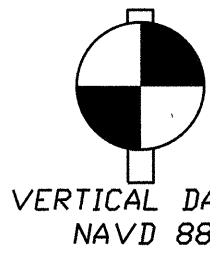


LEGEND

- MONUMENT (AS NOTED)
- SET REBAR & CAP (AS NOTED)
- FOUND SURVEY MARKER (AS NOTED)
- SEWER MANHOLE
- STORMDRAIN MANHOLE
- CATCH BASIN
- FIRE HYDRANT
- WATER VALVE
- WATER METER
- UTILITY POLE
- GUY ANCHOR
- COMMUNICATION JUNCTION BOX/RISER
- FIR-F
- PINE-P
- CEDAR-C
- MAPLE-M
- BIRCH-B
- DICIDIOUS-D/LOCUST-L
- FENCE (TYPE NOTED)
- OVERHEAD LINES



Horizontal Control in State Plane Coordinates and Vertical Control in NAVD88 (all coordinates in feet) using Leica 1200RX RTK GPS and Kuker Ranken RGPS Network

#9 Snohomish County Survey Control Database Point ID No. 2256, magnetic nail with brass tag in asphalt sidewalk in southwest corner of intersection of 84th St. SW and Graham Way N:339718.30 E:1280175.48 Elev:420.73

#1 PK nail set in asphalt parking area of Tract 44, 4.75 feet south of edge of pavement and 12.5 feet east of iron fence N:341624.65 E:1279467.46 Elev:390.38

#5 Wooden hub and pk nail set in lawn near east top of bank and property line between Tracts 44 and 45 N:341690.30 E:1279253.46 Elev:392.99

LEGAL DESCRIPTION

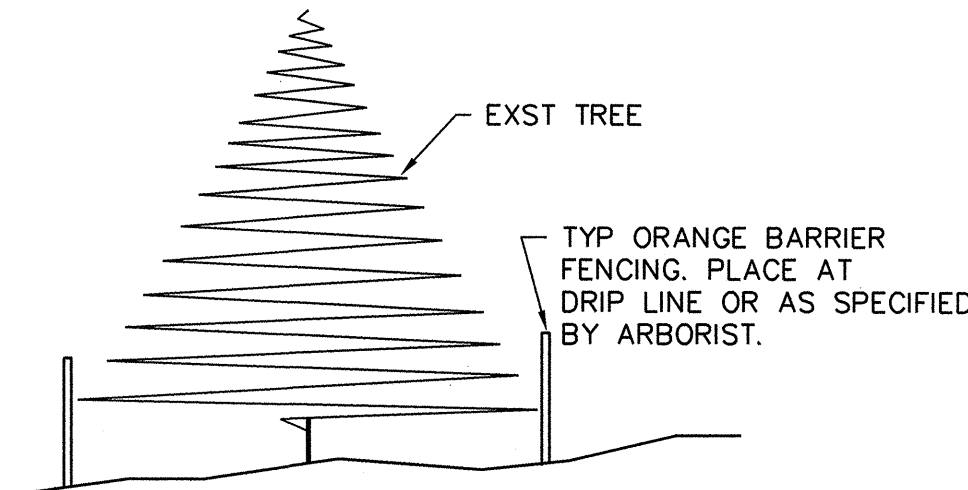
Tract 45 per Fidelity National Title Company of Washington Commitment Order No. 611075232, dated March 18, 2014

Tract 45, West and Wheeler's Sea View 5 Acre Tracts, as per plat recorded in Volume 7 of Plats, on page 12, Records of Snohomish County, Washington.

Situate in the County of Snohomish, State of Washington.

TOPSOIL NOTE:

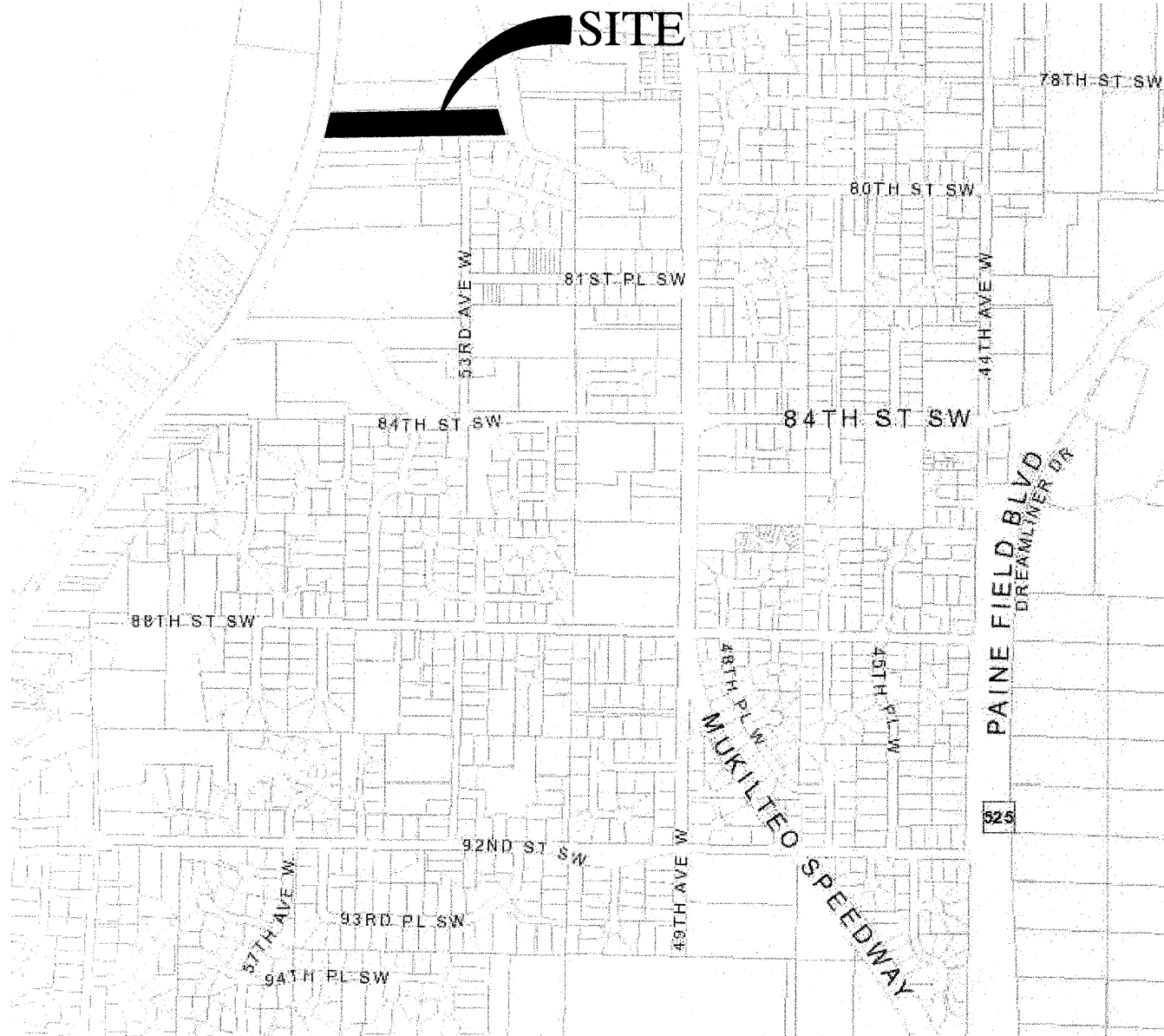
STOCKPILE TOPSOIL FROM GRADED AREAS. AREAS TO BE LANDSCAPED OR RESTORED TO NATURAL CONDITIONS SHALL BE COVERED WITH SITE TOPSOIL TO A MINIMUM DEPTH OF 8 INCHES. TOPSOIL SHALL MEET THE COMPOST REQUIREMENTS OF WAC 173-350-100. THE COMPOST SHALL HAVE AN ORGANIC MATTER CONTENT OF 40% TO 65%, AND A CARBON TO NITROGEN RATIO BELOW 25:1. TOPSOIL NOT MEETING THIS REQUIREMENT SHALL BE AMENDED WITH COMPOST TO THE EXTENT NECESSARY TO MEET THE REQUIREMENT.

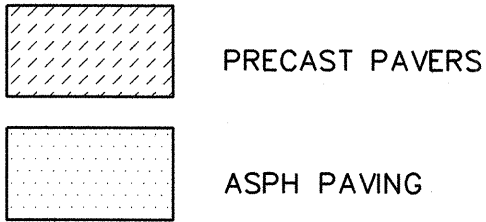
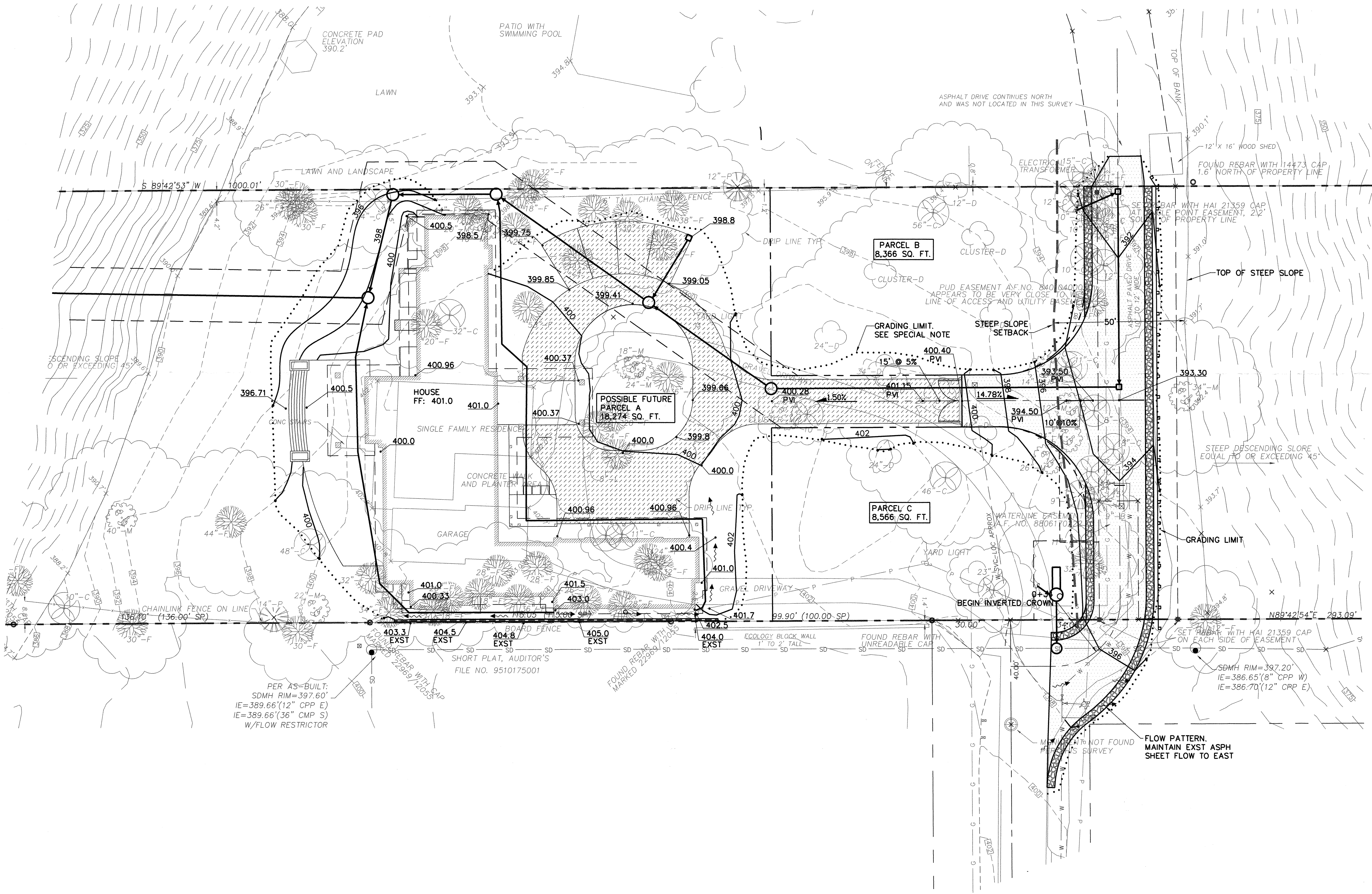
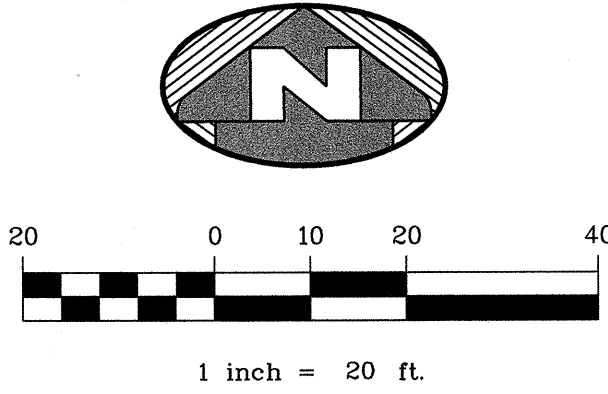


PROTECT TREES PER SECTION 5.4 OF CITY OF MUKILTEO 2017 DEVELOPMENT STANDARDS. AN ARBORIST IS REQUIRED TO APPROVE ANY WORK DONE WITHIN THE TREE DRIP LINE. NOTE THAT AN ARBORIST IS REQUIRED TO CONDUCT INSPECTIONS WHEN ANY IMPACT MAY OCCUR TO TREE ROOTS OVER 3 INCHES IN DIAMETER AND IF TREE TRUNKS ARE DAMAGED.

TREE PROTECTION DETAIL

NTS



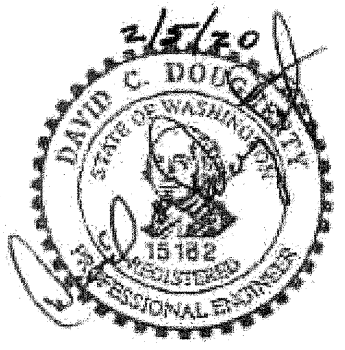


EARTHWORK QUANTITIES
CUT = 1,150 C.Y.
FILL = 71 C.Y.

QUANTITIES ARE APPROXIMATE. CONTRACTOR TO PERFORM WORK AS REQUIRED TO BRING SITE TO FINISHED GRADES AS SHOWN.

