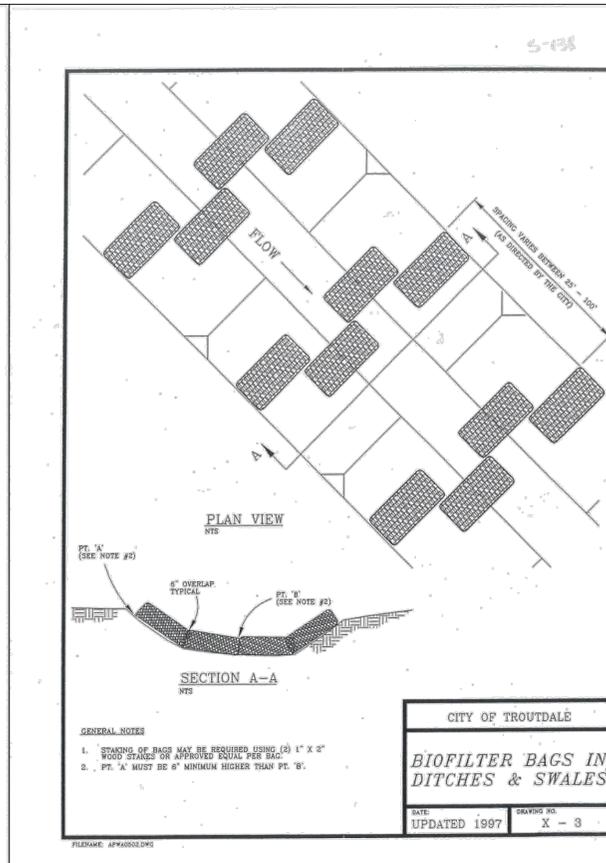
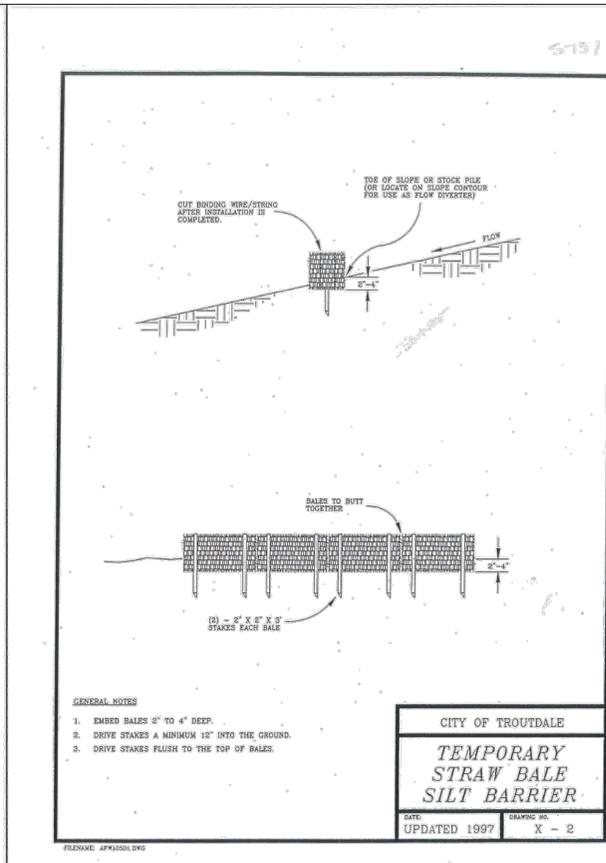
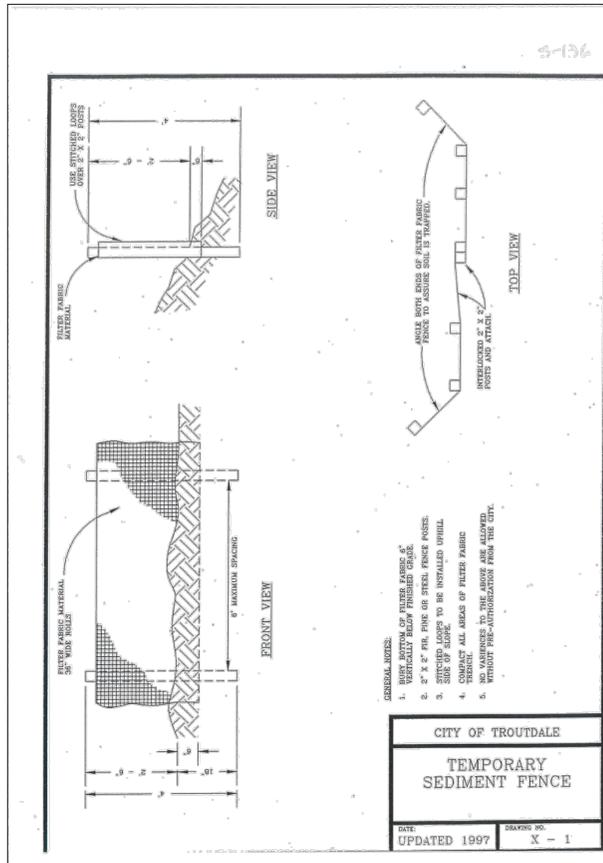
TEMPORARY EROSION CONTROL GRASSES

1. TEMPORARY GRASS COVER MEASURES MUST BE FULLY ESTABLISHED BY NOVEMBER 1 OR OTHER COVER MEASURES WILL HAVE TO BE IMPLEMENTED UNTIL ADEQUATE GRASS COVERAGE IS ACHIEVED. TO ESTABLISH AN ADEQUATE GRASS STAND FOR CONTROLLING EROSION BY NOVEMBER 1, SEEDING MEASURES MUST OCCUR BY SEPTEMBER 1.
2. HYDROMULCH SHALL BE APPLIED WITH GRASS SEED AT A RATE OF 2000 LB./ACRE. (SEED MUST BE APPLIED AT 200 LB./ACRE. REFER TO SEEDING NOTES BELOW) ON SLOPES STEEPER THAN 10 PERCENT. HYDROSEED AND MULCH SHALL BE APPLIED WITH A BONDING AGENT (TACKIFIER). APPLICATION RATE AND METHODOLOGY TO BE IN ACCORDANCE WITH SEED SUPPLIER RECOMMENDATIONS.
3. IF STRAW IS USED IN CONJUNCTION WITH HYDROMULCH, IT MUST BE DRY, LOOSE, WEED-FREE, AND APPLIED AT A RATE OF 4000 LB./ACRE. ANCHOR STRAW BY WORKING IN BY HAND OR WITH EQUIPMENT (ROLLERS, CLEAT TRACKS, ETC.).
4. STRAW MULCH SHALL BE SPREAD UNIFORMLY IMMEDIATELY FOLLOWING SEEDING.
5. SOIL PREPARATION – TOP SOIL SHOULD BE PREPARED ACCORDING TO LANDSCAPE PLANS, IF AVAILABLE, OR RECOMMENDATIONS OF GRASS SEED SUPPLIER. IT IS RECOMMENDED THAT SLOPES BE ROUGHENED BEFORE SEEDING BY "TRACK-WALKING," (DRIVING A CRAWLING TRACTOR UP AND DOWN SLOPES TO LEAVE A PATTERN OF CLEAT IMPRINTS PARALLEL TO SLOPE CONTOURS) OR OTHER METHOD TO PROVIDE MORE STABLE SITES FOR SEEDS TO REST.
6. SEEDING – REQUIRED SEED MIXES ARE AS FOLLOWS. SIMILAR MIXES MAY BE SUBSTITUTED IF APPROVED BY THE CITY AND STILL TOTAL 200 LB./ACRE. A. DWARF GRASS MIX (LOW HEIGHT, LOW MAINTENANCE): DWARF PERENNIAL RYEGRASS, 80% BY WEIGHT; CREEPING RED FESCUE, 20% BY WEIGHT; APPLICATION RATE: 100 POUNDS MINIMUM PER ACRE. B. STANDARD HEIGHT GRASS MIX: ANNUAL RYEGRASS, 40% BY WEIGHT; TURF-TYPE FESCUE, 60% BY WEIGHT; APPLICATION RATE: 100 POUNDS MINIMUM PER ACRE.
7. FERTILIZATION FOR GRASS SEED – IN ACCORDANCE WITH SUPPLIER'S RECOMMENDATIONS. DEVELOPMENT AREAS WITHIN 50 FEET OF WATER BODIES AND WETLANDS MUST USE A NONPHOSPHORUS FERTILIZER.
8. WATERING – SEEDING SHALL BE SUPPLIED WITH ADEQUATE MOISTURE TO ESTABLISH GRASS. SUPPLY WATER AS NEEDED, ESPECIALLY IN ABNORMALLY HOT OR DRY WEATHER OR ON ADVERSE SITES. WATER APPLICATION RATES SHOULD BE CONTROLLED TO PROVIDE ADEQUATE MOISTURE WITHOUT CAUSING RUNOFF.
9. RE-SEEDING – AREAS WHICH FAIL TO ESTABLISH GRASS COVER ADEQUATE TO PREVENT EROSION SHALL BE RE-SEEDED AS SOON AS SUCH AREAS ARE IDENTIFIED, AND ALL APPROPRIATE MEASURES TAKEN TO ESTABLISH ADEQUATE COVER.

DISTURBED AREA: 16,240 SF (0.37 AC)