AREA TO BE CLEARED: 52,950 SQ FT

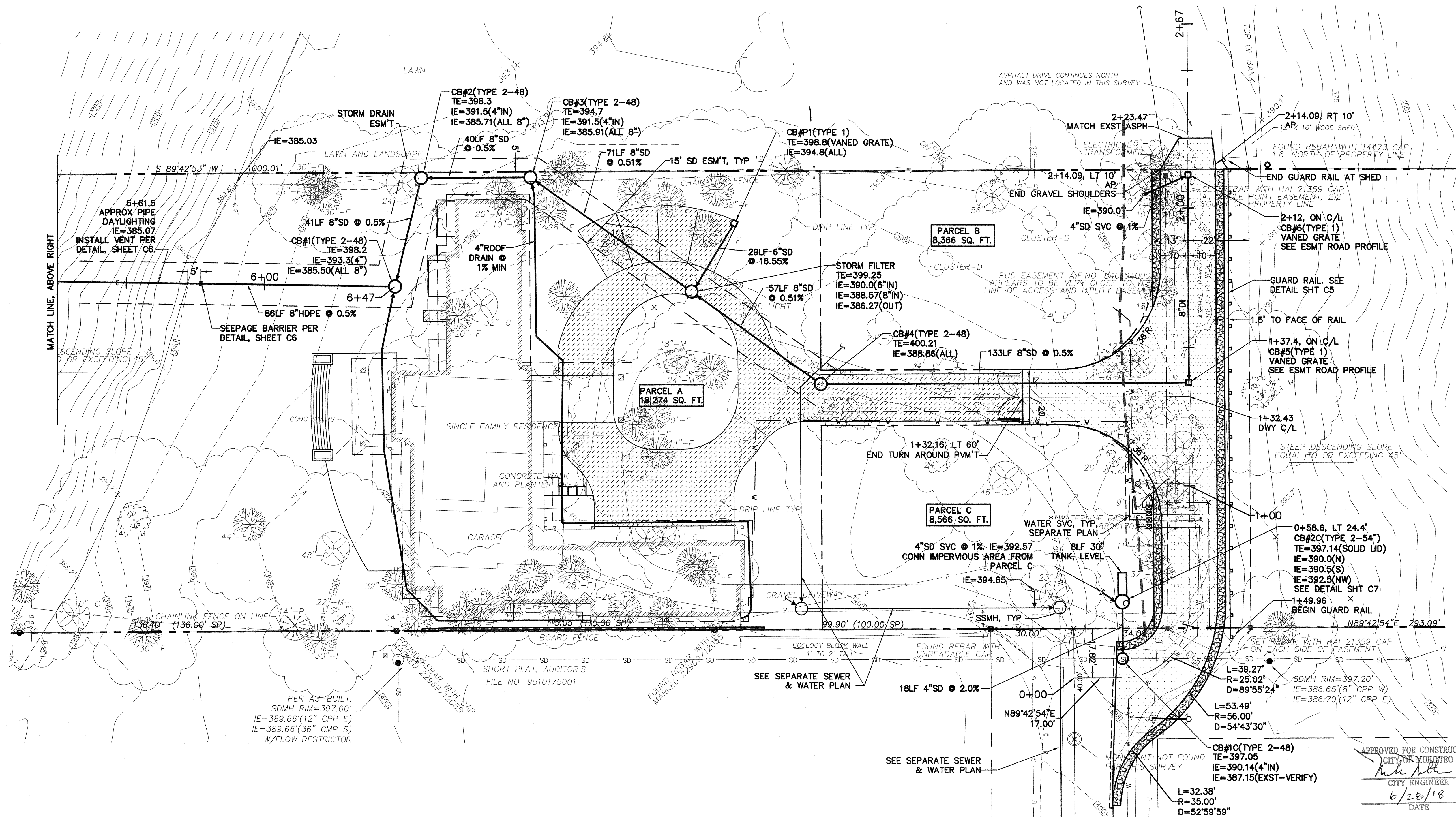
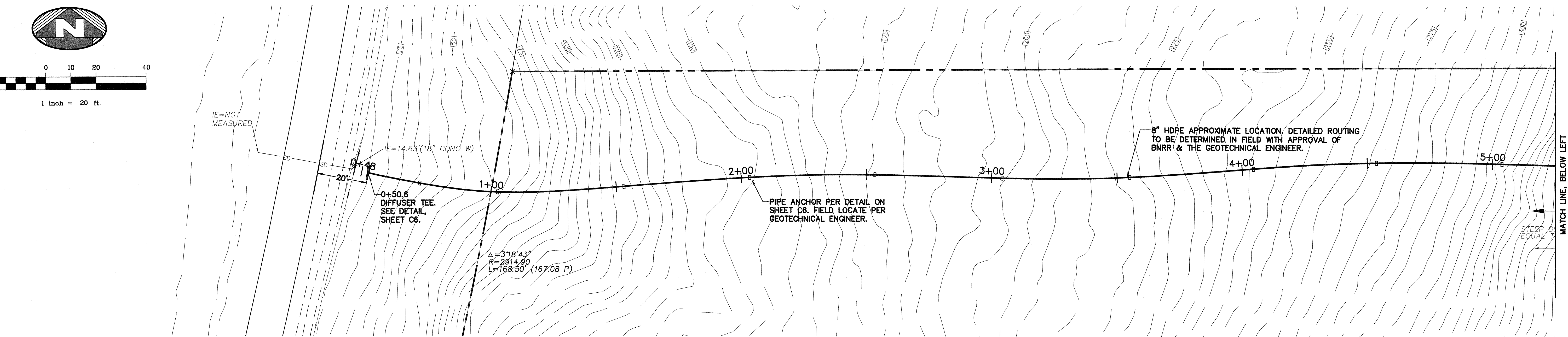
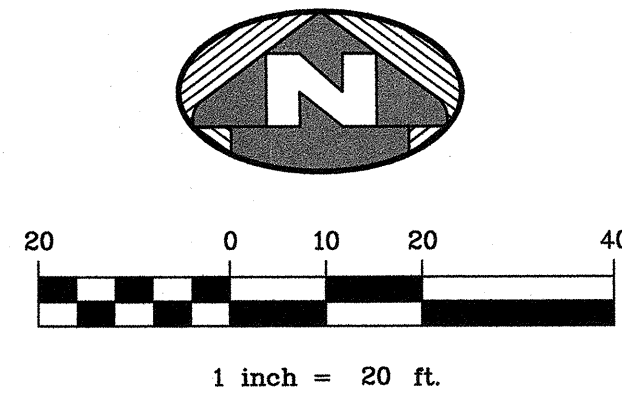
SPECIAL NOTE:
LIMITED GRADING WILL OCCUR OUTSIDE OF THE DELINEATED GRADING LIMITS FOR THE PURPOSE OF FINISHED LANDSCAPING AND TREE AND STUMP REMOVAL. NO MATERIAL WILL BE IMPORTED OR EXPORTED EXCEPT THE AMENDED SOIL, AS REQUIRED.



SDS
SITE DEVELOPMENT SERVICES
3011 RAVEN CREST
BELLINGHAM, WA 98226
(425) 481-9687
DAVESDS49@GMAIL.COM

2/5/20 REVISED SPECIAL NOTE
6/1/18 REVISED PER 5/25/18 LETTER FROM CITY
4/16/18 REVISED PER 2/16/18 LETTER FROM CITY
11/24/17 REVISED PER CITY COMMENTS

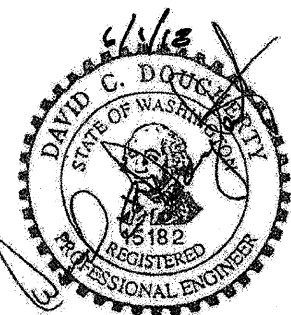
NEW RESIDENCE	
7908 53RD AVE W	
DATE: 5/31/17 PERMIT SUBMITTAL	DES: DCD
SCALE: 1"=20'	DWN: DCD
GRADING PLAN	
OWNER/APPLICANT: ZHANG FAMILY LLC 9800 HARBOUR PL, SUITE 100 MUKILTEO, WA 98275	



SPECIAL NOTES:

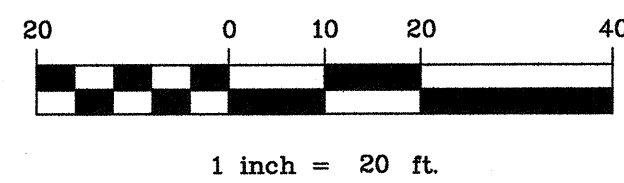
1. VERIFY EXISTING TOPOGRAPHY IN AREA OF PROPOSED CONSTRUCTION PRIOR TO ANY WORK. NOTIFY ENGINEER IF CONFLICTS ARE IDENTIFIED.
2. VERIFY DEPTH AND LOCATION OF ALL EXISTING UTILITIES (WHETHER OR NOT SHOWN) IN POTENTIAL CONFLICT W/ PROPOSED CONSTRUCTION PRIOR TO ANY WORK.
3. CONNECT FOOTING DRAINS FROM PARCEL A TO CB#1, 2 OR 3. FOOTING DRAINS FOR THE OTHER PARCELS SHALL BE CONNECTED TO THE DRAINAGE SERVICES PROVIDED FOR THE RESPECTIVE PARCELS.
4. ALL CATCH BASIN LIDS SHALL BE SOLID LOCKING UNLESS CALLED OUT AS "VANED GRATE".
5. ALL IMPERVIOUS AREA ON PARCEL C SHALL DRAIN TO CB#2C.
6. "SD" SHALL BE LINED, CORRUGATED POLYETHYLENE (CPE) PIPE. ALTERNATIVE MATERIALS MUST BE APPROVED BY THE CITY'S INSPECTOR AND BE SUITABLE FOR TRAFFIC LOADS.
7. "DI" SHALL BE DUCTILE IRON CLASS 50 OR 52.

- PRECAST PAVERS. SEE ARCHITECTURAL DRAWINGS FOR MORE INFORMATION
- ASPH PAVING
- GRAVEL SHOULDER

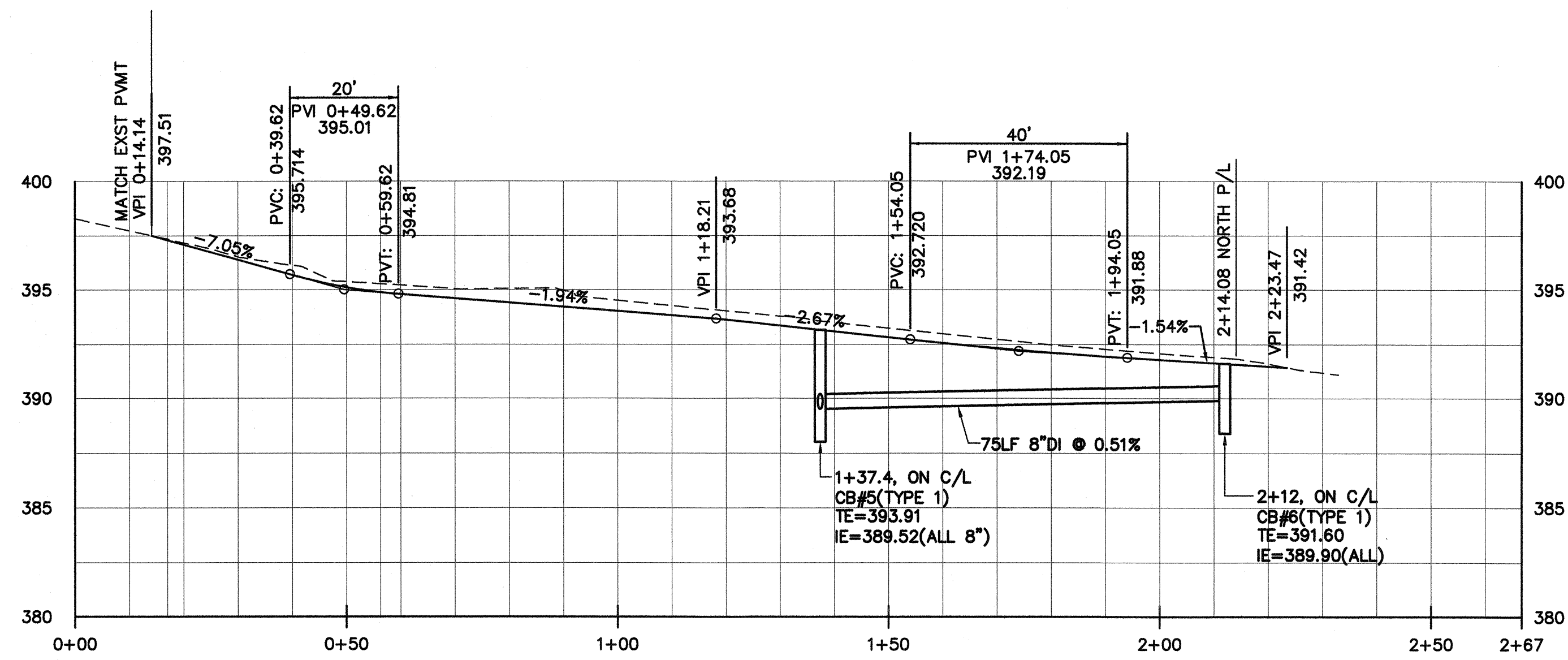


SDS
SITE DEVELOPMENT SERVICES
3011 RAVEN CREST
BELLINGHAM, WA 98226
(425) 481-9687
DAVE.SDS@Q.COM

6/1/18 REVISED PER 5/25/18 LETTER FROM CITY	
4/16/18 REVISED PER 2/16/18 LETTER FROM CITY	
11/24/17 REVISED PER CITY COMMENTS	
NEW RESIDENCE 7908 53RD AVE W	
DATE: 5/31/17 PERMIT SUBMITTAL	DES: DCD
SCALE: 1"=20'	DWN: DCD
RDWY & DRAINAGE PLAN	
OWNER/APPLICANT: ZHANG FAMILY LLC 9800 HARBOUR PL, SUITE 100 MUKILTEO, WA 98275	

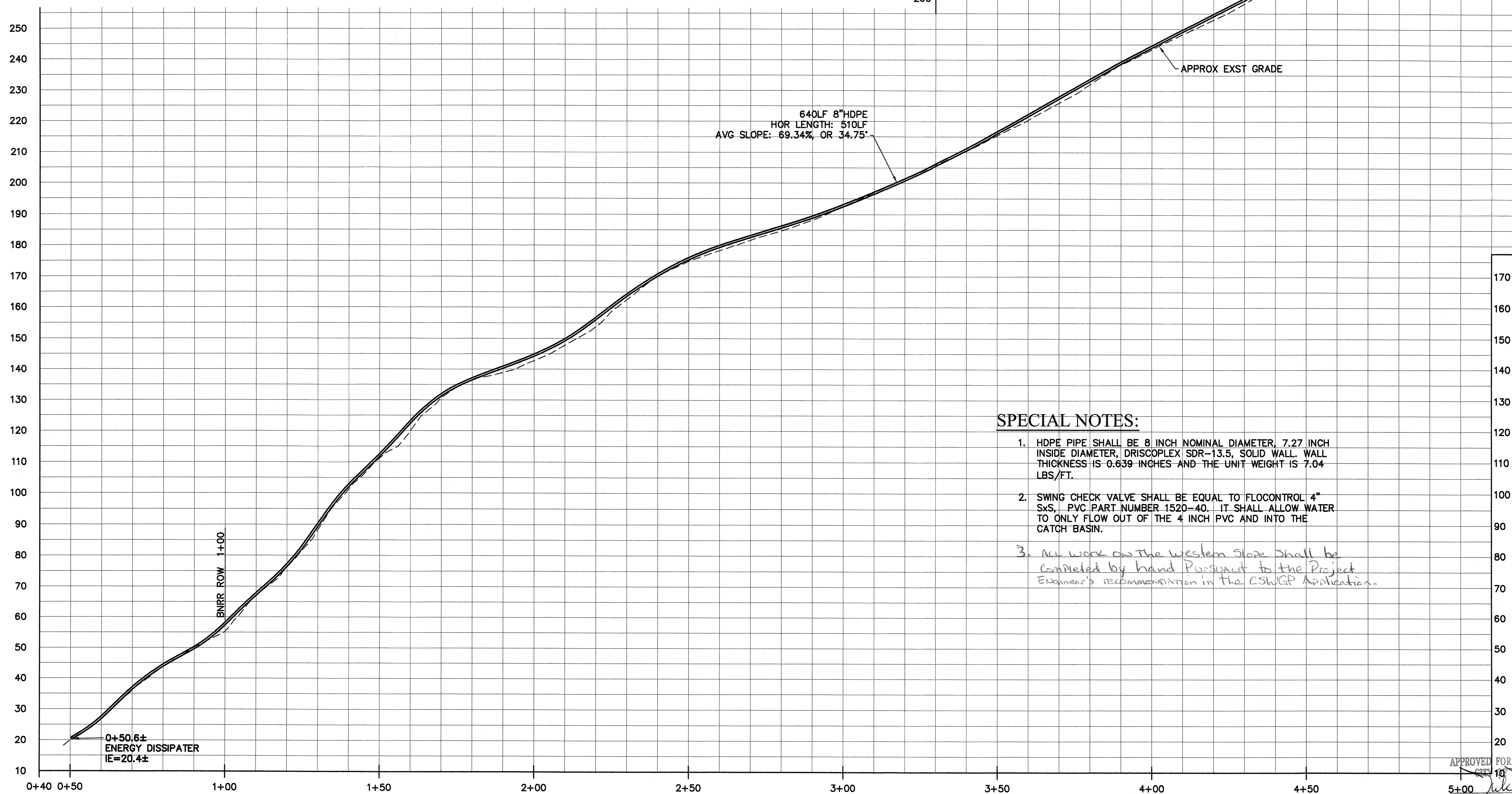
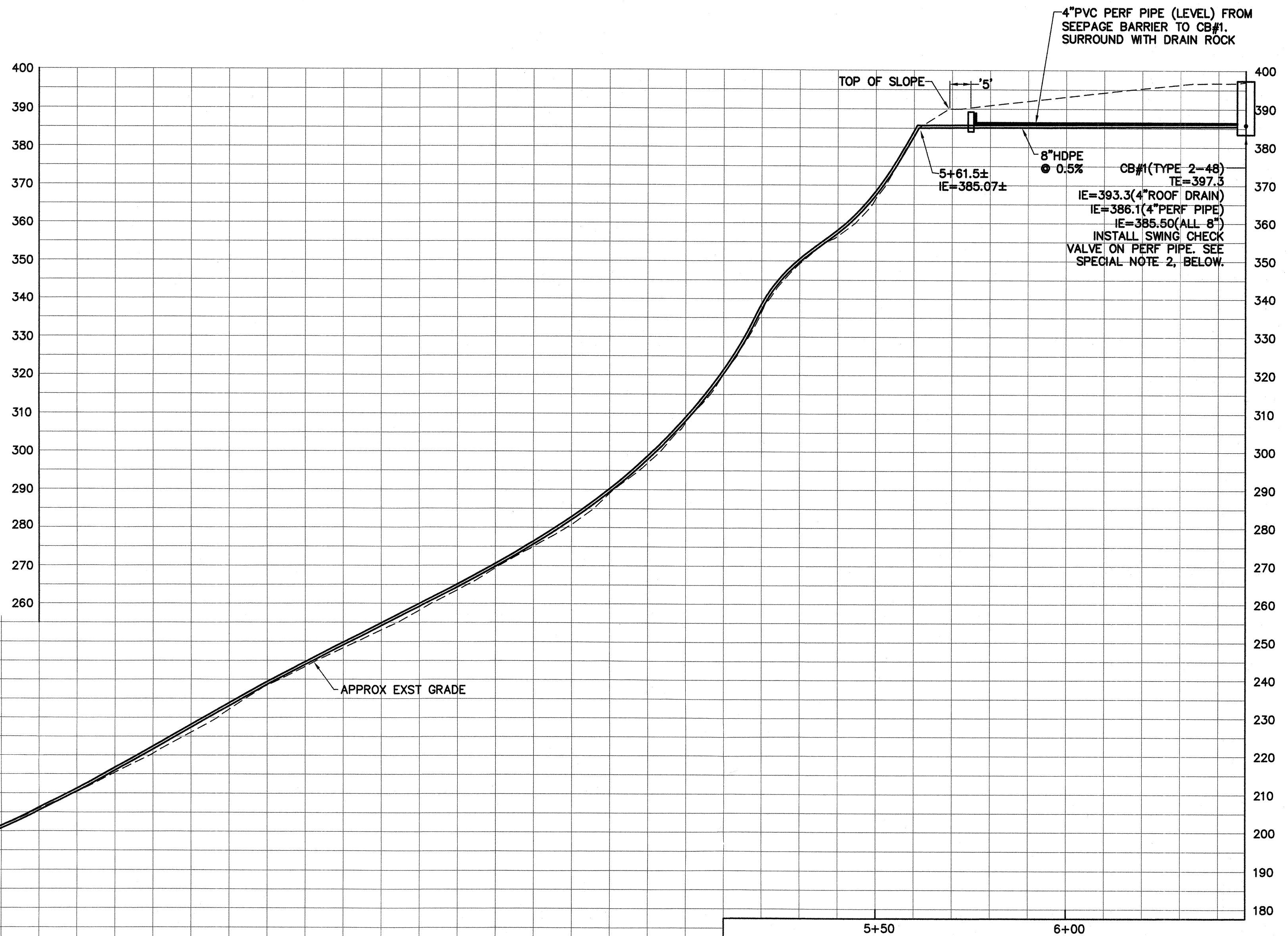


SW¼, SEC 9, TWP 28N, RGE 4E



EASEMENT ROAD PROFILE

HOR: 1"=20'
VERT: 1"=5'



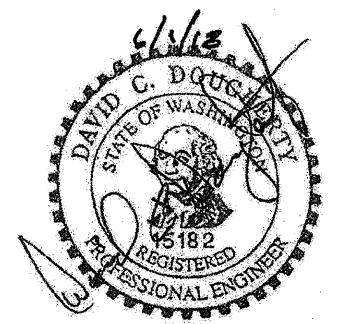
STORM DRAIN OUTFALL PROFILE

HOR: 1"=20' VERT: 1"=20'

SPECIAL NOTES:

1. HDPE PIPE SHALL BE 8 INCH NOMINAL DIAMETER, 7.27 INCH INSIDE DIAMETER, DRISCOPEX SDR-13.5, SOLID WALL. WALL THICKNESS IS 0.639 INCHES AND THE UNIT WEIGHT IS 7.04 LBS/FT.
2. SWING CHECK VALVE SHALL BE EQUAL TO FLOCONTROL 4" SxS. PVC PART NUMBER 1520-40. IT SHALL ALLOW WATER TO ONLY FLOW OUT OF THE 4 INCH PVC AND INTO THE CATCH BASIN.
3. All work on the western slope shall be completed by hand Pursuant to the Project Engineer's recommendation in the CSWGP Application.

APPROVED FOR CONSTRUCTION
CITY ENGINEER
DATE
W/REVISIONS



SDS
SITE DEVELOPMENT SERVICES
3011 RAVEN CREST
BELLINGHAM, WA 98226
(425) 481-9687
DAVE.SDS@Q.COM

4/16/18 REVISED PER 2/16/18 LETTER FROM CITY
11/24/17 REVISED PER CITY COMMENTS

NEW RESIDENCE

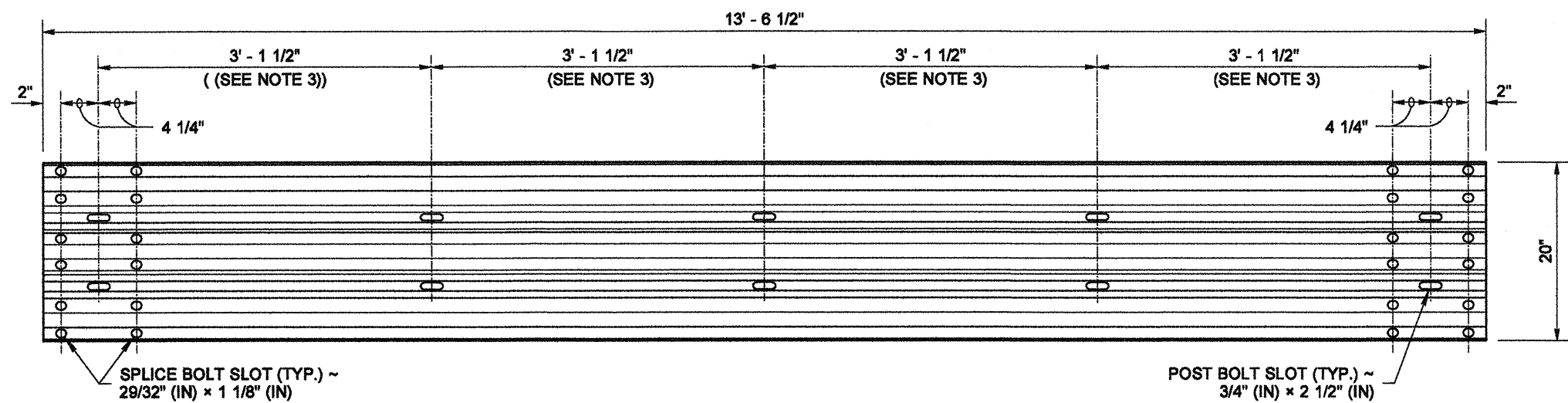
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DATE: 5/31/17 PERMIT SUBMITTAL DES: DCD
SCALE: 1"=20' DWN: DCD

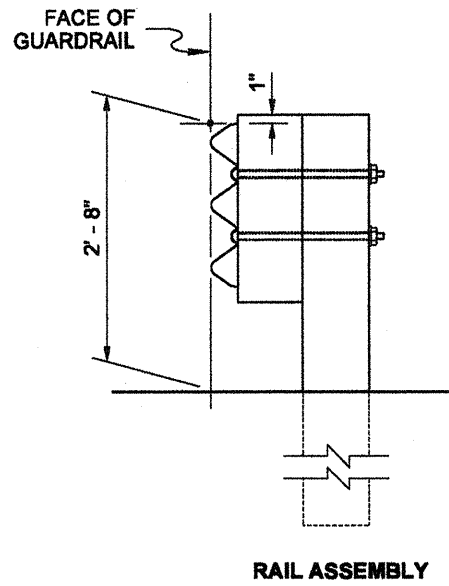
PROFILES

OWNER/APPLICANT:
ZHANG FAMILY LLC
9800 HARBOUR PL, SUITE 100
MUKILTEO, WA 98275

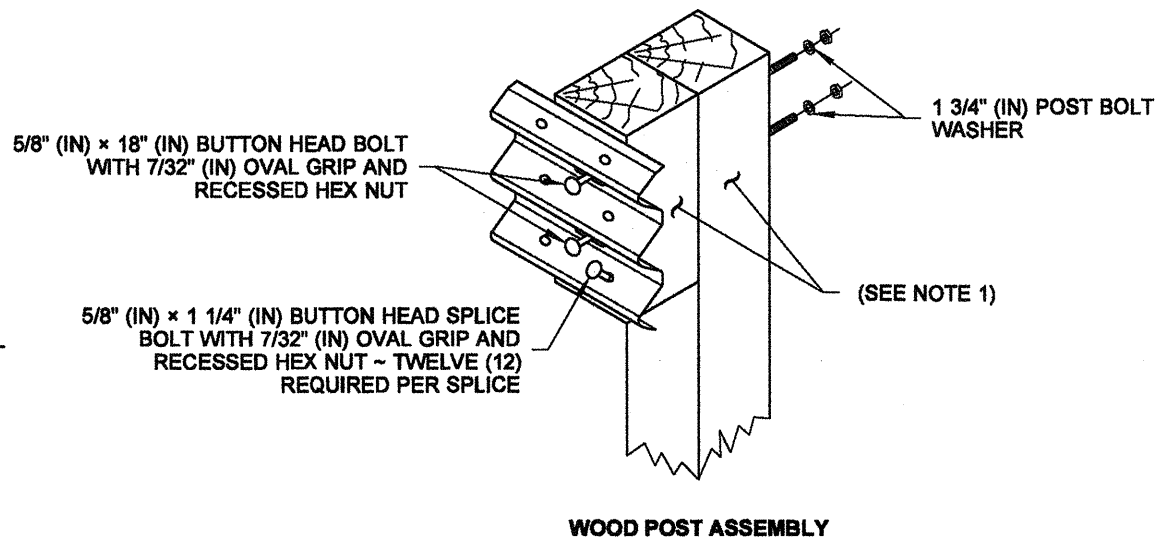
DRAWN BY: FERN LIDDELL



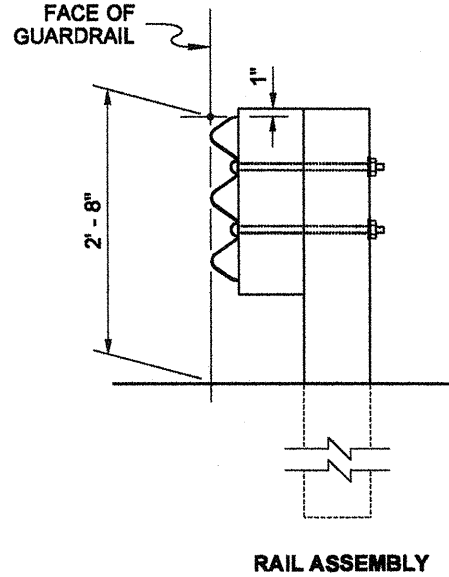
TYPICAL RAIL ELEMENT



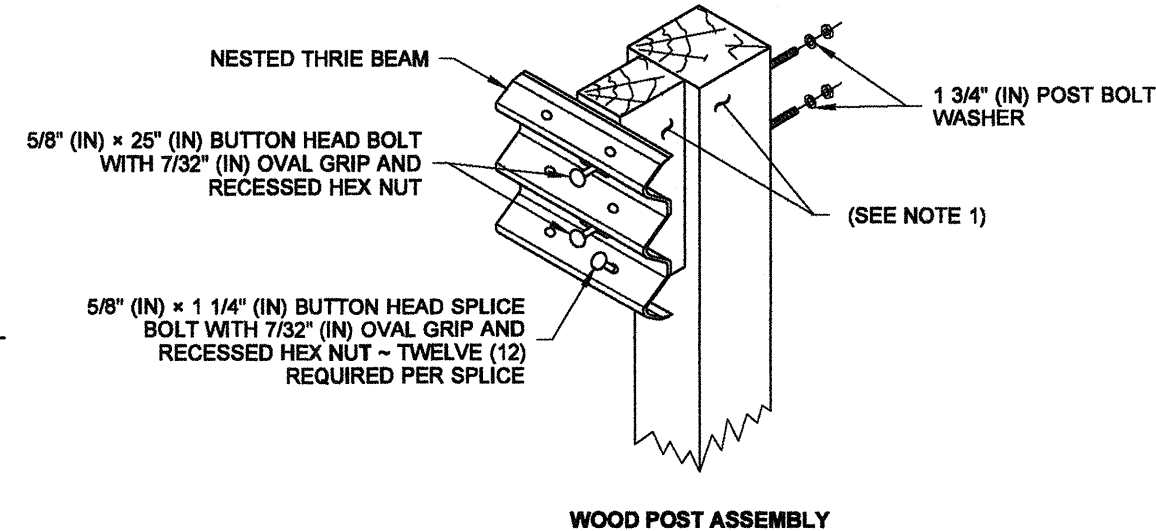
RAIL ASSEMBLY



WOOD POST ASSEMBLY



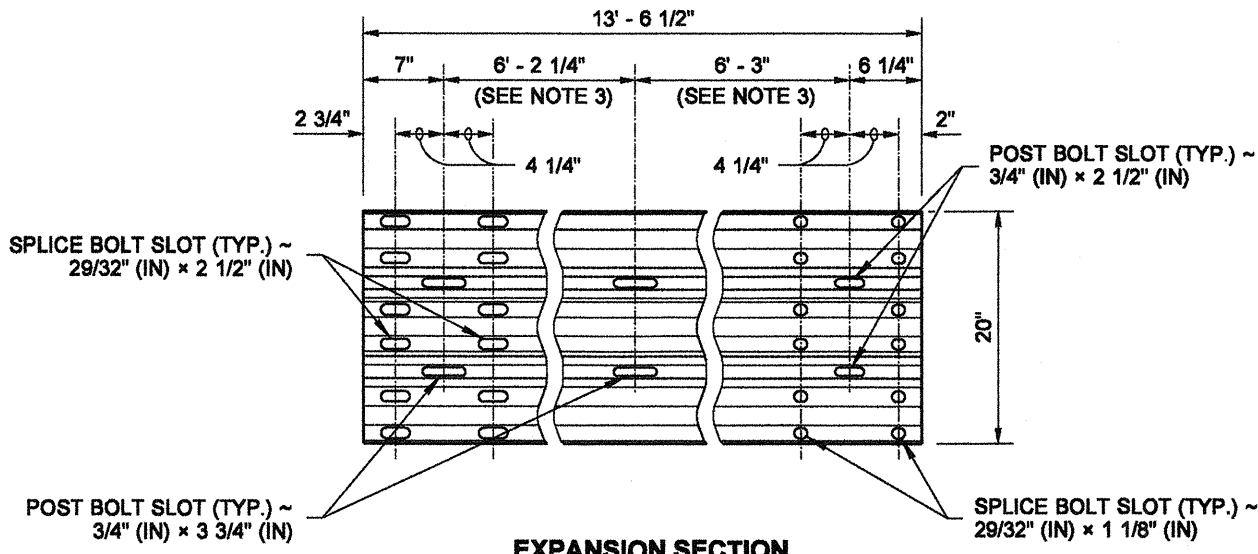
RAIL ASSEMBLY



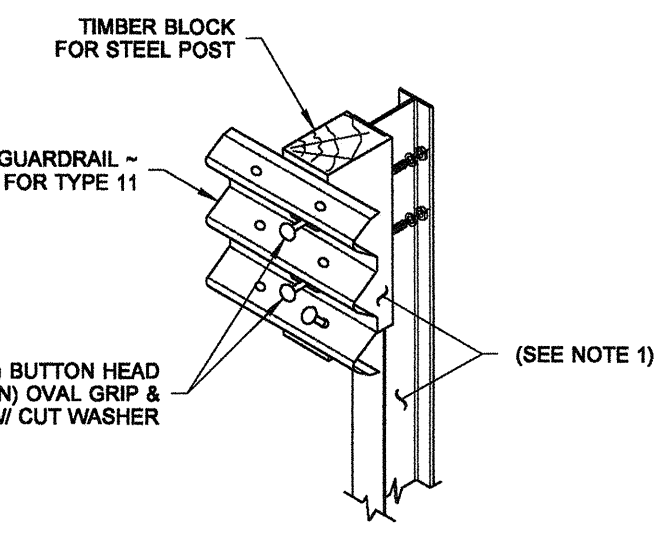
WOOD POST ASSEMBLY

TYPE 10

TYPE 11



EXPANSION SECTION

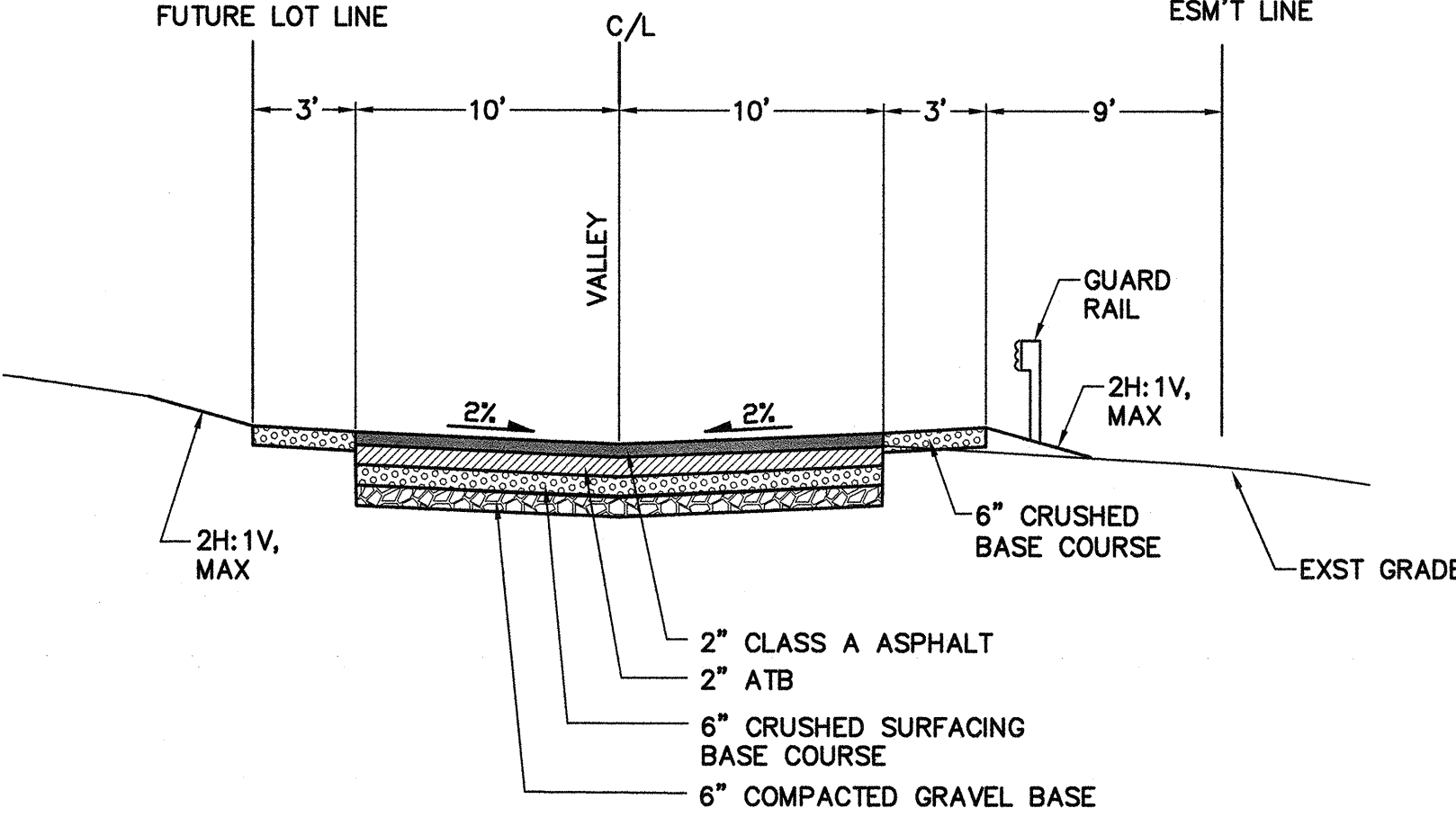
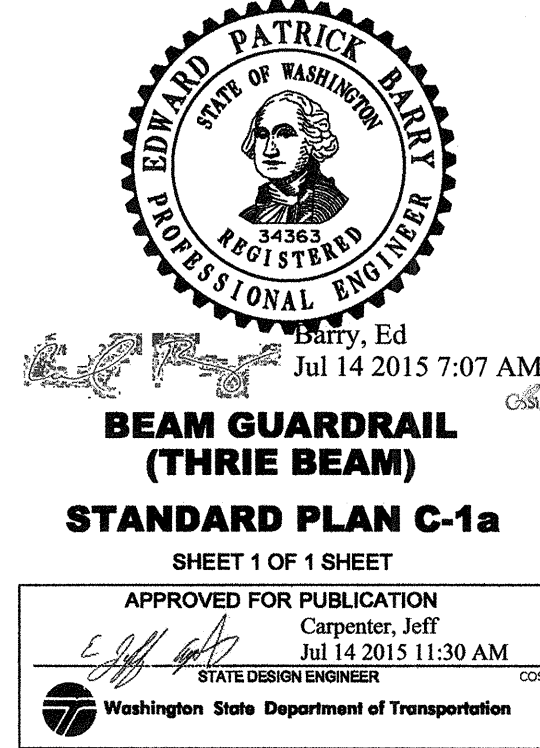