AKS DRAWING FILE: 7580 C1.1 ESC_DTL.DWG LAYOUT: C1.1 EROSION & SEDIMENT CONTROL PLAN DETAILS



RESERVOIR #2 ACCESS IMPROVEMENTS
TROUTDALE OREGON
MULTNOHAW COUNTY TAX MAP IN 3E 350C
TAX LOT 6300

EROSION & SEDIMENT CONTROL PLAN DETAILS

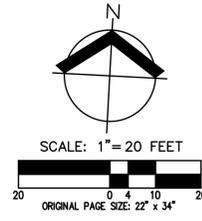
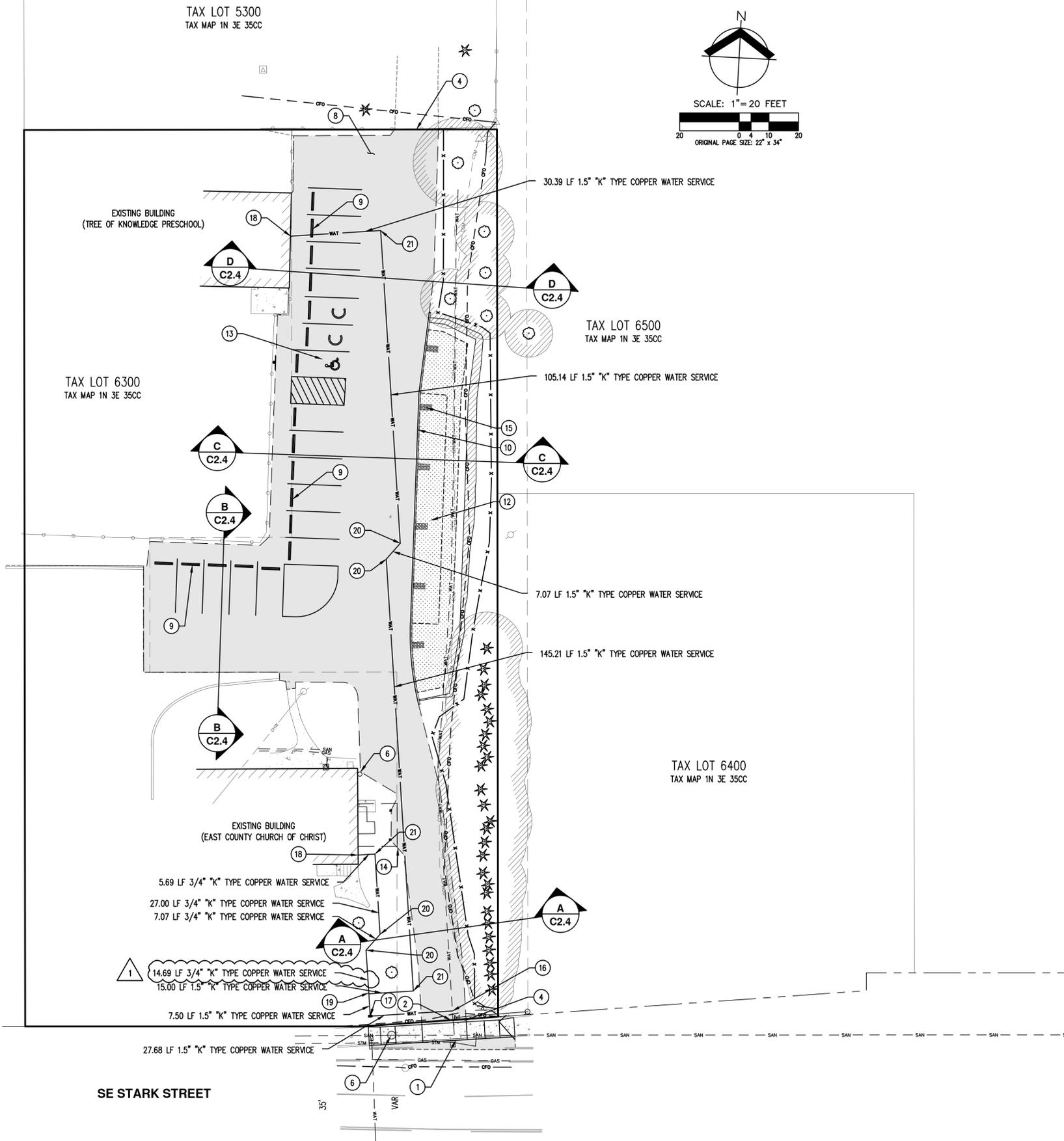
DESIGNED BY: _____
 DRAWN BY: PCB
 MANAGED BY: BCC
 CHECKED BY: BCC
 DATE: 5/20/2020

REGISTERED PROFESSIONAL ENGINEER
 82830PE
 OREGON
 APRIL 8, 2009
 BLAIR G. CARLSON

REVISIONS: _____

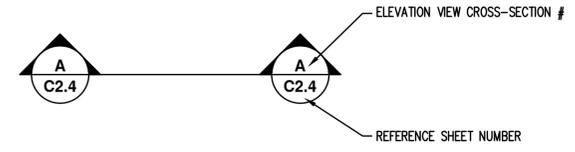
JOB NUMBER
 7580
 SHEET
 C1.1

AKS DRAWING FILE: 7580_C2.0_LOT_CONSTR.DWG | LAYOUT: C2.0 SITE CONSTRUCTION PLAN



SITE CONSTRUCTION KEYED NOTES:

1. INSTALL NEW 15' WIDE DRIVEWAY DROP PER ODOT STANDARD DRAWING RD750 OPTION N ON SHEET C4.2.
 2. CONTRACTOR TO MAINTAIN SITE ACCESS DURING CONSTRUCTION.
 3. NOT USED.
 4. ASPHALT DRIVEWAY INSTALLATION PER SECTION ON SHEET C2.4. MATCH EXISTING IMPROVEMENTS ELEVATION.
 5. NOT USED.
 6. ADJUST EXISTING SANITARY SEWER STRUCTURE RIM GRADE TO MATCH ADJACENT PAVEMENT OR SIDEWALK.
 7. NOT USED.
 8. LIMITS OF PARKING LOT IMPROVEMENTS. ENGINEER TO VERIFY ALL EXTENTS.
 9. INSTALL WHEEL STOP PER DETAIL 2/SITE ON SHEET C4.0 (TYP).
 10. INSTALL CONCRETE CURB WALL PER DETAIL 13/SRF ON C4.0. MAINTAIN 6" EXPOSURE ON PARKING SIDE.
 11. INSTALL ASPHALT TO CONNECT RESERVOIR ACCESS. MATCH GRADE AND GATE WIDTH.
 12. INSTALL STORM BASIN PER STORM DETAILS ON SHEET C3.0.
 13. STRIPING PER STRIPING PLAN ON SHEET C2.3.
 14. INSTALL ASPHALT TO MATCH EXISTING SURFACE GRADE AT FOOTINGS.
 15. ROCK PROTECTION (TYP). SEE SHEET C3.0.
 16. INSTALL WATER LINE CONNECTION WITH DOUBLE CHECK BACKFLOW PREVENTER DEVICE VAULT PER COT STANDARD DETAIL IV-16 ON SHEET 4.1.
 17. INSTALL 1" WATER METER PER COT STANDARD DETAIL IV-9 ON SHEET 4.1.
18. CONTRACTOR SHALL RUN SERVICE LINES TO FACE OF THE BUILDING. PROPERTY OWNER WILL HANDLE CONNECTION FROM SERVICE LINE TO BUILDINGS. EXACT LOCATIONS OF SERVICE LINE CONNECTIONS TBD. COORDINATE WITH CITY WATER DEPARTMENT AND PROPERTY OWNER.
19. INSTALL 1.5" X 1.5" X 3/4" WATER TEE.
 20. INSTALL 45° HORIZONTAL ELBOW BEND.
 21. INSTALL 90° HORIZONTAL ELBOW BEND.



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RESERVOIR #2 ACCESS IMPROVEMENTS
TROUTDALE OREGON
 MULTNOMAH COUNTY TAX MAP IN 3E 35CC
 TAX LOT 6300

SITE PLAN

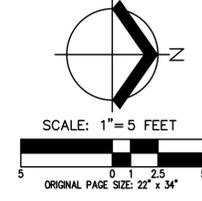
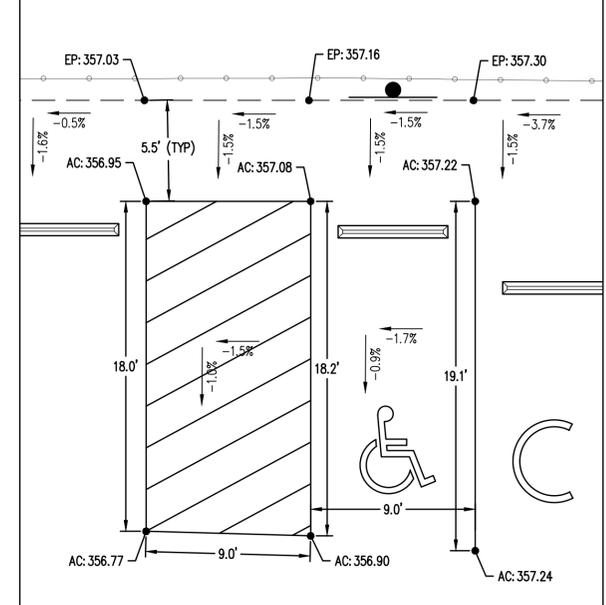
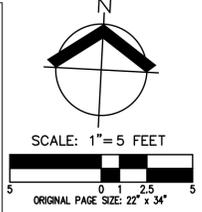
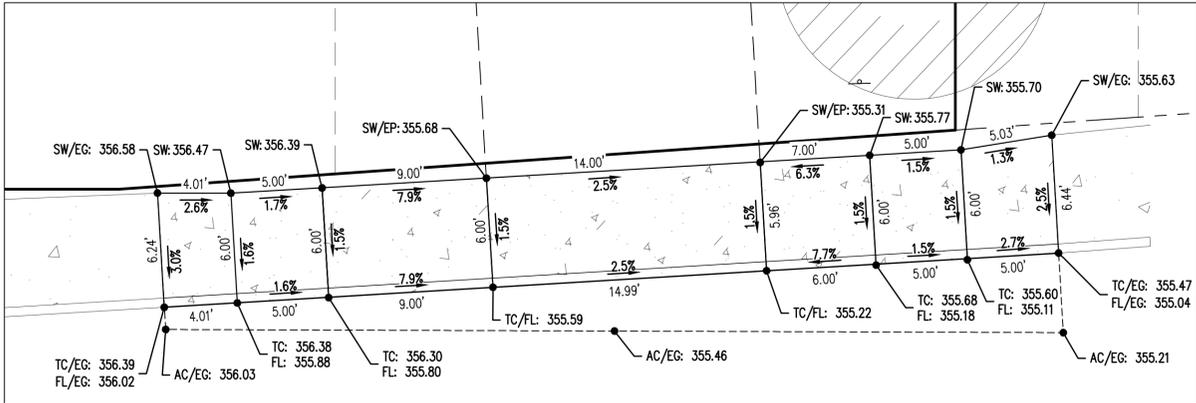
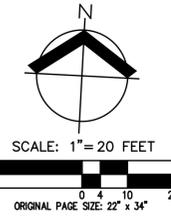
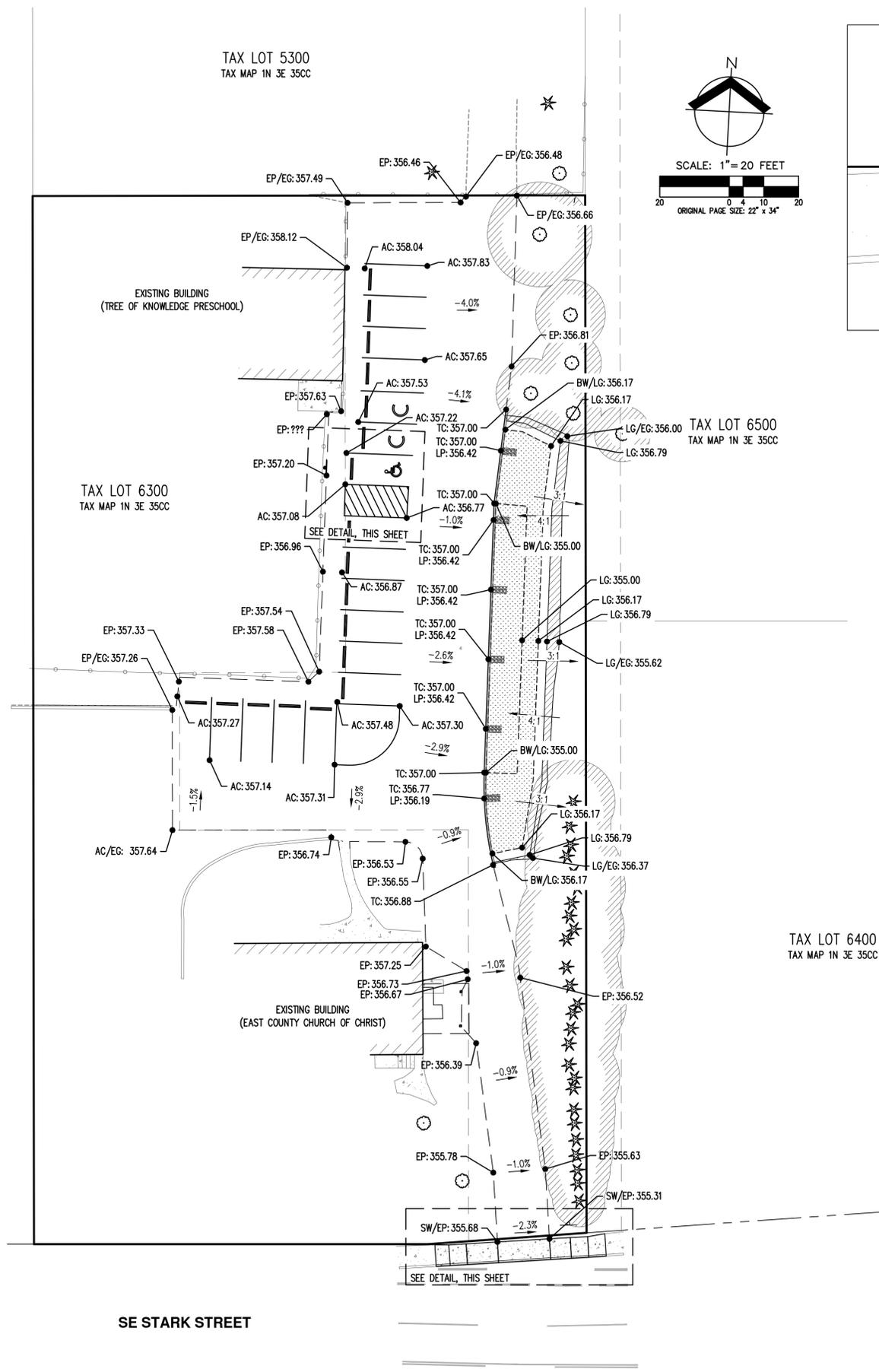
DESIGNED BY:
 DRAWN BY: PCB
 MANAGED BY: BGC
 CHECKED BY: BGC
 DATE: 5/20/2020