STEEL POST ASSEMBLY

TYPES 10 AND 11

NOTES

1. Type 10 post shall be 6 x 8 timber, OR either W6 x 9, or W6 x 8.5 steel. Type 11 post shall be 10 x 10 timber or W6 x 15. For additional details see **Standard Plan C-1b**.
2. Type 10 guardrail post spacing shall be 6' - 3" on center. Type 11 shall be a maximum of 3' - 1 1/2" on center.
3. Spacing may vary depending on application. See **Standard Specification Section 9-16.3(1)** for rail element requirements.

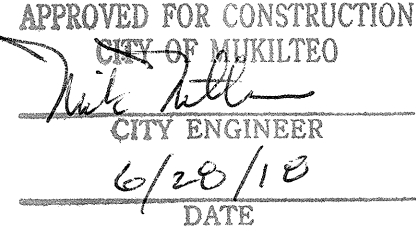
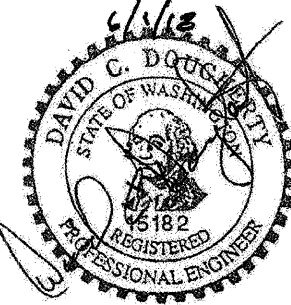


NOTES:

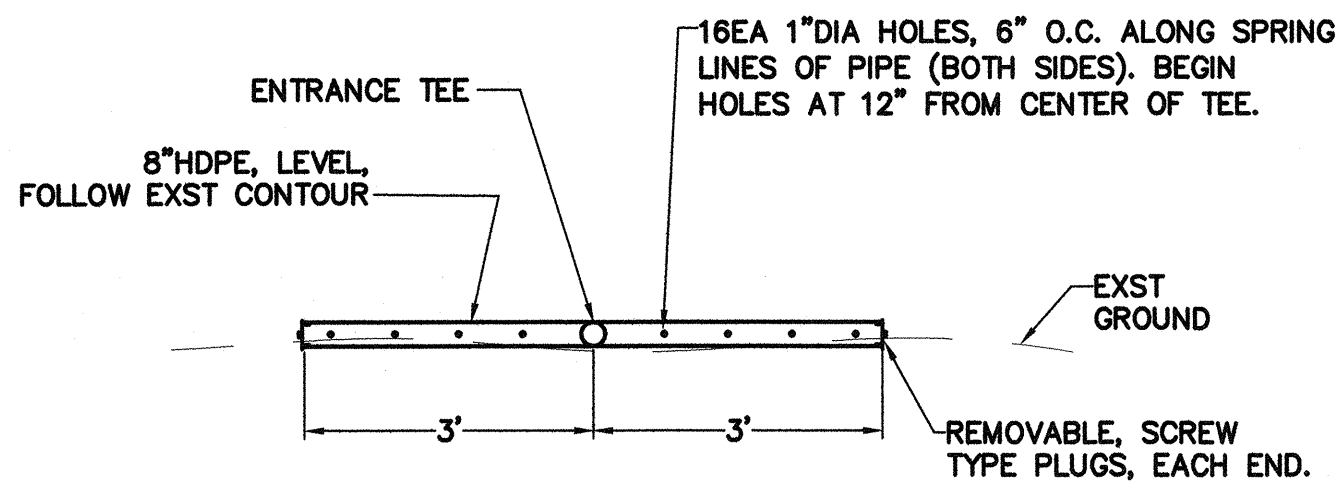
1. ALL DEPTHS ARE COMPACTED.
2. SEE PLAN VIEW FOR SAW CUT AT ENDS OF WORK

PRIVATE ROAD SECTION

NTS



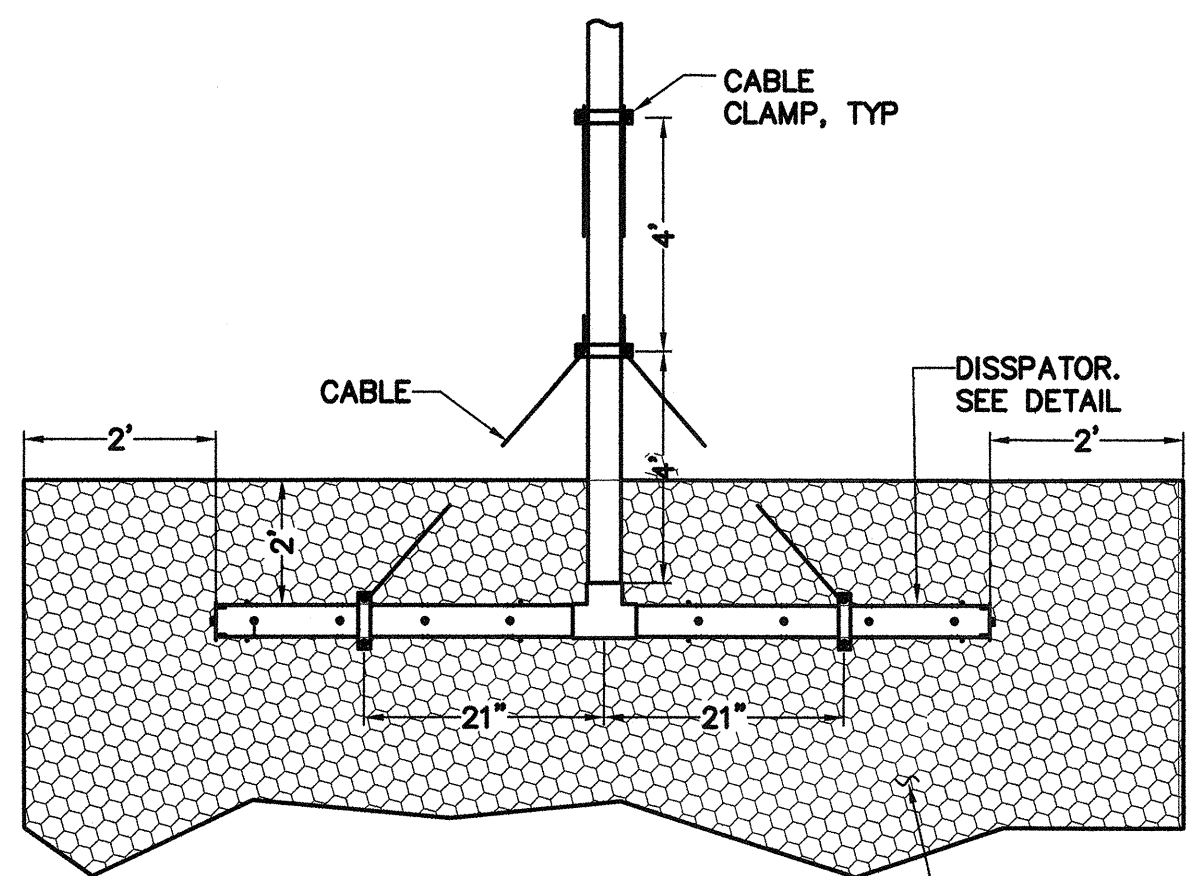
4/16/18 REVISED PER 2/16/18 LETTER FROM CITY	
11/24/17 REVISED PER CITY COMMENTS	
NEW RESIDENCE	
7908 53RD AVE W	
DATE: 5/31/17 PERMIT SUBMITTAL	DES: DCD
SCALE: AS NOTED	DWN: DCD
ROADWAY DETAILS	
OWNER/APPLICANT:	
ZHANG FAMILY LLC	
9800 HARBOUR PL, SUITE 100	
MUKILTEO, WA 98275	



NOTE:
PREPARE EXST GROUND BY REMOVING FOREST
DUFF AND LOOSE TOPSOIL. PLACE PIPE ON 3"
OF 1½" MINUS CRUSHED GRAVEL. ALL WORK
TO BE DONE USING ONLY HAND TOOLS.

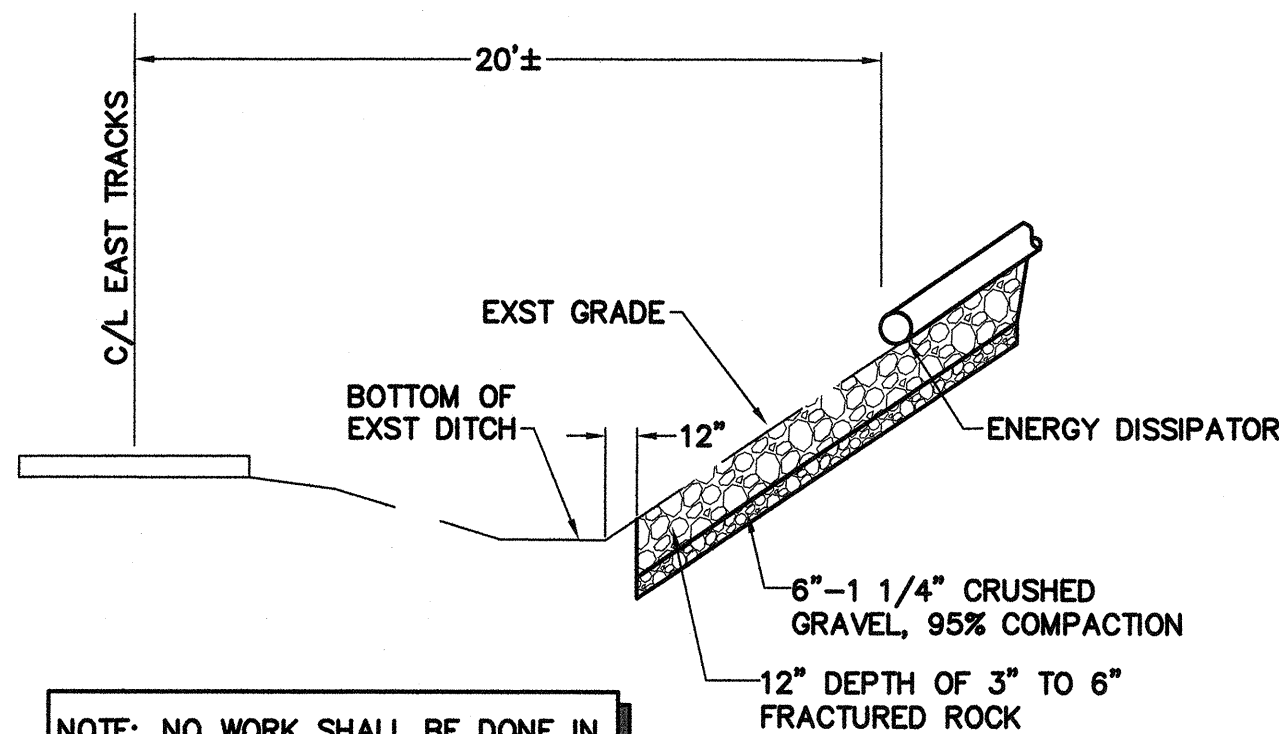
DIFFUSER DETAIL

NTS



DIFFUSER ANCHOR DETAIL

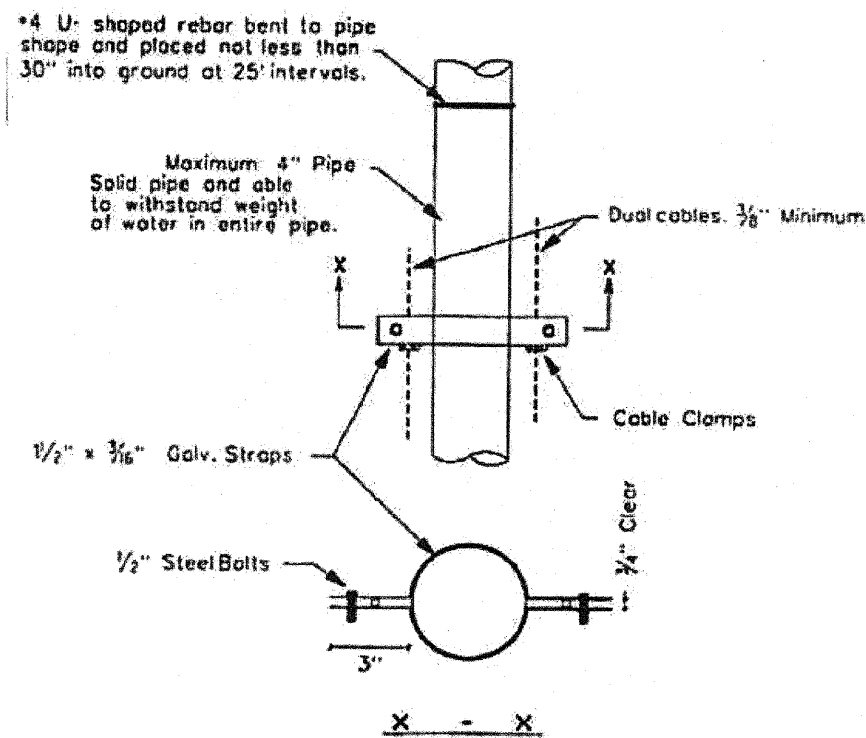
NTS



NOTE: NO WORK SHALL BE DONE IN
THE DITCH BOTTOM.

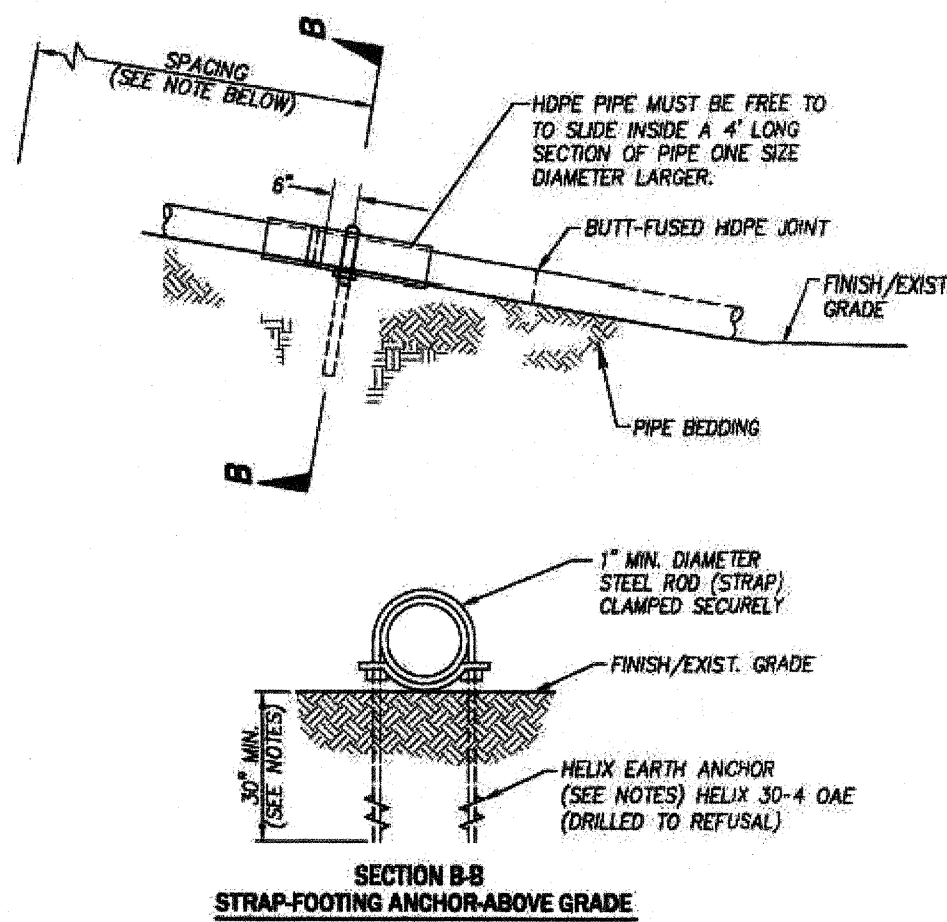
OUTFALL SECTION

NTS



CABLE CLAMP DETAIL

NTS

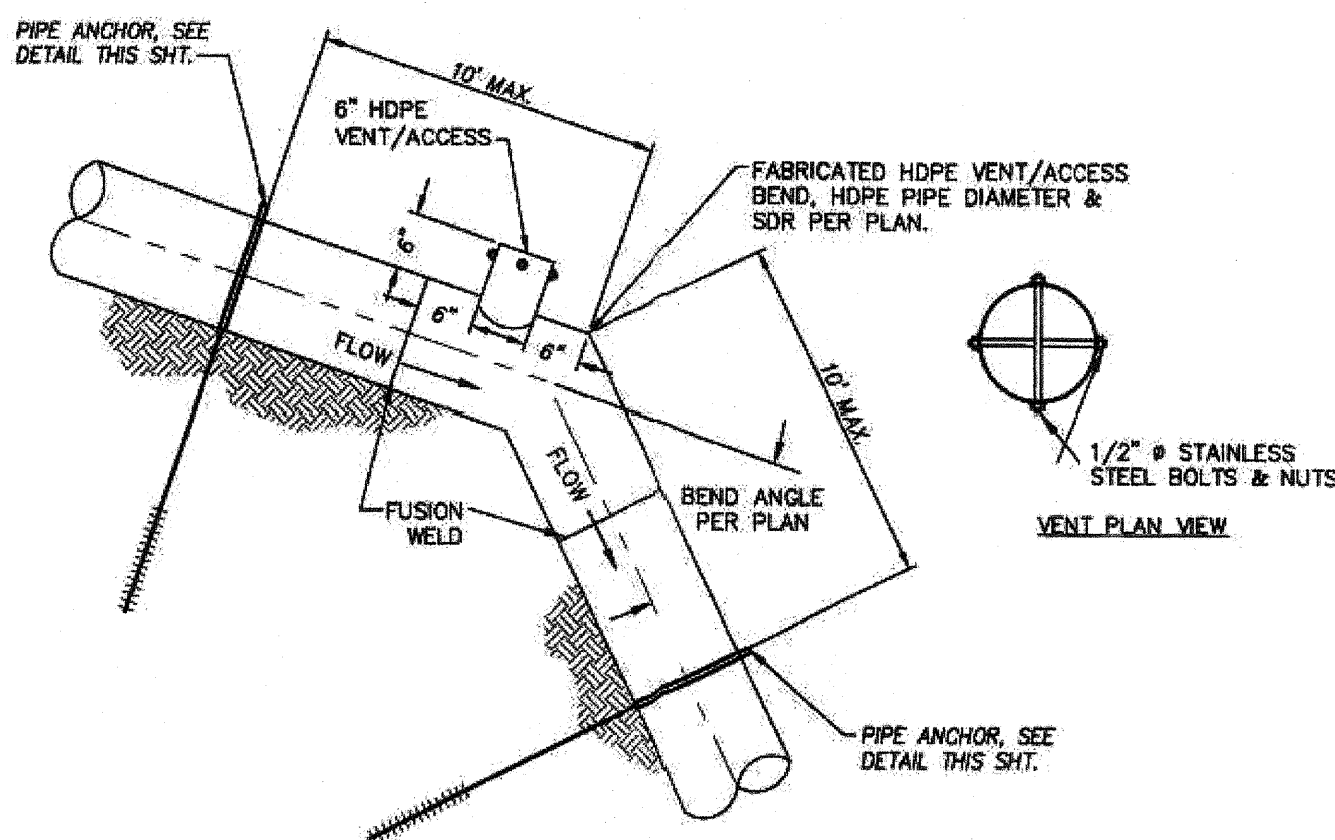


SECTION B-B
STRAP-FOOTING ANCHOR-ABOVE GRADE

NOTE:
THE CONTRACTOR SHALL COORDINATE WITH THE PROJECT
GEOTECHNICAL ENGINEER TO FIELD VERIFY THE SOIL CONDITIONS
DURING CONSTRUCTION AND CONFIRM THE REQUIRED EARTH
ANCHOR EMBEDMENT DEPTH AND SPACING OF ANCHORS

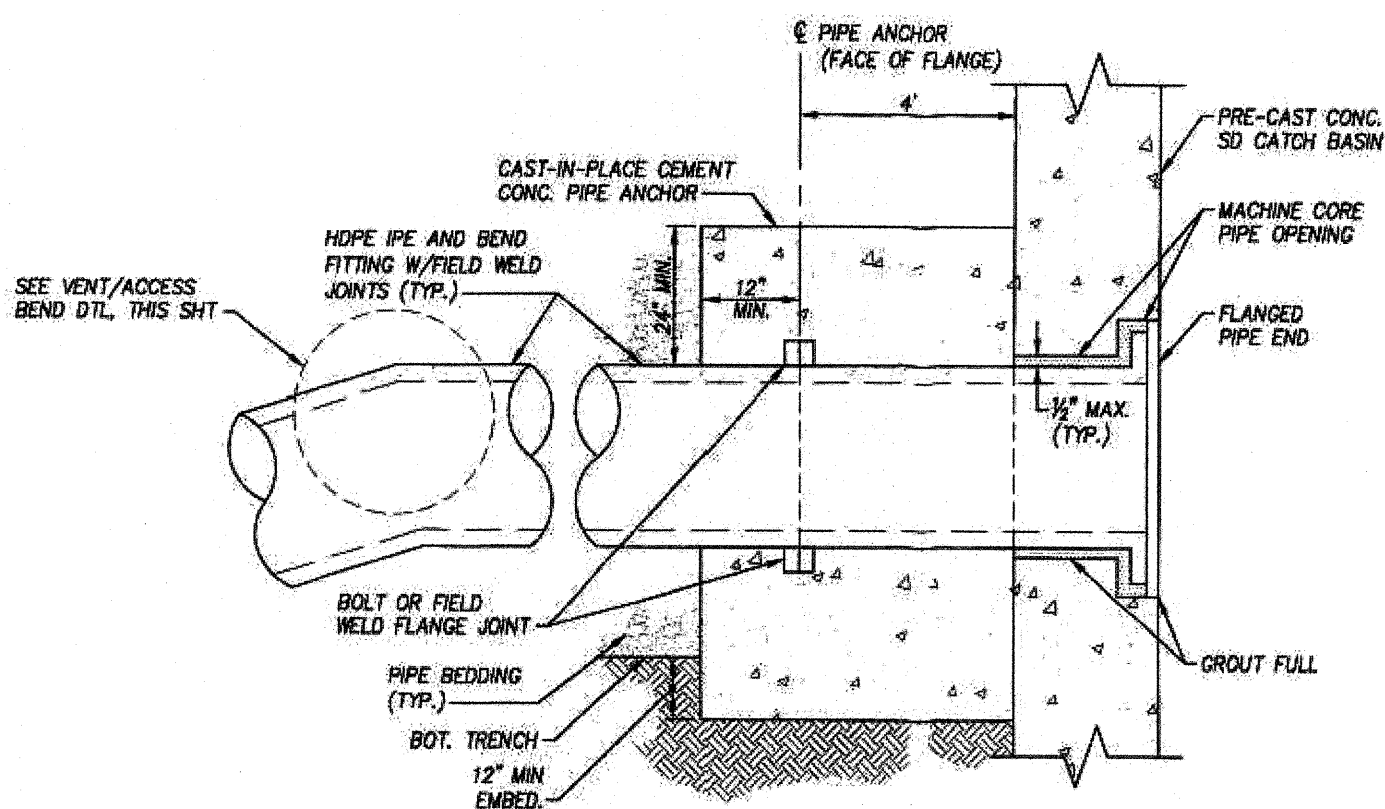
PIPE LINE ANCHOR DETAIL

NTS



HDPE VENT DETAIL

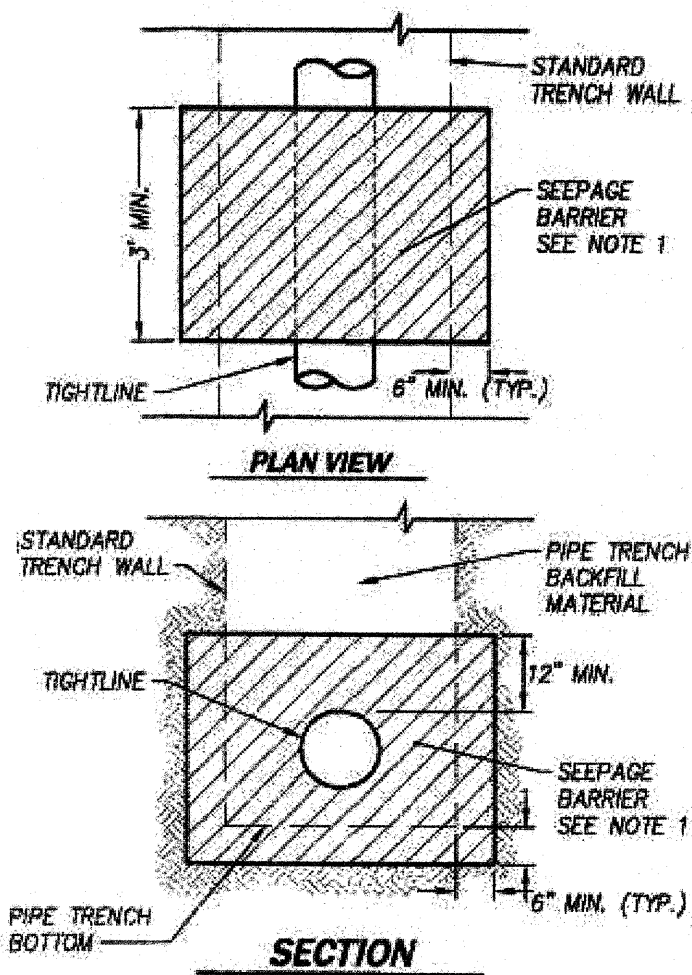
NTS



NOTE: THE EMBEDMENT DEPTH SHALL BE A MINIMUM
OF 12 INCHES ON THE SIDES OF THE TRENCH.

HDPE CB CONNECTION DETAIL

NTS



NOTE:
1. SEEPAGE BARRIER MATERIAL SHALL BE COMPACT GLACIAL TILL
OR OTHER APPROVED IMPERMEABLE MATERIAL.
2. SEEPAGE BARRIER MAY BE REQUIRED IN ADDITION TO THOSE
SHOWN ON THESE PLANS TO ACCOMMODATE ACTUAL GROUND
WATER CONDITIONS AT THE TIME OF CONSTRUCTION AS
DIRECTED BY THE ENGINEER.

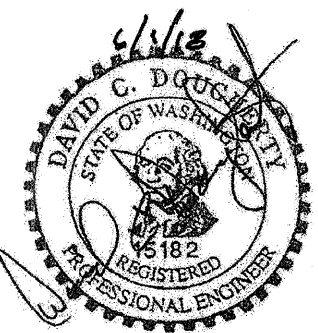
SEEPAGE BARRIER DETAIL

NTS

SPECIAL NOTES:

1. CALL BNSF CALL BEFORE YOU DIG NUMBERS BEFORE
CONSTRUCTION ACTIVITIES BEGIN: "CALL BEFORE YOU DIG"
NUMBERS - BNSF FIBER - 1-800-533-2891; BNSF SIGNAL -
1-800-832-5452.
2. ANY IMPACTS TO BNSF DITCHES AND TRACK ROADBED STRUCTURE
MUST BE RESTORED TO ORIGINAL CONDITIONS OR BETTER BEFORE
PROJECT IS TO BE COMPLETED.
3. DEBRIS IN DITCHES MUST BE CLEARED IN THE PATH OF FLOW FROM
THE POINT OF DISCHARGE TO NEARBY DOWNSTREAM CULVERT(S).
4. ANY UPHILL WORK WITH POTENTIAL OF ACTIVITIES OR MATERIALS
TO FOUL BNSF TRACK MUST BE DONE UNDER ADEQUATE TRACK
PROTECTION AS SET BY BNSF.
5. IF THERE IS A SLIDE DETECTION FENCE AT THIS LOCATION THEN
THE FENCE MUST BE RE-ESTABLISHED IN ITS PRESENT POSITION
AFTER THE PROJECT IS COMPLETE. ALL ELEMENTS OF THE SPLASH
PAD AND OUTFALL SYSTEM MUST BE CONSTRUCTED UPLAND (I.E.,
AWAY FROM THE RR TRACKS) OF THE SLIDE DETECTION FENCE. IF
CONSTRUCTION ACTIVITIES REQUIRE THE FENCE TO BE RELOCATED
THEN BNSF WILL BE REIMBURSED FOR ALL ASSOCIATED WORK.