REGISTERED PROFESSIONAL ENGINEER
 82830PE
 OREGON
 APRIL 8, 2009
 BLAIR G. CARLSON
 RENEWS:
 REVISIONS
 1 07/14/2020 WATER SVC.

JOB NUMBER
7580

SHEET
C2.0

AKS DRAWING FILE: 7580_C2.0_DOT_CONST.DWG | LAYOUT: C2.2_SPOT ELEVATION PLAN



ABBREVIATIONS:

- AC = ASPHALT CONCRETE
 - BC = BOTTOM OF CURB ELEVATION
 - BW = BOTTOM OF WALL EXPOSED ELEVATION
 - EC = EDGE OF CONCRETE ELEVATION
 - EG = EXISTING GROUND ELEVATION
 - EP = EDGE OF PAVEMENT
 - FG = FINISH GRADE ELEVATION
 - FL = FLOW LINE
 - LG = LANDSCAPE GRADE ELEVATION
 - LP = LOW POINT
 - RIM = TOP OF STRUCTURE RIM ELEVATION
 - SW = SIDEWALK ELEVATION
 - TC = TOP OF CURB ELEVATION
- DOWNWARD SLOPE X.X%

GENERAL PRE-CONSTRUCTION, CLEARING, & DEMOLITION NOTES:

1. CONTRACTOR TO COORDINATE WITH THE CHURCH AND SCHOOL ADJACENT TO THE SITE PRIOR TO START OF ANY DEMOLITION, CLEARING, OR GRADING ACTIVITY.
2. CONTRACTOR TO VERIFY LOCATION OF ALL EXISTING UTILITIES ON-SITE PRIOR TO START OF CONSTRUCTION.

GENERAL NOTES

1. ALL PEDESTRIAN PATHWAYS SHALL BE CONSTRUCTED TO MEET ADA STANDARDS AND SHALL NOT EXCEED SLOPES SPECIFIED IN THE MOST CURRENT EDITION OF THE ADA MANUAL. ANY DEVIATION WITHOUT ARCHITECT OR PROJECT ENGINEERS APPROVAL SHALL BE SUBJECT TO REMOVAL AND REPLACEMENT AT THE CONTRACTORS EXPENSE.
 - a. MAXIMUM 2% CROSS-SLOPE ON PATHWAYS AND RAMPS.
 - b. PATHWAYS WITH SLOPES GREATER THAN 5% AND WITH GREATER THAN A 0.5" DROP IN ELEVATION SHALL UTILIZE HAND RAILS ON BOTH SIDES OF THE PATHWAY.
 - c. NO "RAMPS" SHALL EXCEED 8.33% SLOPE.
 - d. RAMPS AND PATHWAYS SHALL HAVE A CLEAR WIDTH OF 4 FEET AND IN NO CASE SHALL THE CLEAR WIDTH BE LESS THAN 3 FEET.
 - e. MAXIMUM REVEAL ALLOWED IS 1/4" ALONG ACCESSIBLE PATH (SIDEWALK JOINTS, DOORWAYS, ETC.)
 - f. LANDINGS IN DOORWAYS NOT TO EXCEED 2% SLOPE IN ALL DIRECTIONS.
2. ALL SIDEWALKS AND/OR PATHWAYS ARE ADA ACCESSIBLE ROUTES AND ARE DESIGNED TO BE LESS THAN 5% SLOPE, EXCEPT WHERE NOTED AS "RAMP" IN WHICH CASE THE MAXIMUM SLOPE ALLOWED IS 8.33%. INSTALL TRUNCATED DOME DETECTABLE WARNING PATTERN.
3. ANY PEDESTRIAN WALKWAYS OR RAMPS CONSTRUCTED WITH SLOPES IN EXCESS OF ADA REQUIREMENTS ARE SUBJECT TO REMOVAL AND REPLACEMENT AT CONTRACTOR'S EXPENSE.
4. ALL CURB REVEALS SHALL BE 6" UNLESS OTHERWISE NOTED.

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RESERVOIR #2 ACCESS IMPROVEMENTS
TROUTDALE OREGON
 MULTNOMAH COUNTY TAX MAP IN 3E 35CC
 TAX LOT 6300

SPOT ELEVATION PLAN

DESIGNED BY:
 DRAWN BY: PCB
 MANAGED BY: BGC
 CHECKED BY: BGC

DATE: 5/20/2020

 REGISTERED PROFESSIONAL ENGINEER
 82830PE
 OREGON
 APRIL 8, 2028
 BLAIR G. CARLSON

REVISIONS:

JOB NUMBER
7580

SHEET
C2.2

AKS DRAWING FILE: 7580_C2.0_LOT_CONST.DWG | LAYOUT: C2.3 STRIPING PLAN

TAX LOT 5300
TAX MAP 1N 3E 35CC

EXISTING BUILDING
(TREE OF KNOWLEDGE PRESCHOOL)

TAX LOT 6300
TAX MAP 1N 3E 35CC

9.0' (TYP.)
18.0' (TYP.)
9.0' (TYP.)

EXISTING BUILDING
(EAST COUNTY CHURCH OF CHRIST)

TAX LOT 6500
TAX MAP 1N 3E 35CC

TAX LOT 6400
TAX MAP 1N 3E 35CC

SE STARK STREET

55'

VAR



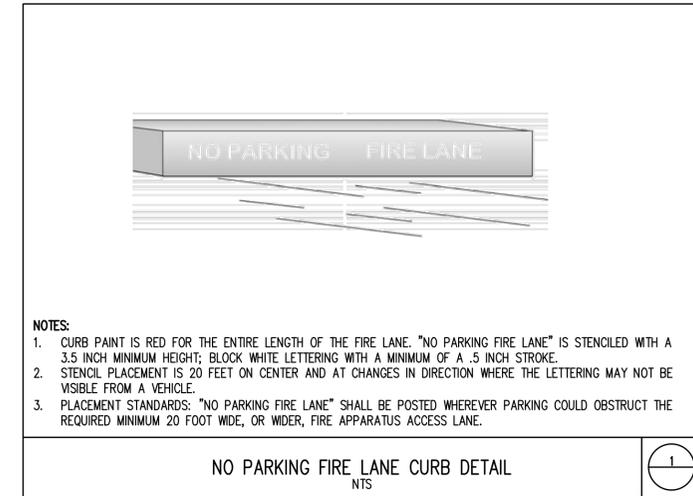
SCALE: 1" = 20 FEET
ORIGINAL PAGE SIZE: 22" x 34"

STRIPING CONSTRUCTION KEYED NOTES:

1. INSTALL 2"-WIDE WHITE PAINT PARKING STALL LINE.
2. PAINT EXTRUDED CURB RED
3. PAINT WHITE "NO PARKING FIRE LANE" STENCIL ON CURB PER DETAIL, THIS SHEET.
4. VAN ACCESSIBLE PARKING STALL STRIPING AND SIGNAGE PER DETAILS 1/ADA AND 2/ADA, SHEET C4.0.

GENERAL STRIPING NOTES:

1. NO ADDITIONAL SIGNS ARE PROPOSED.



NOTES:

1. CURB PAINT IS RED FOR THE ENTIRE LENGTH OF THE FIRE LANE. "NO PARKING FIRE LANE" IS STENCILED WITH A 3.5 INCH MINIMUM HEIGHT; BLOCK WHITE LETTERING WITH A MINIMUM OF A .5 INCH STROKE.
2. STENCIL PLACEMENT IS 20 FEET ON CENTER AND AT CHANGES IN DIRECTION WHERE THE LETTERING MAY NOT BE VISIBLE FROM A VEHICLE.
3. PLACEMENT STANDARDS: "NO PARKING FIRE LANE" SHALL BE POSTED WHEREVER PARKING COULD OBSTRUCT THE REQUIRED MINIMUM 20 FOOT WIDE, OR WIDER, FIRE APPARATUS ACCESS LANE.