APPROVED FOR CONSTRUCTION
CITY OF MUKILTEO
CITY ENGINEER
6/28/18
DATE



SDS
SITE DEVELOPMENT SERVICES
3011 RAVEN CREST
BELLINGHAM, WA 98226
(425) 481-9687
DAVE.SDS@Q.COM

1/2/18 CHANGED LIMIT OF ROCK TO KEEP OUT OF DITCH AT OUTFALL
11/24/17 REVISED PER CITY COMMENTS

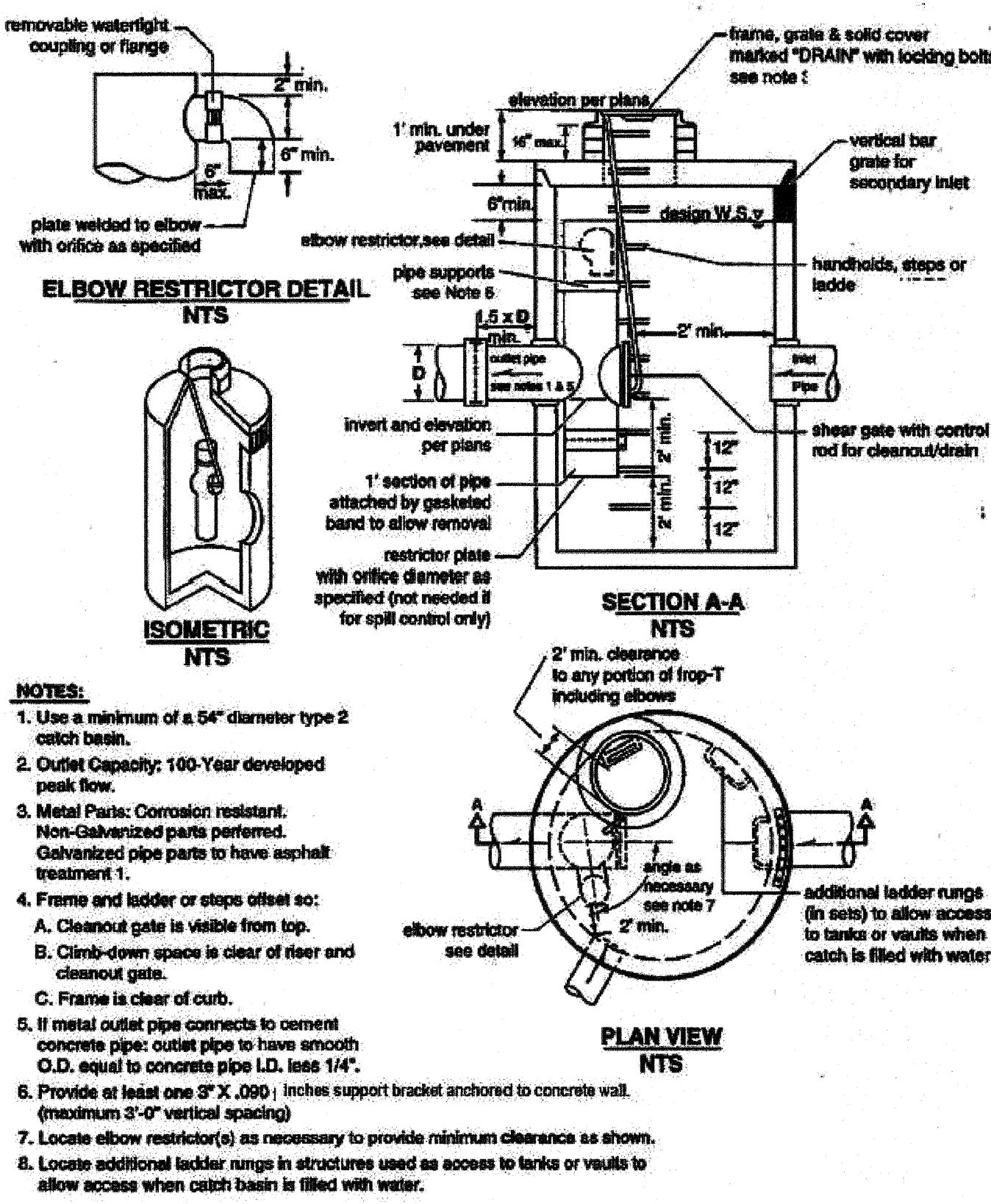
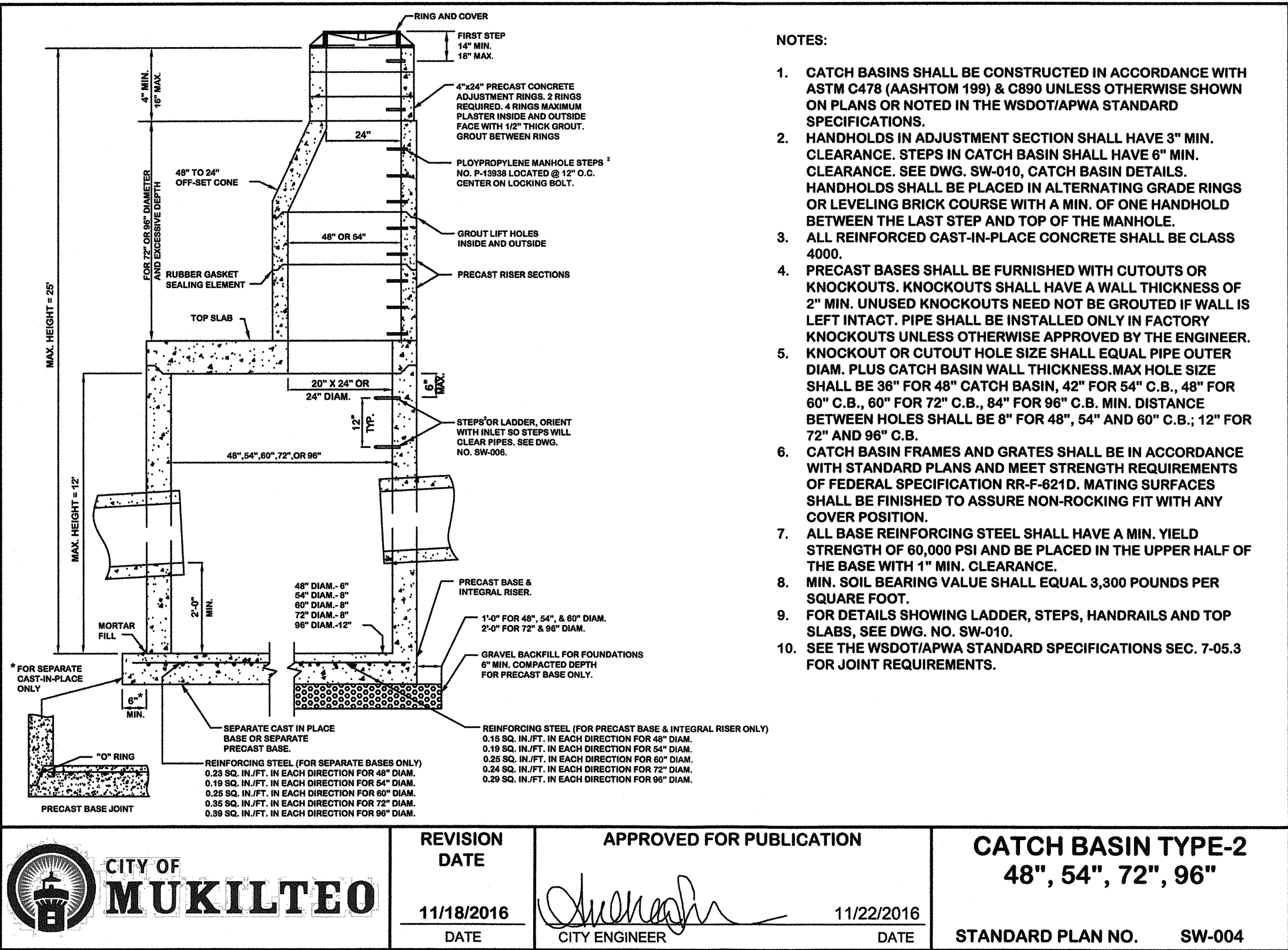
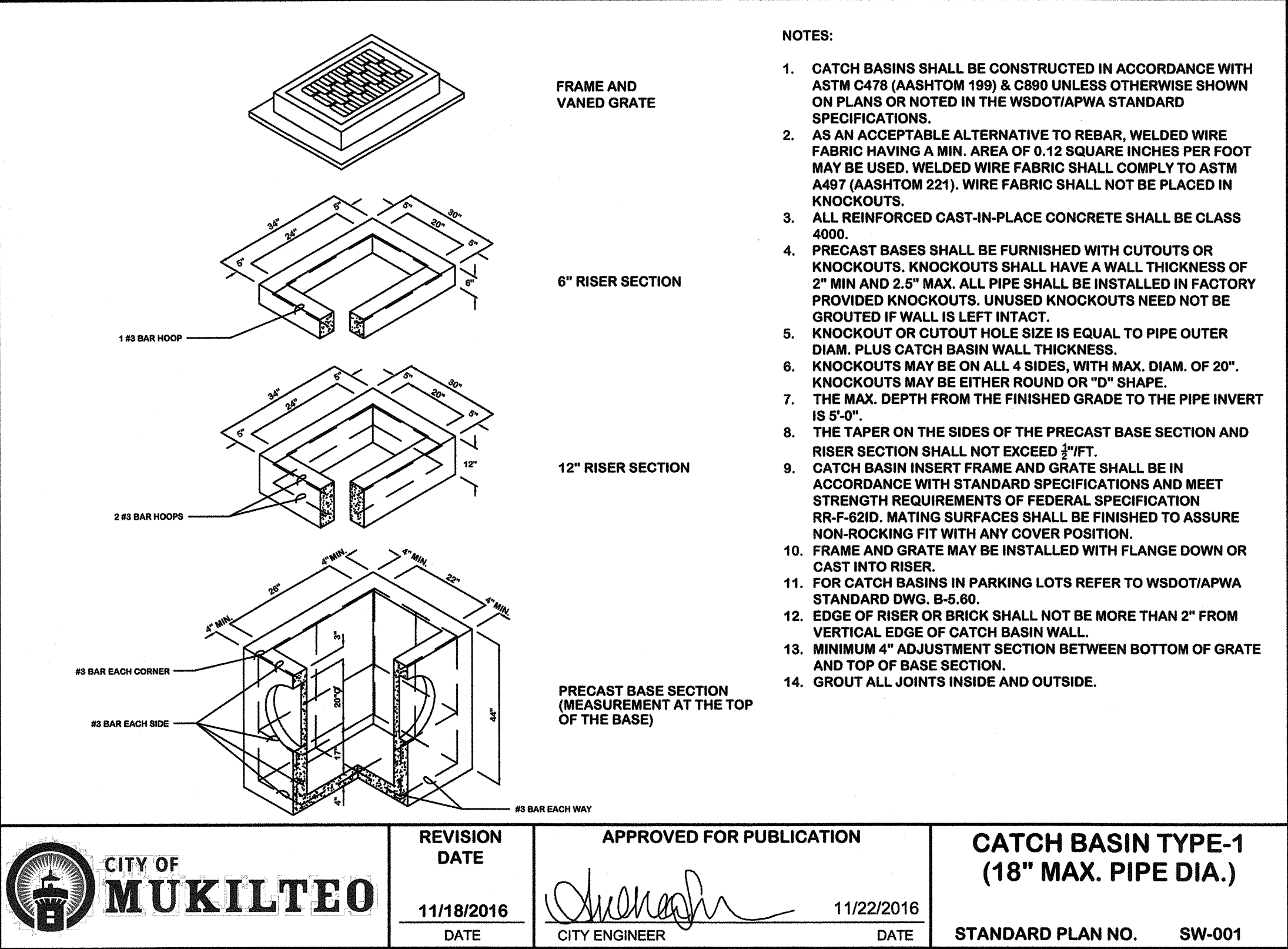
NEW RESIDENCE

7908 53RD AVE W

DATE: 5/31/17 PERMIT SUBMITTAL DES: DCD
SCALE: AS NOTED DWN: DCD

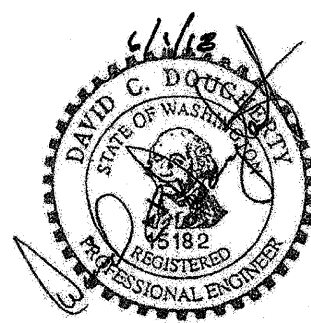
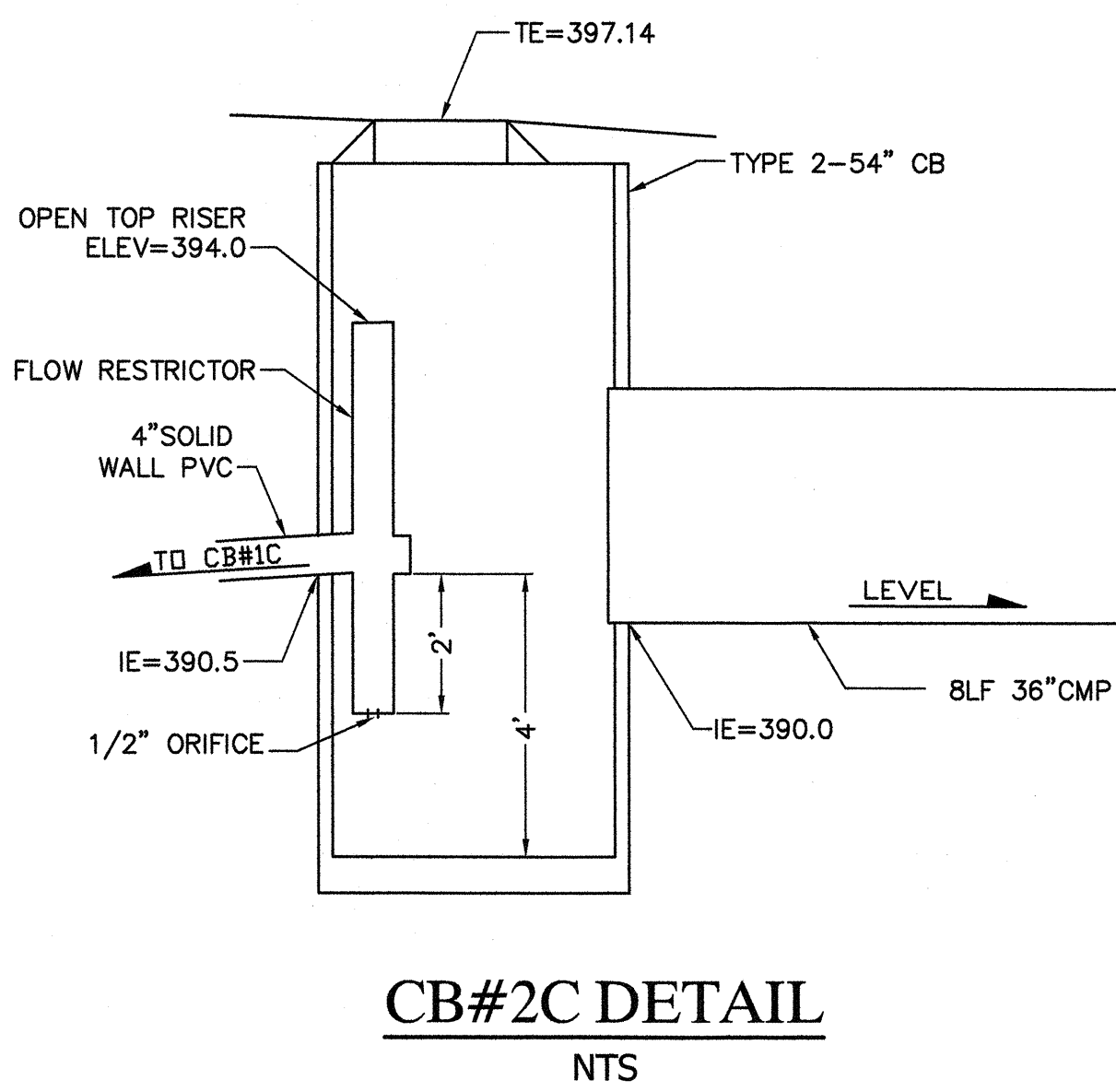
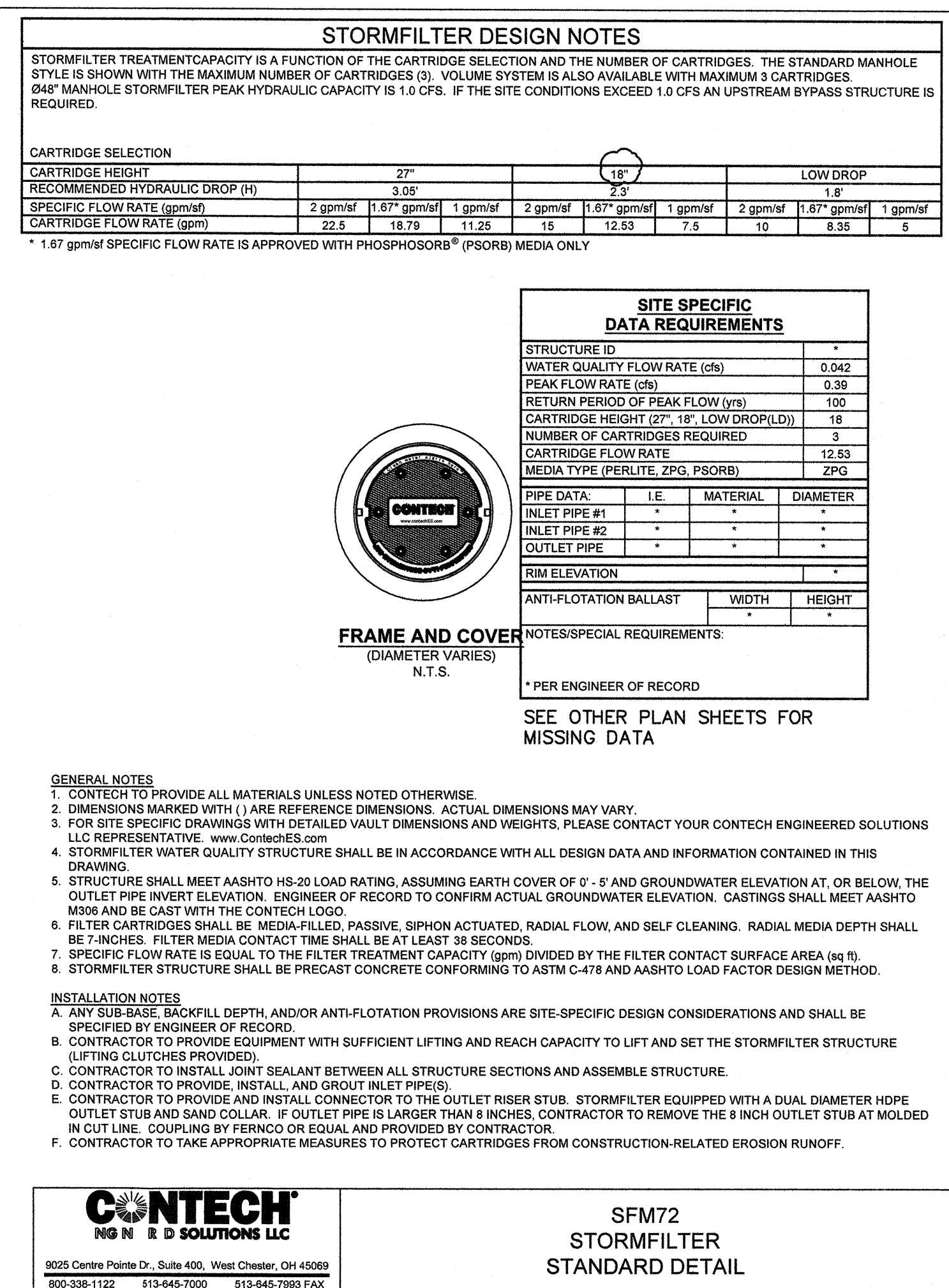
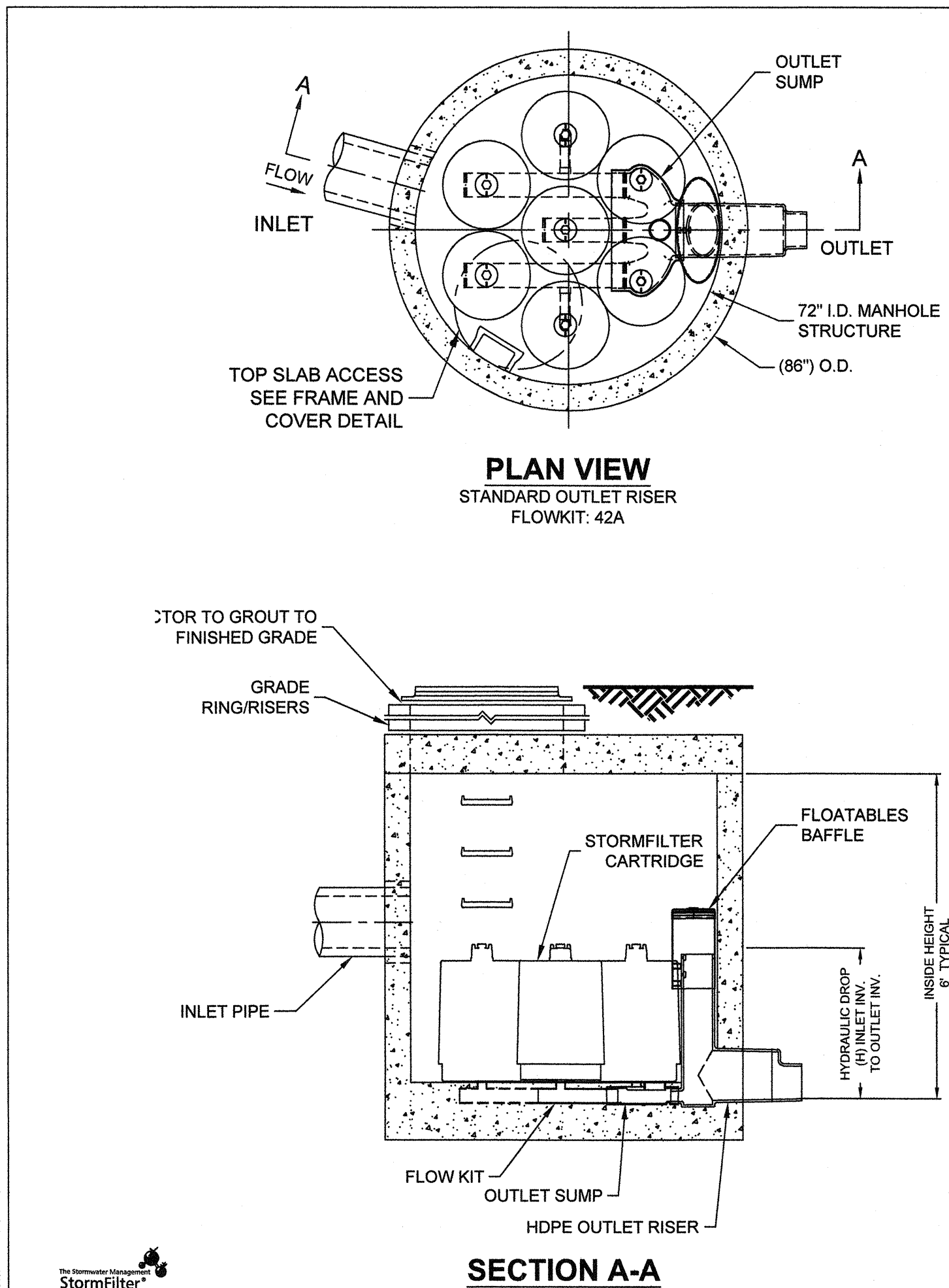
OUTFALL DETAILS