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RESERVOIR #2 ACCESS
IMPROVEMENTS
TROUTDALE
TAX LOT 6300
OREGON
MULTNOMAH COUNTY TAX MAP 1N 3E 35CC

STRIPING PLAN

DESIGNED BY:
DRAWN BY: PCB
MANAGED BY: BGC
CHECKED BY: BGC

DATE: 5/20/2020

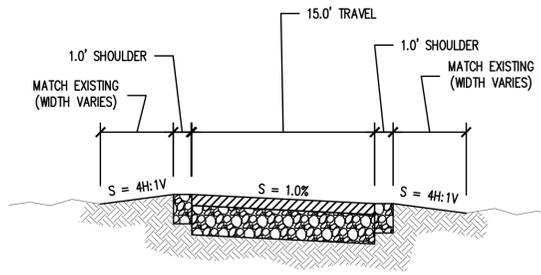


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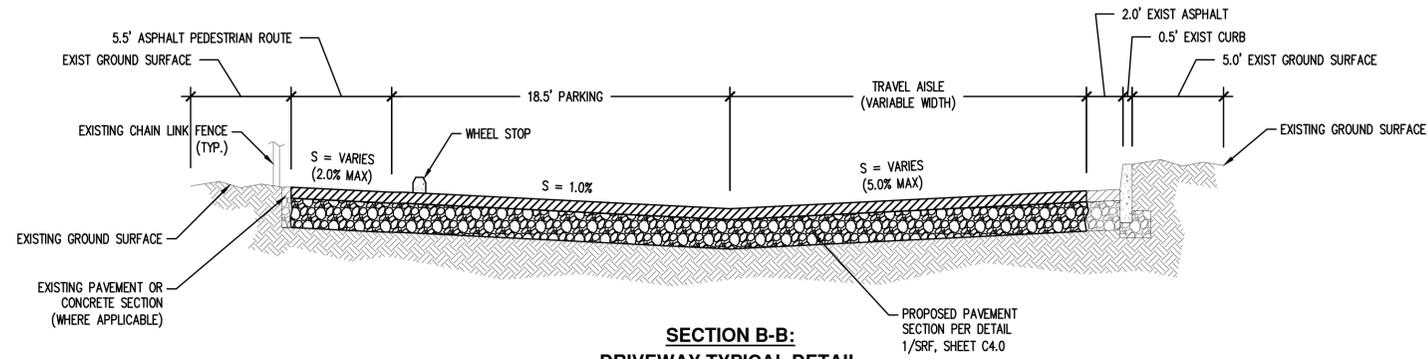
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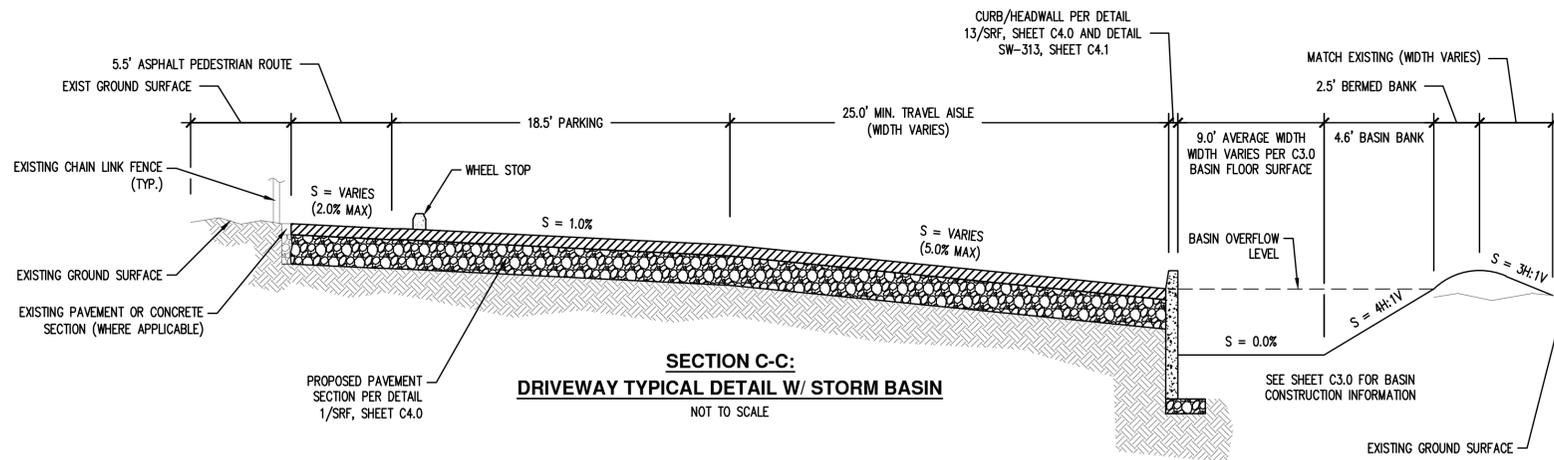
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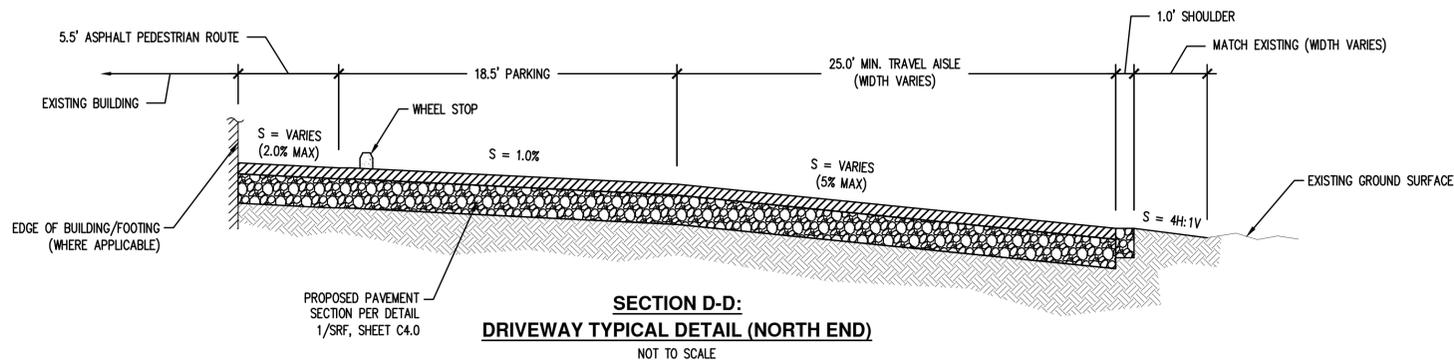
**SECTION A-A:
DRIVEWAY TYPICAL DETAIL**
NOT TO SCALE



**SECTION B-B:
DRIVEWAY TYPICAL DETAIL**
NOT TO SCALE



**SECTION C-C:
DRIVEWAY TYPICAL DETAIL W/ STORM BASIN**
NOT TO SCALE



**SECTION D-D:
DRIVEWAY TYPICAL DETAIL (NORTH END)**
NOT TO SCALE

AKS DRAWING FILE: 7580_C2.0_LOT_CONST.DWG | LAYOUT: C2.4 TYPICAL SECTIONS & CONSTRUCTION DETAILS

TYPICAL SECTIONS

DESIGNED BY:
DRAWN BY: PCB
MANAGED BY: BGC
CHECKED BY: BGC

DATE: 5/20/2020

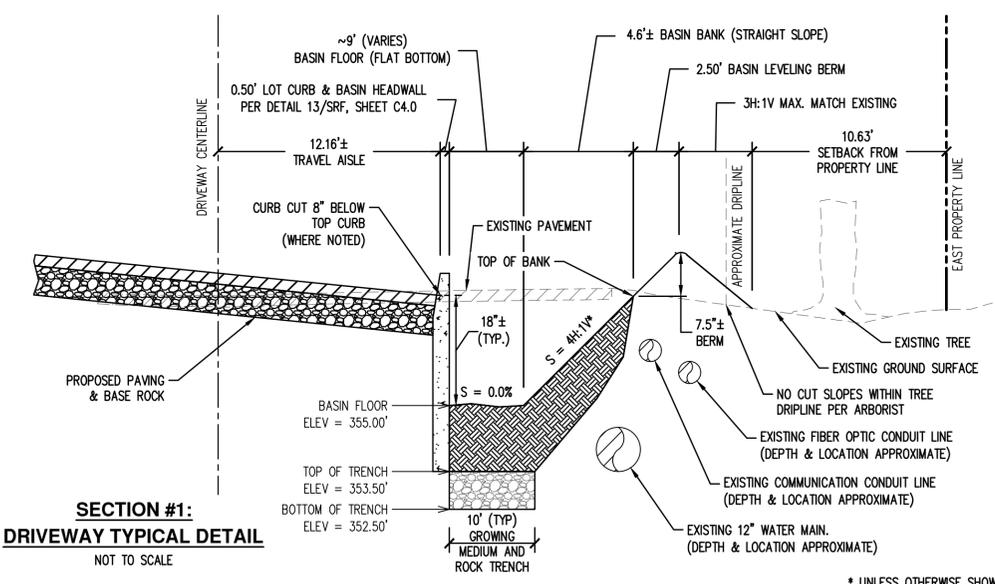
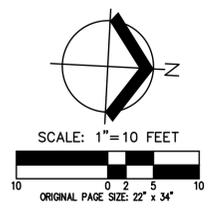
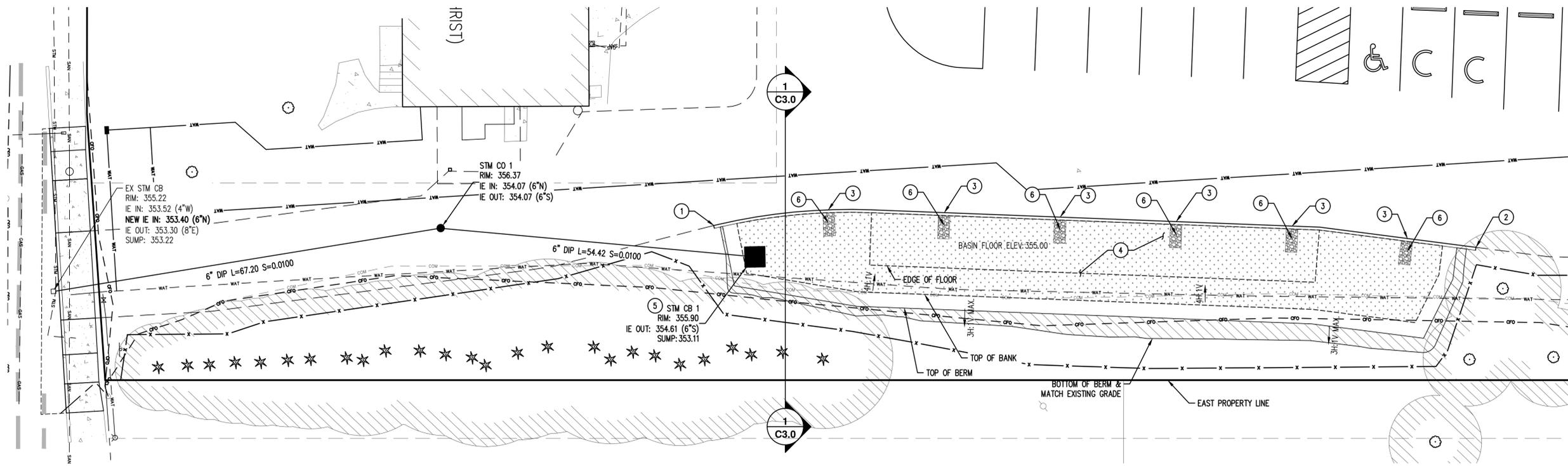


REVISIONS:

JOB NUMBER
7580
SHEET

C2.4

AKS DRAWING FILE: 7580_C3.0 STORMWATER BASIN PLAN & CROSS-SECTION DETAILS



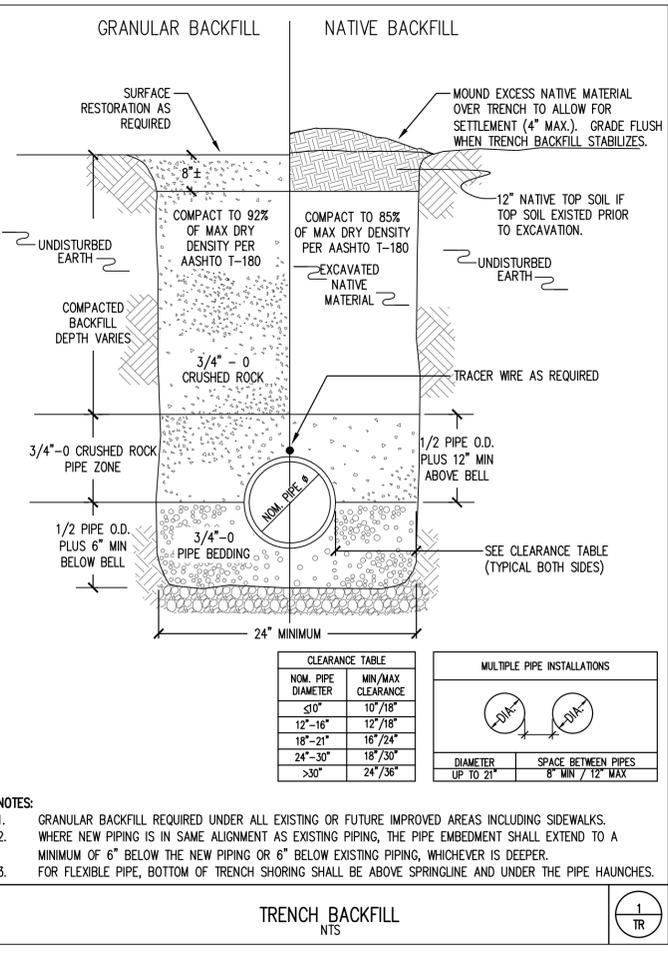
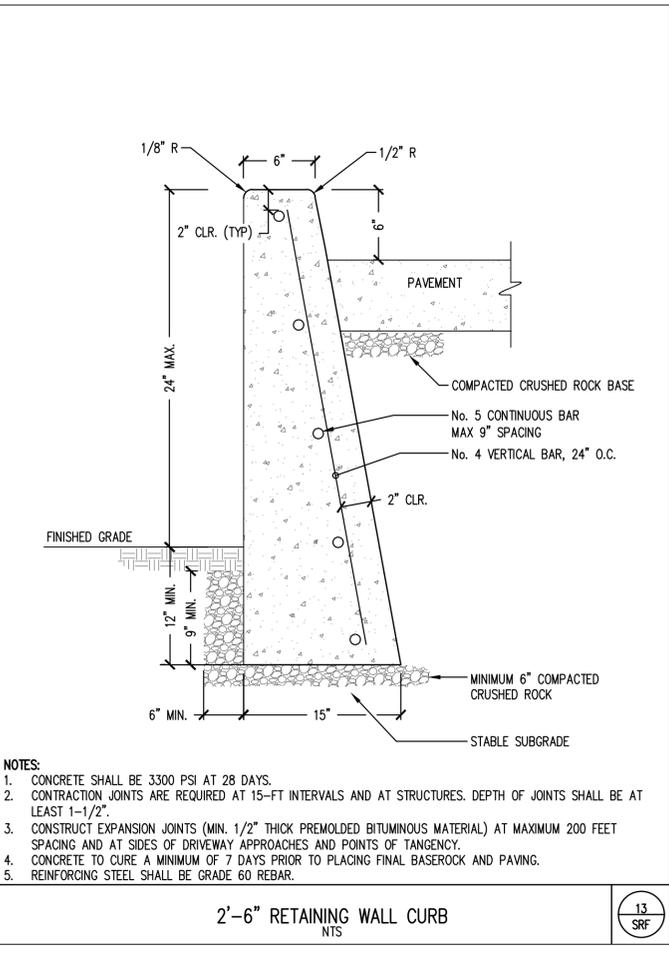
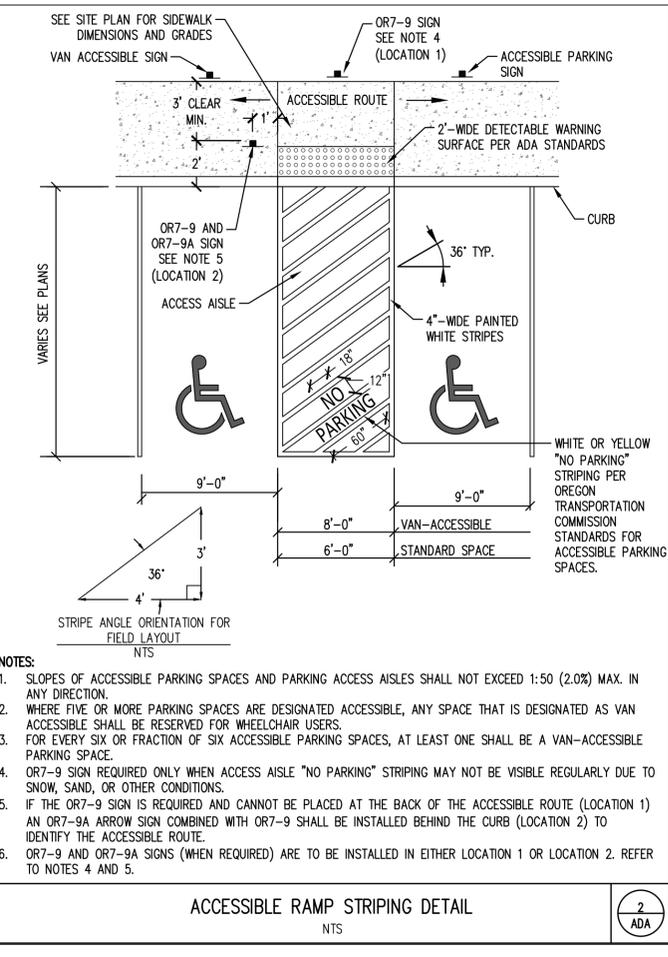
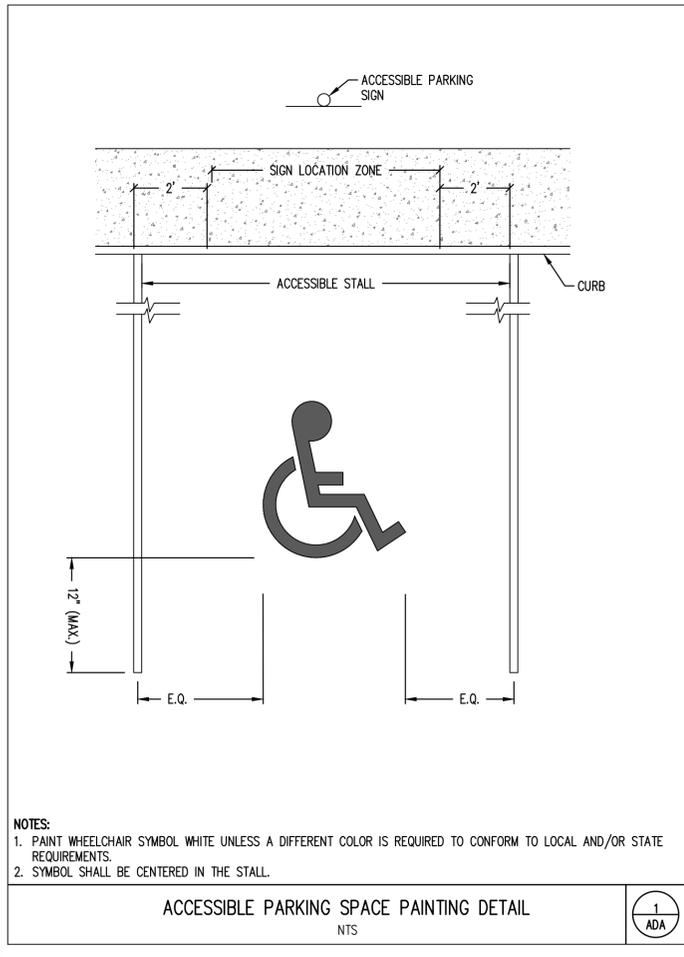
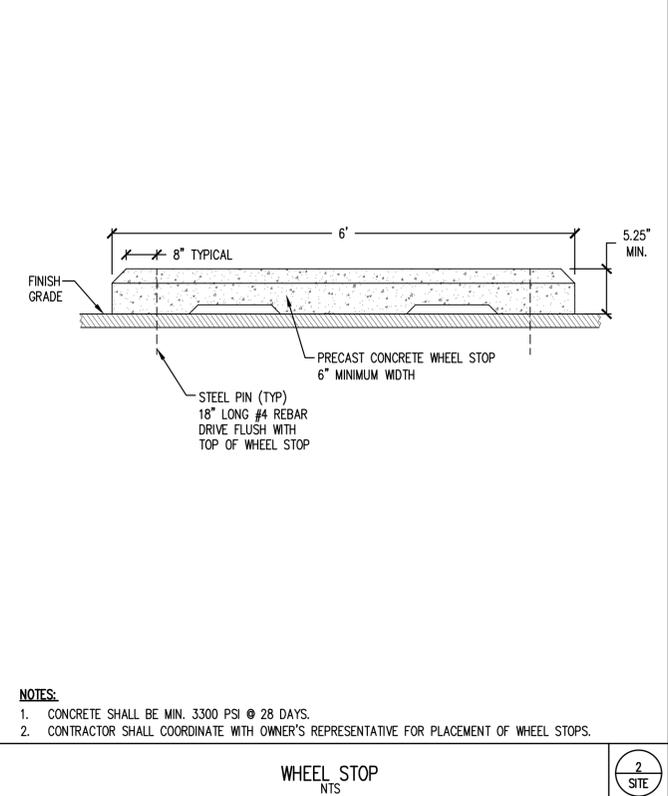
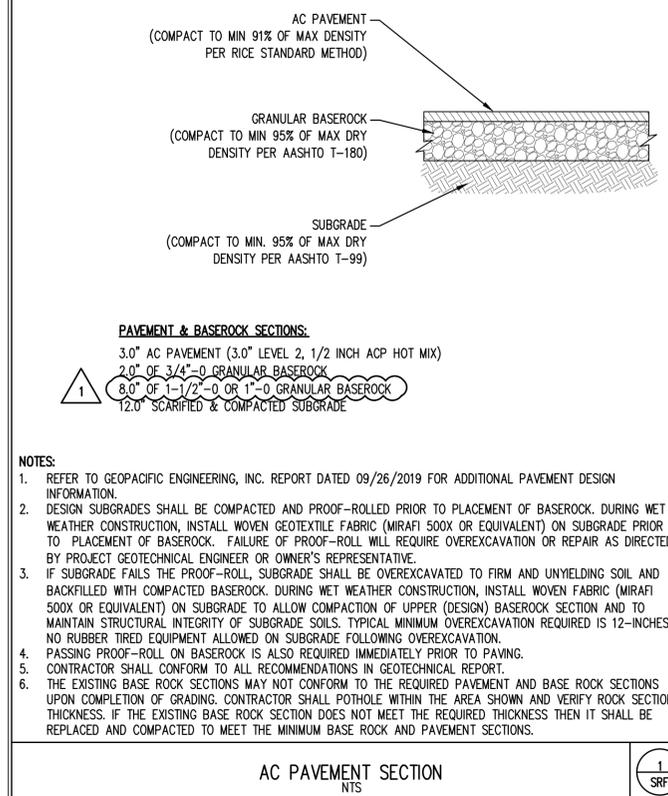
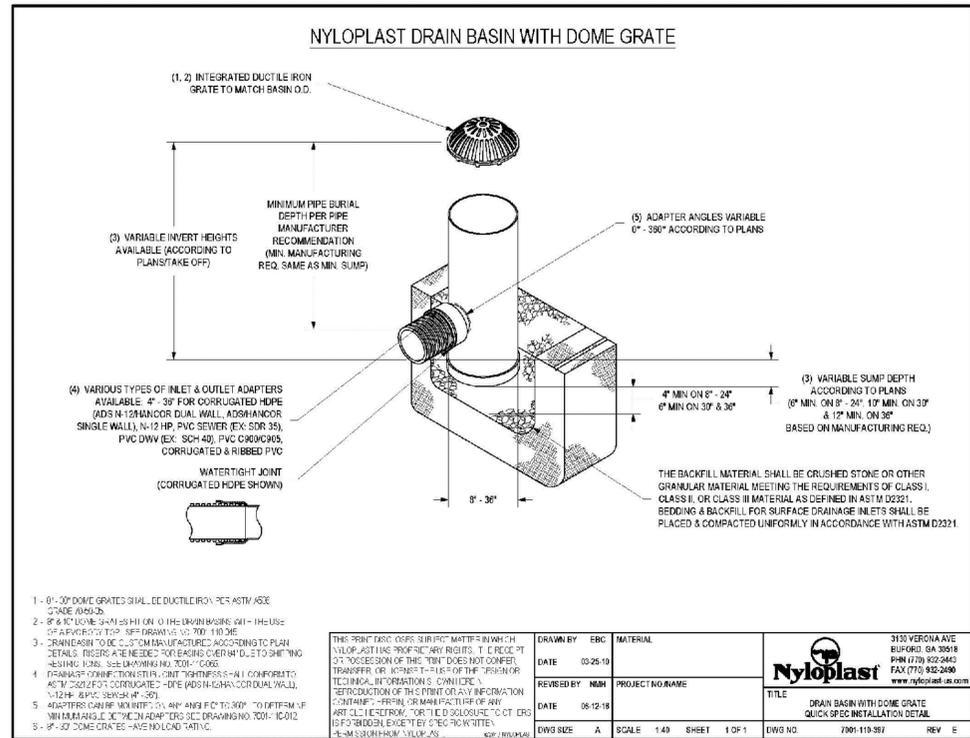
STORM BASIN CONSTRUCTION KEYED NOTES:

1. BEGIN INSTALLATION OF CONCRETE CURB WALL PER CROSS-SECTION DETAIL THIS SHEET AND DETAIL 13/SRF, SHEET C4.0. MAINTAIN 6" EXPOSURE ON PAVING SIDE. EXPOSURE ON BASIN SIDE VARIES (24" MAX.).
2. END INSTALLATION OF CONCRETE CURB WALL. SEE NOTE #1 FOR ADDITIONAL INFORMATION.
3. INSTALL CURB CUT WITHIN CURB WALL PER DETAIL, SHEET C4.1. (2/4.1) DETAIL # SHEET #
4. CONSTRUCT STORMWATER BASIN PER DETAIL SW-241, SHEET C4.1.
 - 4.1. GROWING MEDIUM: 1,210 SF AREA, 18" DEPTH; SHALL MEET CITY OF PORTLAND STANDARD CONSTRUCTION SPECIFICATIONS.
 - 4.2. ROCK TRENCH: 1,210 SF AREA, 12" DEPTH
5. INSTALL 12" OVERFLOW RISER WITH DOME GRATE PER NYLOPLAST DETAIL ON SHEET C4.0.
6. INSTALL SPLASH PAD AND ROCK PROTECTION PER DETAIL 2/4.1.
7. INSTALL 6" CLEAN OUT PER DETAIL 4/SD, SHEET C4.1.

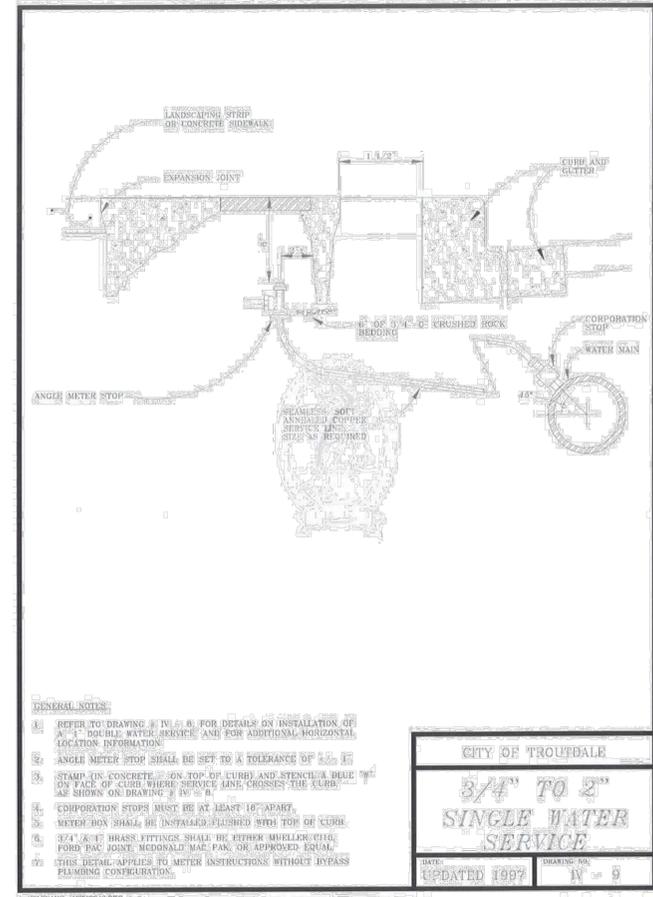
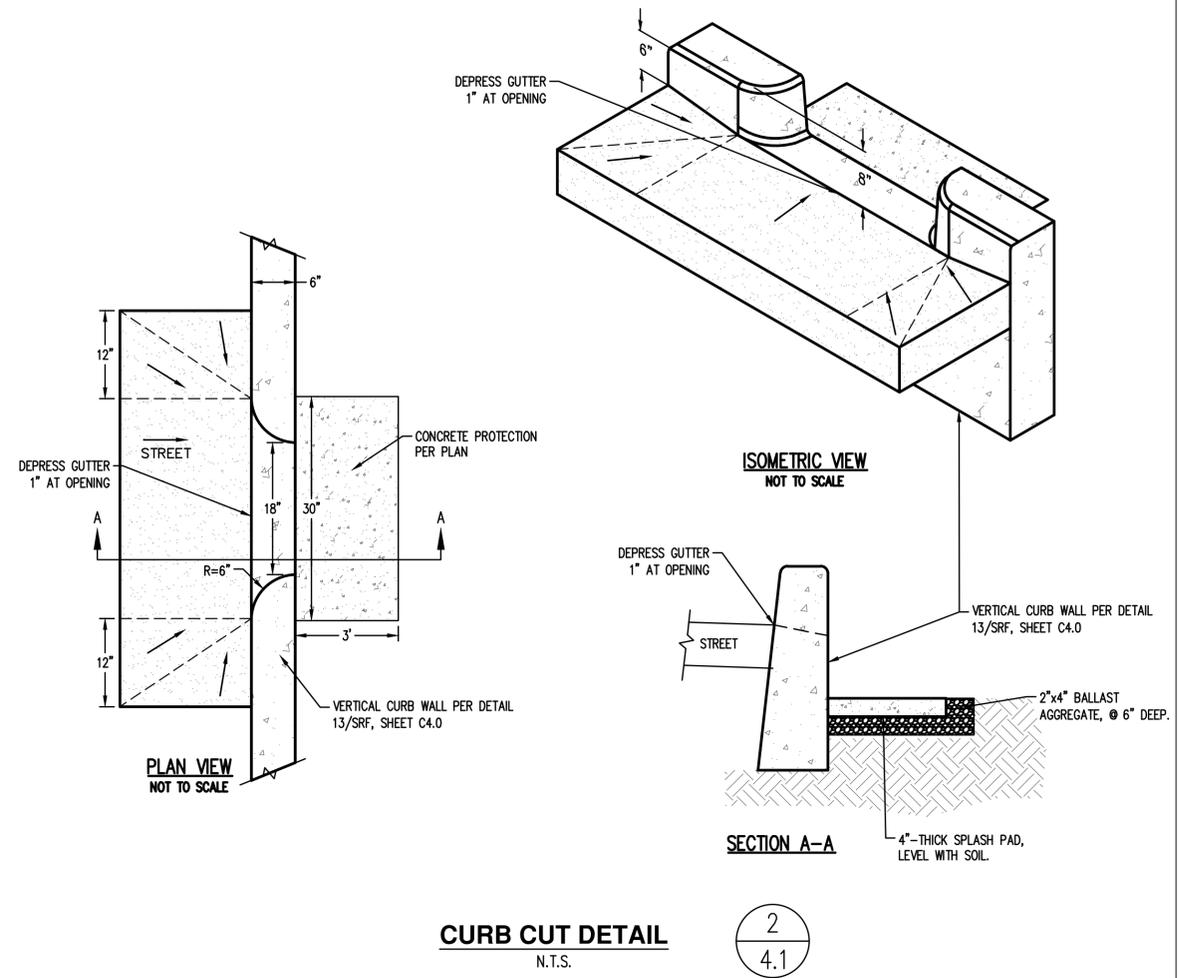
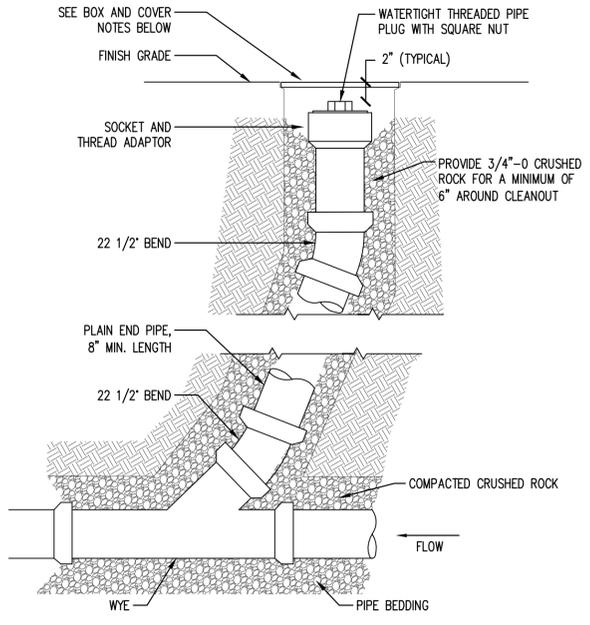
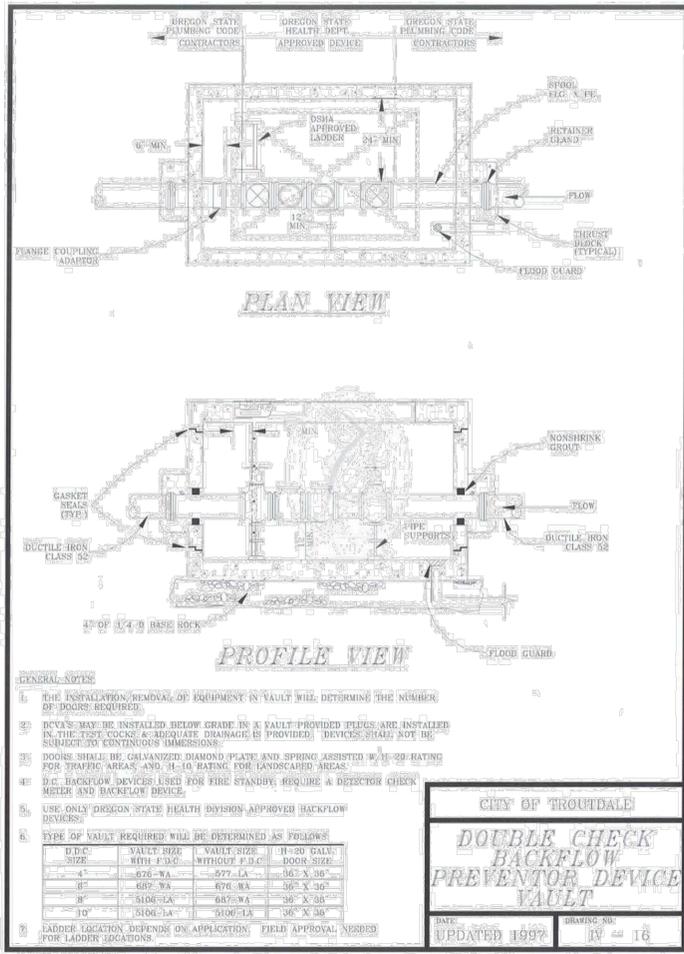
GENERAL STORM BASIN CONSTRUCTION NOTES:

1. ALL SLOPES SHALL NOT EXCEED 3H:1V SLOPES.
2. ALL BASIN CONSTRUCTION SHALL NOT ENCRoACH WITHIN 5' SETBACK FROM EAST PROPERTY LINE.

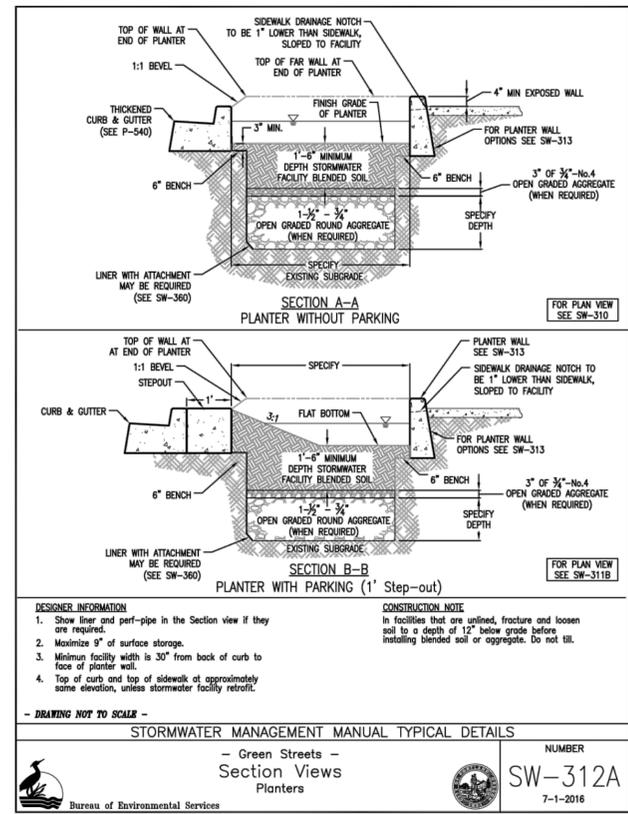
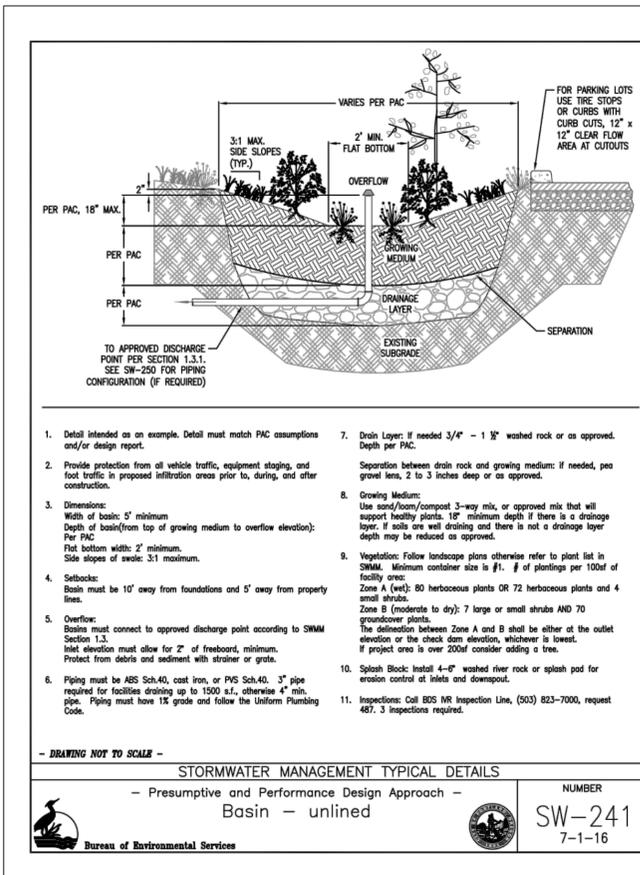
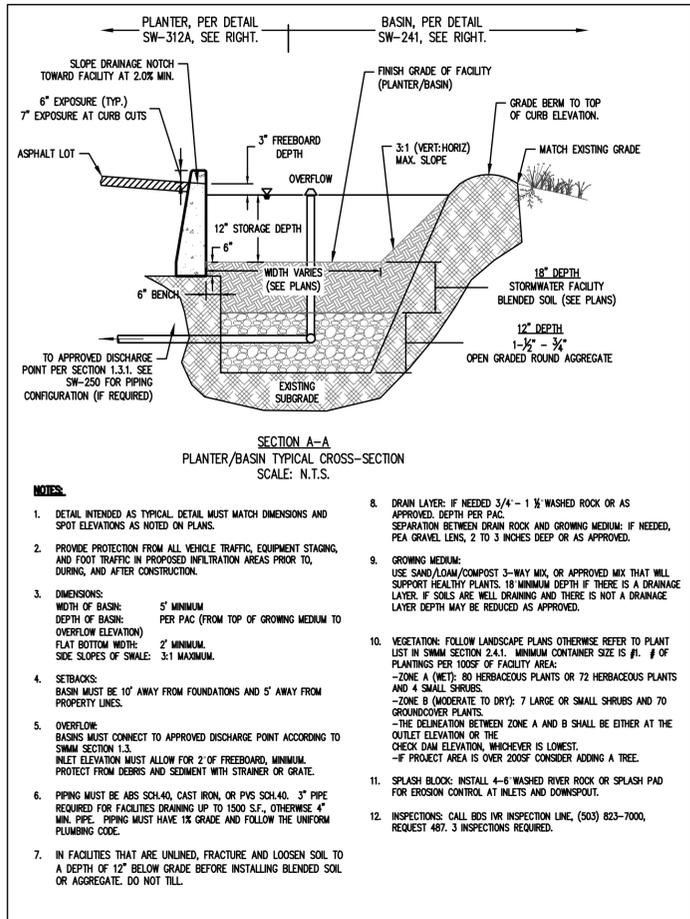
* UNLESS OTHERWISE SHOWN



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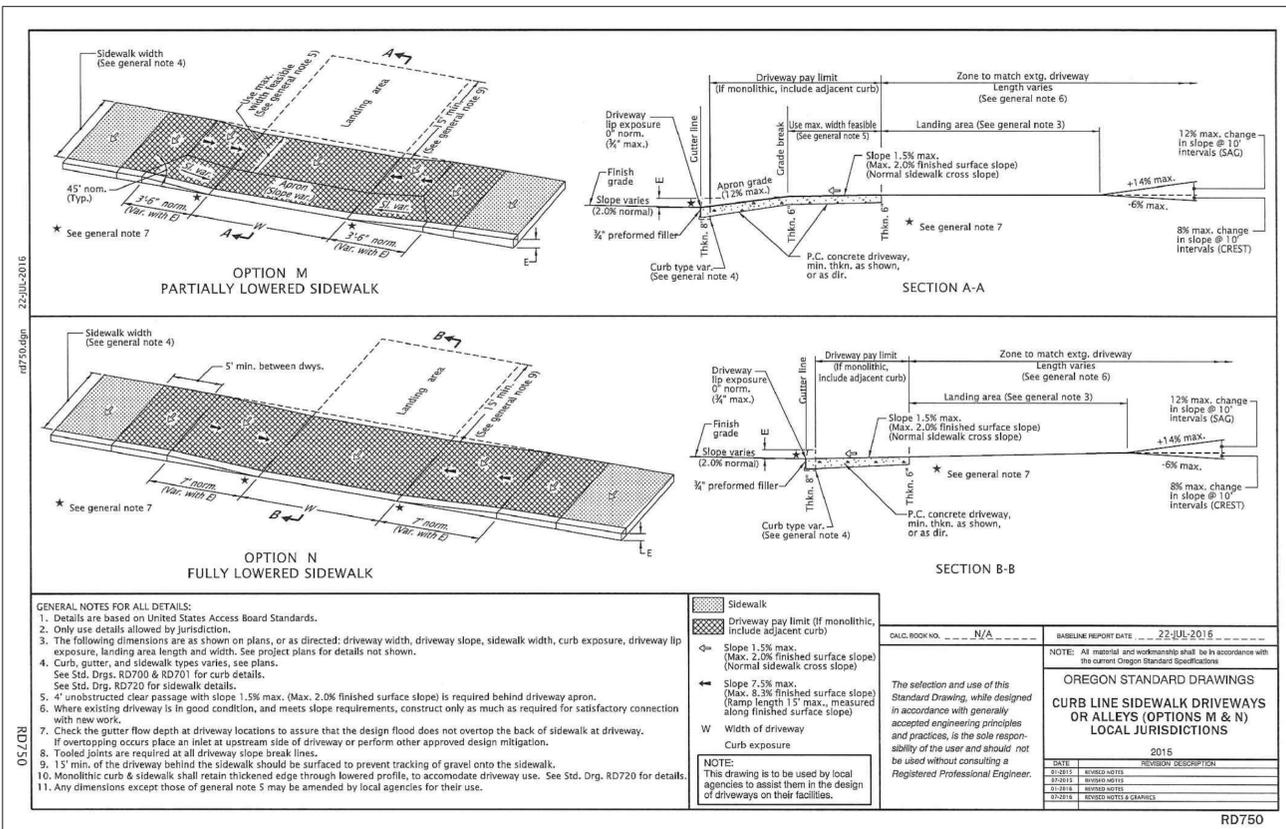


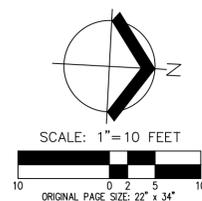
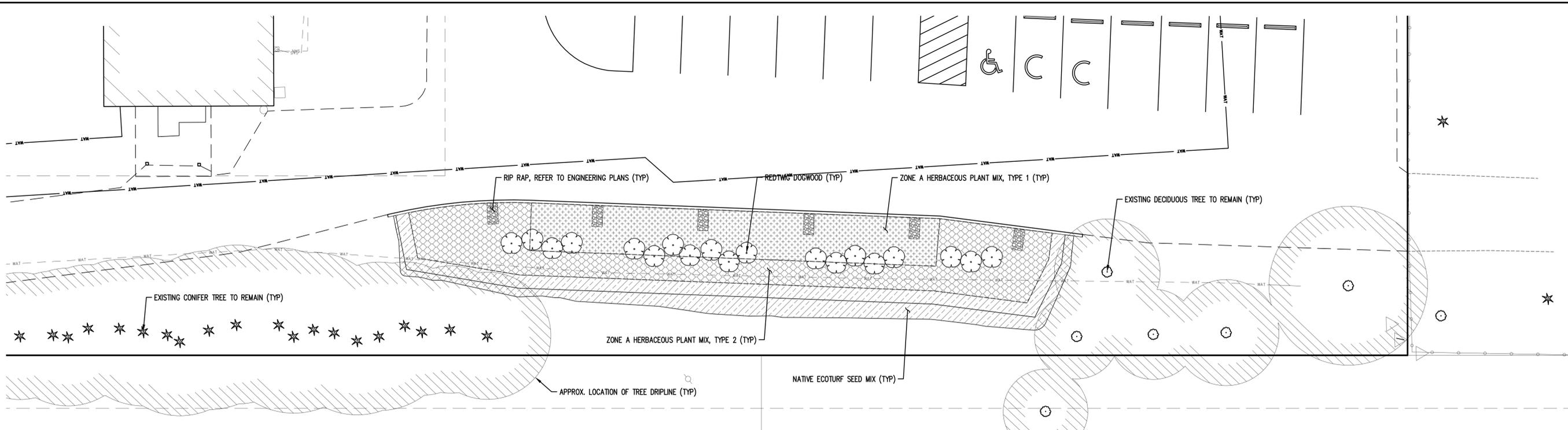
AKS DRAWING FILE: 7580_C4.0 DETAILS.DWG | LAYOUT: C4.1 DETAILS



CITY OF PORTLAND DETAIL (FOR REFERENCE ONLY)

CITY OF PORTLAND DETAIL (FOR REFERENCE ONLY)





STANDARD O&M PLAN FOR THE SIMPLIFIED AND PRESUMPTIVE APPROACHES
3.1.1.9. Basins

Structural components must be operated and maintained in accordance with the design specifications.	
MAINTENANCE INDICATOR	CORRECTIVE ACTION
Clogged inlets or outlets	Remove sediment, debris, and blockages from catch basins, trench drains, curb inlets, and pipes to maintain at least 50% conveyance at all times
Broken inlets or outlets, including grates	Repair or replace broken downspouts, curb cuts, standpipes, and screens as needed.
Cracked or exposed drain pipes	Repair or seal cracks. Replace when repair is insufficient. Cover with 6 inches of growing medium to prevent freeze/thaw and UV damage.
Check dams missing/broken	Maintain or replace rock check dams as per design specifications.
Perforated liner	Replace or repair liner as needed.
Vegetation must cover at least 90% of the facility at maturity.	
MAINTENANCE INDICATOR	CORRECTIVE ACTION
Dead or stressed vegetation	Replant per original planting plan, or substitute from the plant list in Section 2.4.1. Irrigate and mulch as needed; prune tall, dry grasses and remove clippings.
Tall grass and vegetation	Maintain grass height at 6"-9". Trim to allow sight lines and foot traffic, also to ensure inlets and outlets freely convey stormwater into and/or out of facility.
Weeds	Manually remove weeds.
Growing medium must sustain healthy plant cover and infiltrate within 48 hours.	
MAINTENANCE INDICATOR	CORRECTIVE ACTION
Gullies, erosion, exposed soil, sediment accumulation	Fill in and lightly compact areas of erosion with City-approved soil mix (see Section 2.3.6) and replant according to planting plan or substitute from the plant list in Section 2.4.1. Erosion more than 2 inches deep must be addressed. Sediment more than 4 inches deep must be removed.
Scouring at the inlet(s)	Ensure splash blocks or inlet gravel/rock are adequate.
Slope slippage	Stabilize 3:1 slopes/banks with plantings from the original planting plan or from the plant list in Section 2.4.1.
Ponding	Rake, till, or amend soil surface with City-approved soil mix to restore infiltration rate. Remove sediment at entrance.

Annual Maintenance Schedule

Summer	Make structural repairs; clean gutters and downspouts; remove any build-up of weeds or organic debris.
Fall	Replant exposed soil and replace dead plants. Remove sediment and plant debris.
Winter	Clear gutters and downspouts.
Spring	Remove sediment and plant debris. Replant exposed soil and replace dead plants.
All seasons	Weed as necessary.

Maintenance Records: All facility operators are required to keep an inspection and maintenance log. Record date, description, and contractor (if applicable) for all repairs, landscape maintenance, and facility cleanout activities. Keep work orders and invoices on file and make available upon request of the City inspector.

Fertilizers/Pesticides/Herbicides: Their use is strongly discouraged because of the potential for damage to downstream systems. If pesticides or herbicides are required, use the services of a licensed applicator and products approved for aquatic use.

Access: Maintain ingress/egress per design standards.

Infiltration/Flow Control: All facilities must drain within 48 hours. Record time/date, weather, and conditions when ponding occurs.

Pollution Prevention: All sites must implement Best Management Practices to prevent contamination of stormwater. Call 503-823-7180 to report spills. Never wash spills into a stormwater facility. If contamination occurs, document the circumstances and the corrective action taken; include the time/date, weather, and site conditions.

Vectors (Mosquitoes and Rats): Facilities must not harbor mosquito larvae or rodents. Record the time/date, weather, and site conditions when vector activity is observed. Record when vector abatement started and ended.

2016 Portland Stormwater Management Manual
 STANDARD O&M PLAN—BASINS

PLANT SCHEDULE

TREATMENT AREA: ±1,305 SF

SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	SIZE/CONTAINER	SPACING
	19	CORNUS SERICEA	RED TWIG DOGWOOD	2 GAL. CONT.	48" o.c.

GROUND COVERS	QTY	DESCRIPTION	SIZE/CONTAINER	SPACING
	395	ZONE A HERBACEOUS PLANT MIX, TYPE 1: (131) SLOUGH SEDGE (CAREX OBNUPTA) (132) SPREADING RUSH (JUNCUS PATENS) (132) SMALL-FRUITED BULRUSH (SCIRPUS MICROCARPUS)	1 GAL. CONT.	15" o.c.
	571	ZONE A HERBACEOUS PLANT MIX, TYPE 2: (57) LARGE-LEAVED LUPINE (LUPINUS POLYPHYLLUS) (171) SLOUGH SEDGE (CAREX OBNUPTA) (171) TUFTED HAIRGRASS (DESCHAMPSIA CESPITOSA) (172) SLENDER RUSH (JUNCUS TENUIS)	1 GAL. CONT.	15" o.c.

	QTY	DESCRIPTION
	700 SF±	NATIVE ECOTURF SEED MIX – SUNMARK SEEDS (OR APPROVED EQUAL) NATIVE RED FESCUE 45%; BLUE GRAMMA 25%; BUFFALOGRASS 20%; PRAIRIE JUNEGRASS 7%; STRAWBERRY CLOVER 3%

PLANTS TO BE 1-GALLON, PLANTED 1.25- FEET (15-INCHES) O.C., TRIANGULARLY SPACED, RANDOM PLACEMENT

APPLY AT A RATE OF 1 LB. PER 1,000 SF OR AS RECOMMENDED BY SUPPLIER

VEGETATED STORMWATER FACILITY NOTES

- PLANTS AND PLANTINGS ARE SHOWN TO PORTRAY THE CHARACTER OF THE SITE AND CONFORM TO THE CITY OF PORTLAND STORMWATER MANAGEMENT MANUAL OR AS OTHERWISE APPROVED. PLAN REVISIONS INCLUDING CHANGES TO PLANT SPECIES, SIZES, SPACING, QUANTITIES, ETC., DUE TO PLANT AVAILABILITY OR UNFORESEEN SITE CONDITIONS MUST BE ALLOWED PRIOR TO INSTALLATION WITH APPROVAL BY THE CITY OF TROUTDALE. ALL PLANT SUBSTITUTIONS MUST BE FROM THE CITY OF PORTLAND'S STORMWATER MANAGEMENT MANUAL APPROVED PLANT LIST FOR STORMWATER FACILITIES (CURRENT EDITION), AND BE APPROPRIATE FOR SOIL, HYDROLOGIC, SITE CONDITIONS.
- CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL PLANT AND MATERIAL QUANTITIES PRIOR TO BIDDING AND CONSTRUCTION. IF DISCREPANCIES OCCUR, DESIGN INTENT PREVAILS OVER QUANTITIES LISTED.
- LANDSCAPE INSTALLATION SHALL CONFORM TO THE CITY OF TROUTDALE'S LANDSCAPE DESIGN STANDARDS AND TO AMERICAN NURSERY STANDARDS ANSI 1260.1 2014, OR CURRENT EDITION IN ALL WAYS. PLANT IN ACCORDANCE WITH RECOGNIZED BEST PRACTICE STANDARDS SUCH AS THOSE ADOPTED BY THE OREGON LANDSCAPE CONTRACTOR'S BOARD (OLCB) AND THE AMERICAN HORTICULTURAL INDUSTRY ASSOCIATION. FIELD ADJUST PLANT LOCATION AS NECESSARY TO AVOID CONFLICTS WITH UTILITIES, RIP RAP, ETC.
- ALL LANDSCAPING SHALL BE INSTALLED AT THE TIME OF CONSTRUCTION UNLESS OTHERWISE APPROVED BY THE CITY OF TROUTDALE DUE TO INCLEMENT WEATHER OR TEMPORARY SITE CONDITIONS. UPON INSTALLATION, ALL PLANT MATERIALS SHALL BE VIGOROUS, WELL-BRANCHED, AND WITH HEALTHY, WELL-FURNISHED ROOT SYSTEMS, FREE OF DISEASE, INSECT PESTS, AND INJURIES.
- HERBACEOUS PLANTS MUST BE ESTABLISHED AS SOON AS POSSIBLE AFTER THE SWALE IS COMPLETED AND BEFORE WATER IS ALLOWED TO ENTER THE FACILITY.
- IRRIGATION: IRRIGATION SHALL BE APPLIED BY HAND WATERING FOR PLANT ESTABLISHMENT. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY NECESSARY IRRIGATION FOR PLANT HEALTH AND SURVIVAL UNTIL DATE OF FINAL ACCEPTANCE.
- SOIL: REFER TO CIVIL PLANS FOR GROWING MEDIUM DETAILS AND SPECIFICATIONS.
- REFER TO CIVIL PLANS FOR BASIN STORMWATER FACILITY DETAILS.