OWNER/APPLICANT:
ZHANG FAMILY LLC
9800 HARBOUR PL, SUITE 100
MUKILTEO, WA 98275



RESTRICTOR STD DETAIL

NTS



6/1/18 REVISED PER 5/25/18 LETTER FROM CITY

11/24/17 REVISED PER CITY COMMENTS

NEW RESIDENCE

7908 53RD AVE W

DATE: 5/31/17 PERMIT SUBMITTAL DES: DCD

SCALE: AS NOTED DWN: DCD

DRAINAGE STRUCTURE DETAILS

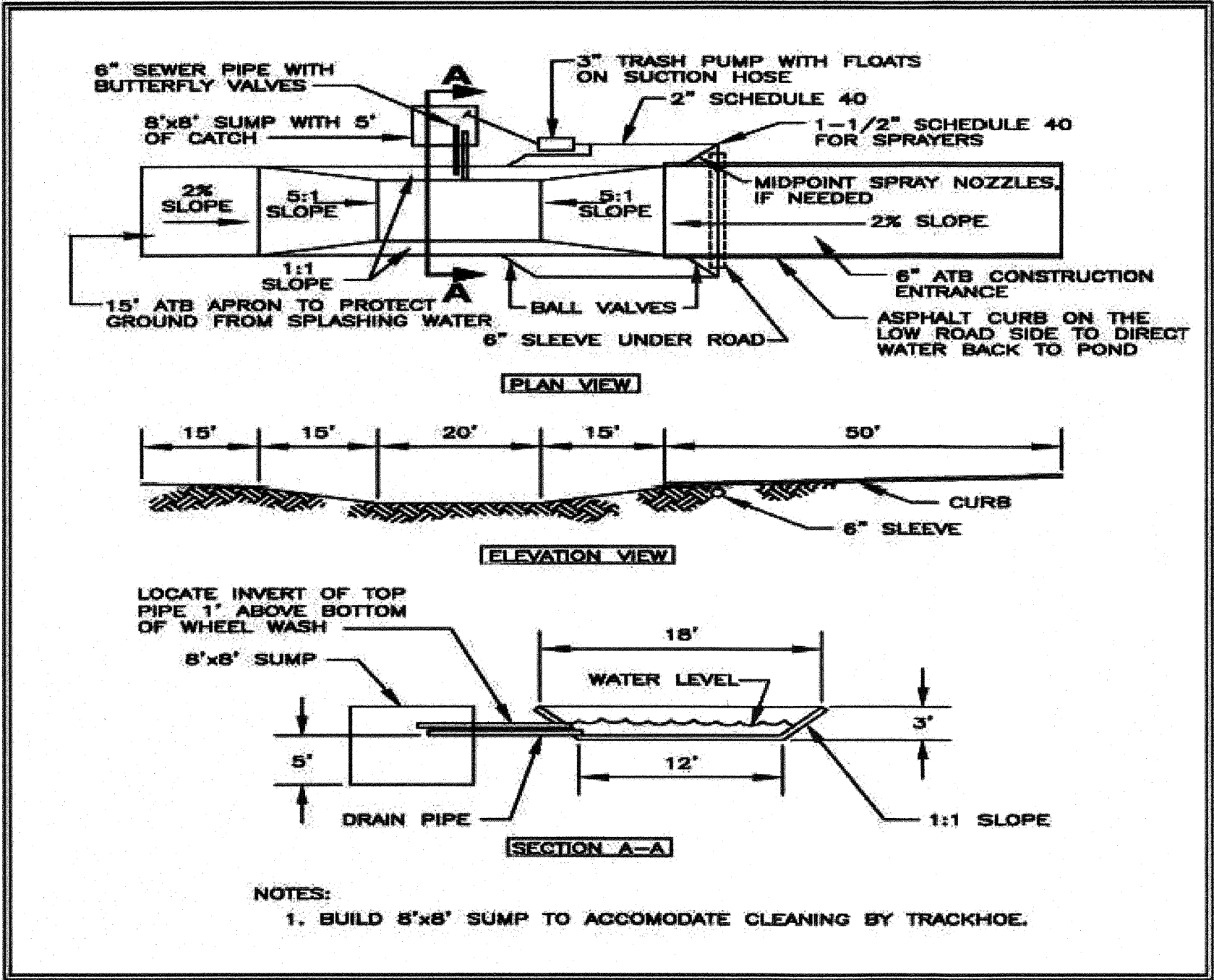
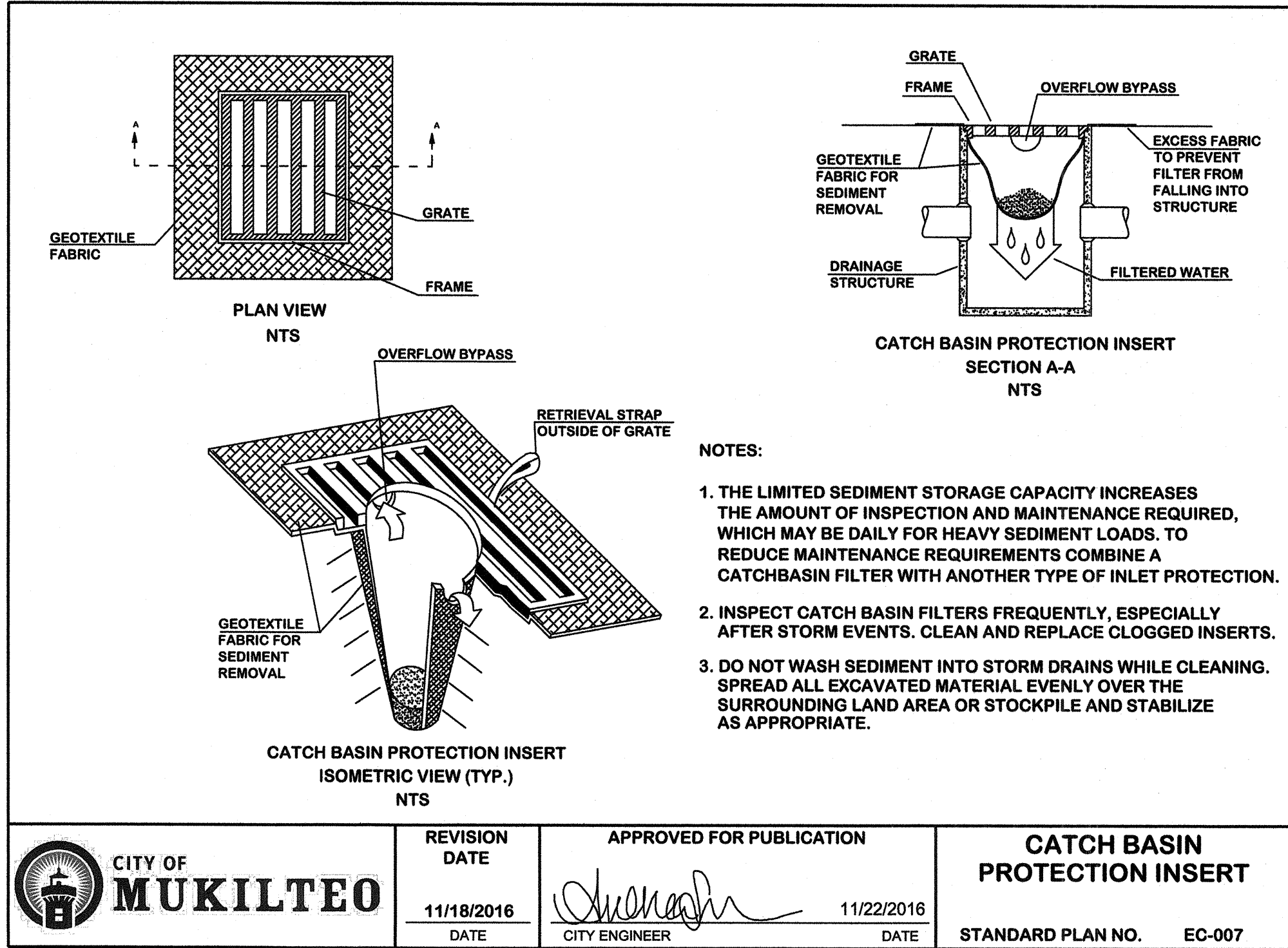
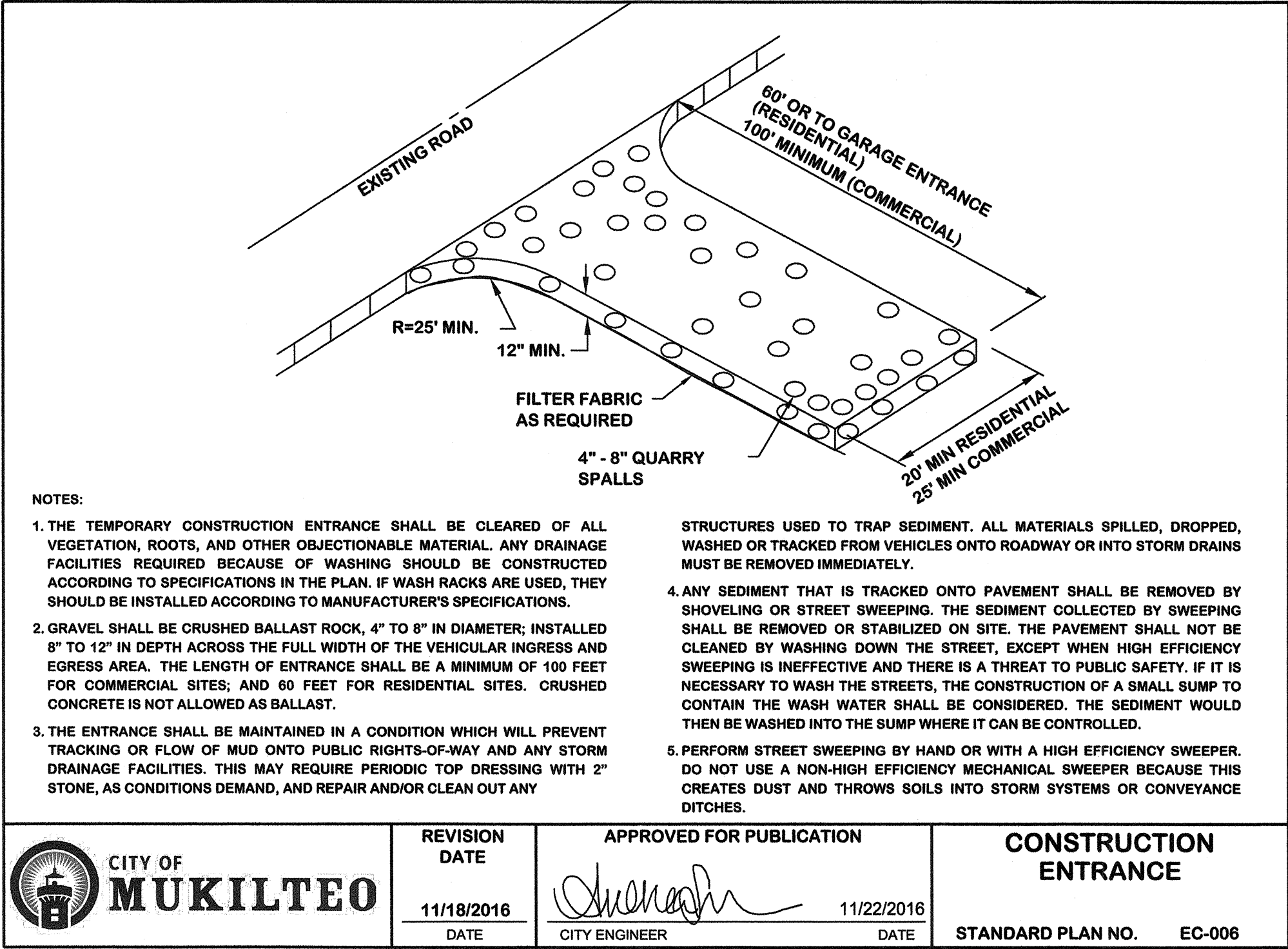
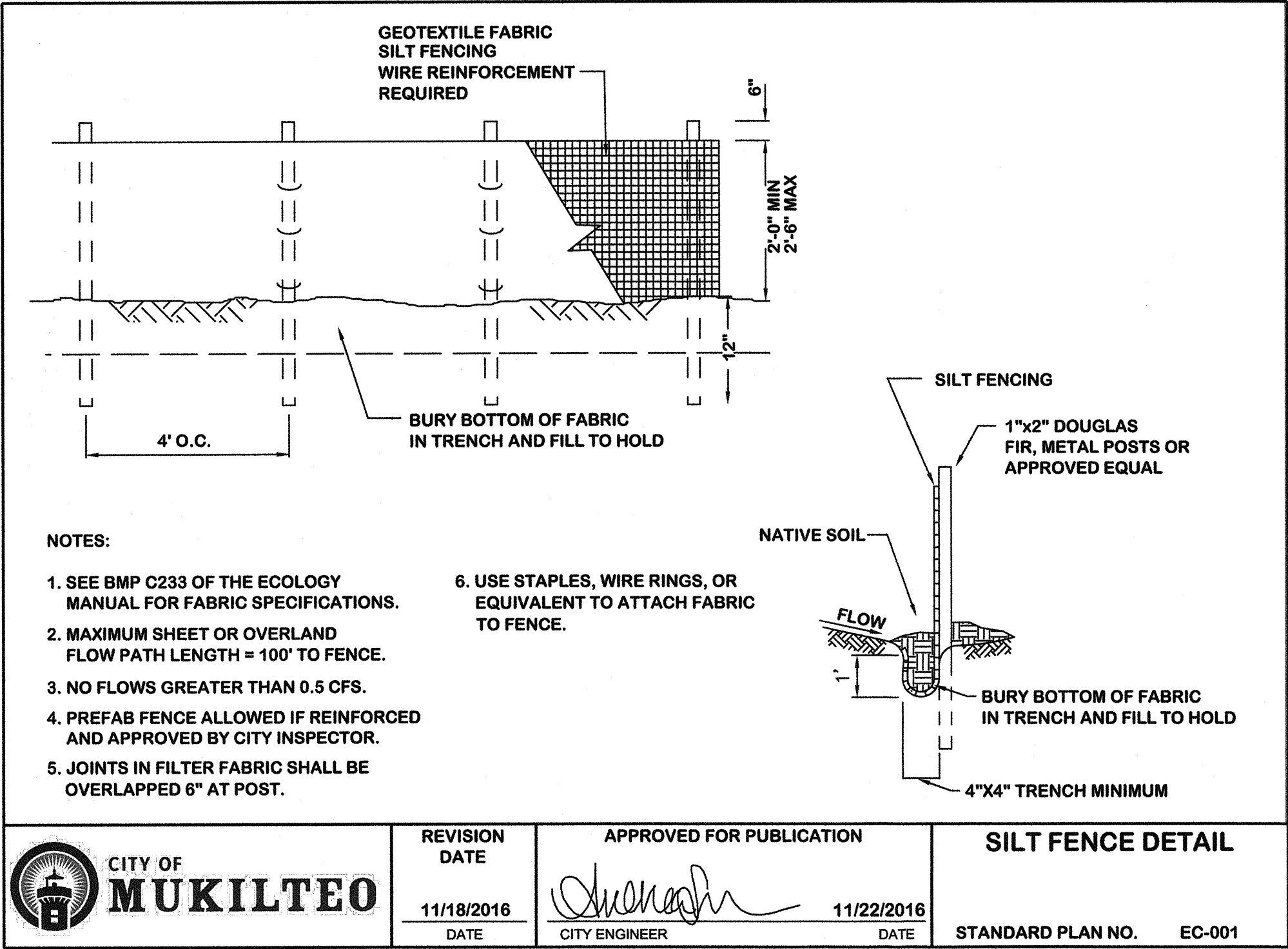
OWNER/APPLICANT:

ZHANG FAMILY LLC

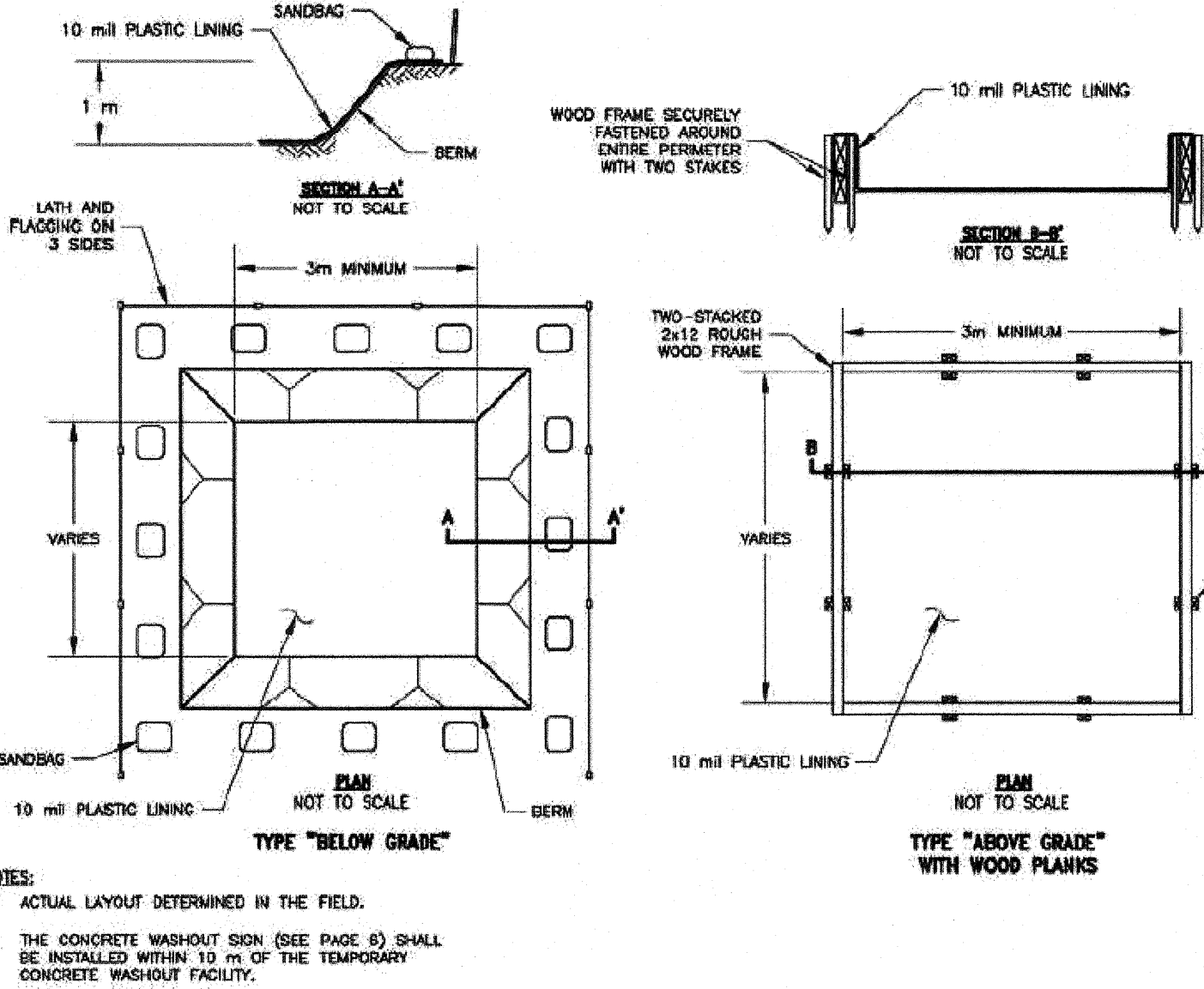
9800 HARBOUR PL, SUITE 100

MUKILTEO, WA 98275

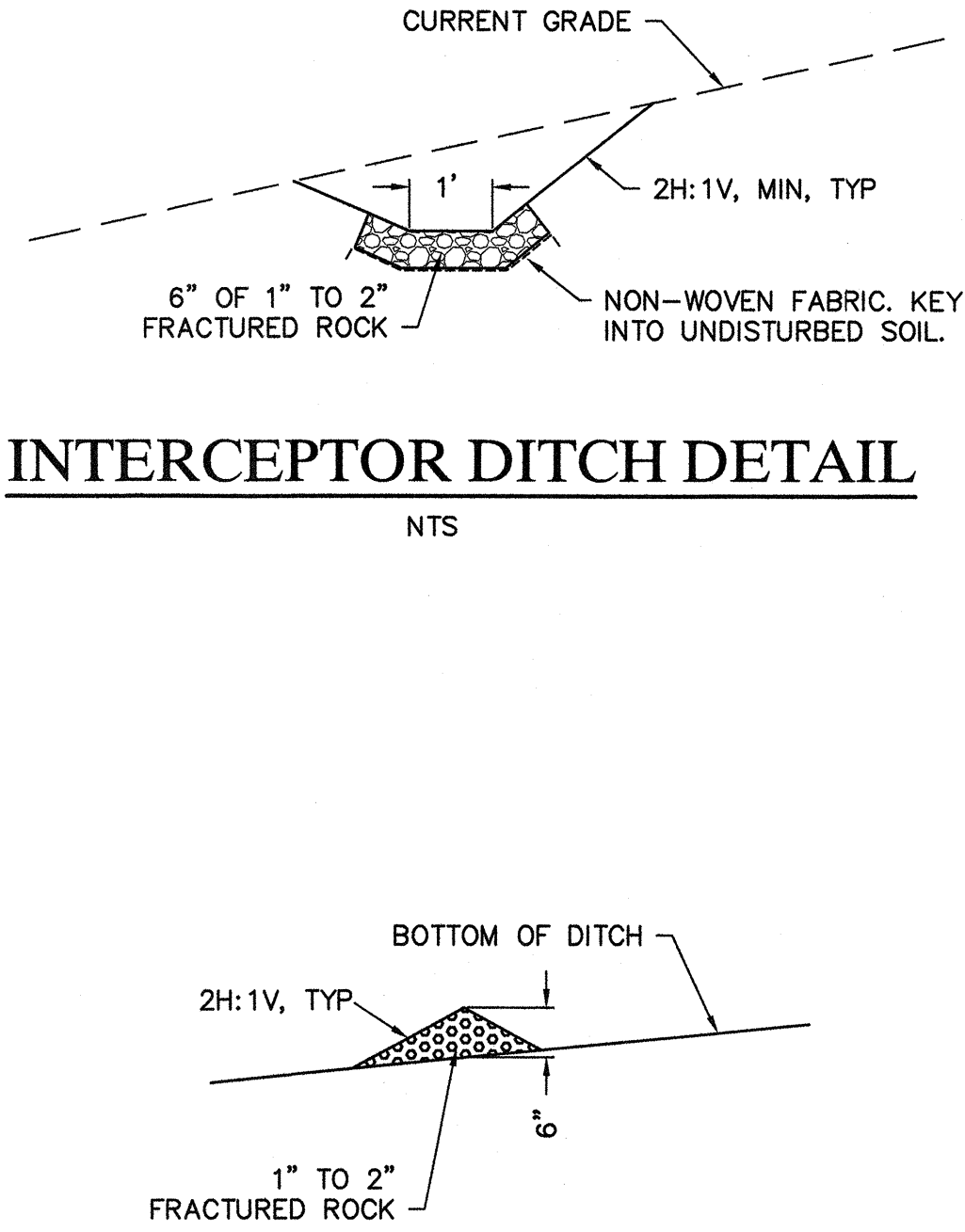
C7



WHEEL WASH STD DETAIL
NTS



CONC WASHOUT STD DETAIL
NTS



INTERCEPTOR DITCH DETAIL
NTS

CHECKDAM DETAIL
NTS

APPROVED FOR CONSTRUCTION
CITY OF MUKILTEO
[Signature]
CITY ENGINEER
6/28/18
DATE

811
Know what's below.
Call before you dig.

SDS
SITE DEVELOPMENT SERVICES
3011 RAVEN CREST
BELLINGHAM, WA 98226
(425) 481-9687
DAVE.SDS@Q.COM

NEW RESIDENCE 7908 53RD AVE W	
DATE: 4/17/18	DES: DCD
SCALE: AS NOTED	DWN: DCD
TESC DETAILS	
OWNER/APPLICANT: ZHANG FAMILY LLC 9800 HARBOUR PL, SUITE 100 MUKILTEO, WA 98275	

Appendix B – Construction Notes

These General Notes shall appear on all Civil plan sets, as they may apply to a project.

B.1 General Notes

- 1. All work and materials shall be in accordance with current City of Mukilteo Development Standards; the current edition of the Washington State Department of Transportation Standard Specifications for Road, Bridge, and Municipal Construction; and the adopted edition of the Washington State Department of Ecology Stormwater Management Manual for Western Washington.
- 2. All work within the plat and City right-of-way shall be subject to the inspection of the City.
- 3. Prior to any site construction including clearing/logging or grading, the site clearing limits shall be located and field identified by the project surveyor (or project engineer) as required by these plans. The project surveyor's name and phone number is _____.
- 4. The developer, contractor and project engineer is responsible for water quality as determined by the monitoring program established by the project engineer. The project engineer's name and phone number is David Dougherty 425-481-9687.
- 5. Prior to any site work, the contractor shall contact the City of Mukilteo Planning & Community Development at 425-263-8000 to schedule a preconstruction conference.
- 6. Engineered as-built drawings in accordance with the current adopted International Building Code shall be required prior to final site approval.
- 7. The contractor shall be responsible for obtaining all permits for utility, road, and right-of-way construction. The contractor for this project is _____.

Contact person: _____
Phone: _____
Mobile: _____
24-Hour Emergency Contact and Phone: _____

- 8. The Construction Stormwater Pollution Prevention (SWPP) facilities shall be constructed in accordance with the approved SWPPP plans prior to any grading or land clearing. These facilities must be satisfactorily maintained until construction and landscaping is completed and the potential for on-site erosion has passed. Sediment laden waters shall not enter the natural drainage system.
- 9. A Certified Erosion and Sediment Control Lead (CESCL) or SWPPP Supervisor shall be responsible for maintaining the Construction SWPP facilities, as outlined in the approved

- STORM DRAINAGE NOTES, CONT'D
- 5. The developer (or project engineer) is responsible for water quality as determined by the monitoring program established by the project engineer. The project engineer's name and phone number is _____.
 - 6. If the project will disturb more than one (1) acre of land, then a Construction NPDES Permit is required and a Certified Erosion and Sediment Control Lead (CESCL) shall be assigned to the site. The CESCL's name, phone number, and CESCL certificate number is _____.
 - 7. All site work must be performed in accordance with the current City adopted International Building Code.
 - 8. All earth work shall be performed in accordance with City Standards. A preconstruction soils investigation may be required to evaluate soils stability.
 - 9. If cut and fill slopes exceed a maximum of two feet horizontal to one foot vertical, a rock or concrete retaining wall may be required. All rock retaining walls greater than four (4) feet in height are to be designed and certified by a professional engineer experienced in soil mechanics.
 - 10. The surface of all slopes shall be compacted. This may be accomplished by over-building the slopes, then cutting back to final grades; or by compacting each lift as the slope is being constructed. All slopes shall be compacted by the end of each working day.
 - 11. All structural fills shall be compacted to a minimum of 95% maximum density in the upper 4 feet & 90% maximum density below 4 feet as determined by modified proctor.
 - 12. Noncompliance with the erosion control requirements, water quality requirements and clearing limits violations may result in revocation of project permits and plan approval and bond foreclosures.
 - 13. Upon completion of work, final reports must be submitted to the City in conformance with the current City adopted International Building Code.
 - 14. A Wet Weather Erosion Control Plan must be submitted to the City for review and approval on or before September 1, if the project is proposing to actively clear, grade, or otherwise disturb 1,000 square feet or more of soil during the period between October 1 and April 30. Other thresholds for a Wet Weather Erosion Control Plan include projects that:
 - a. Have area(s) that drain, by pipe, open ditch, sheet flow, or a combination of these to a tributary water, and the tributary water is one-quarter mile or less downstream; or
 - b. Have slopes steeper than 15 percent adjacent or on-site; or
 - c. Have high potential for sediment transport, as determined by the Construction Site Sediment Transport Potential Worksheet; or
 - d. Have a critical area or critical area buffer on-site, or within 50 feet of the site; or
 - e. Have high groundwater table or springs.

B.3 Temporary Seeding General Notes

- 1. Use seeding throughout the project on disturbed areas that have reached final grade or that will remain unworked for more than 30 days.
- 2. The optimum seeding windows are April 1 through June 30 and September 1 through October 1.
- 3. Between October 1 and March 30 seeding requires a cover of mulch with straw or an erosion control blanket until 75 percent grass cover is established.
- 4. Review all disturbed areas in late August to early September and complete all seeding by the end of September.
 - a. Mulch is required at all times for seeding. Mulch can be applied on top of the seed or simultaneously by hydroseeding (see Ecology BMP C121 Mulching for specifications).
 - b. Seed and mulch all disturbed areas not otherwise vegetated at final site stabilization.

B.4 Maintenance of Siltation Barriers

- 1. Siltation barriers shall be inspected immediately after each rainfall and at least daily during prolonged rainfall. Close attention shall be paid to the repair of damaged erosion control elements, especially end-runs and sediment build-up. Necessary repairs to barriers shall be accomplished the same day.
- 2. Sediment deposits should be removed after each rainfall. Sediment deposits must be removed when the sediment level reaches approximately one-half the siltation barrier height.
- 3. Any sediment deposits remaining in place after the check dam is no longer required shall be dressed to conform to the existing grade, prepared and seeded.

B.5 Sediment Trap General Notes

- 1. Sediment traps are only effective in removing sediment down to about the medium silt size fraction. Soils in Mukilteo often contain fine silt and may not be adequately treated with sediment ponds. Therefore, erosion control practices should be emphasized and prioritized.
- 2. The pond shall be checked after each rain event, or weekly, whichever is sooner, to insure that it the walls are structurally sound, the pond has not been damaged by erosion or construction equipment, and to determine maintenance needs.
- 3. Any damage to the pond embankments or slopes shall be repaired immediately.
- 4. The emergency spillway should be checked regularly to insure that the lining is well established and erosion resistant. The siltation basin should be checked for sediment cleanout after each rainfall which produces runoff.

- HYDROSEEDING GENERAL NOTES, CONT'D
- 5. When the sediment reaches the cleanout level (typically 1-foot in depth), it shall be removed and properly disposed of off-site.
 - 6. Secondary treatment may be necessary if the sediment pond cannot effectively remove the fine grain soils.
- B.6 Storm Drainage General Notes
- 1. All pipe shall be placed according Division 7 of the WSDOT Standard Specifications.
 - 2. Backfill shall be placed equally on both sides of the pipe or pipe-arch in 6" average depth loose lifts. Maximum lift depth shall not exceed 9". Each lift shall be thoroughly compacted. Compacted lifts must extend at least one pipe diameter on each side of the pipe or to the side of the trench. Backfill over the pipe shall be performed in accordance with Sections 7-08.3(3) the WSDOT Standard Specifications.
 - 3. All grates located in the gutter flow line (inlet and catch basin) shall be depressed 0.1 feet below pavement level.
 - 4. All catch basins are to be Type I unless otherwise approved by the City or designated representative. The use and installation of inlets is not allowed.
 - 5. The contractor shall be responsible for adjusting all manhole, inlet and catch basin frames and grates to grade just prior to curb installation and/or paving.
 - 6. All catch basins with a depth of 5 feet or greater to the flow line shall be Type II catch basins.
 - 7. Vaned grates are required on all storm structures. All catch basins and manholes shall have locking lids. Rolled grates are not approved for use.
 - 8. Polypropylene safety steps and ladder steps shall be provided in all manholes and shall be positioned correctly with the bolt areas on the rim.
 - 9. Catch basin frames and grates shall be Olympic Foundry Model SM60, SM52, or SM44, locking type or equivalent. Model SM52 shall be referred to as a "Through Curb Inlet" on the plans.
 - 10. Detention ponds with side slopes steeper than 3:1 or with a maximum water depth greater than 3 feet shall require a vinyl coated chain link perimeter fence. Side slope averaging shall not be allowed. All inlet and outfall pipes shall have a trash rack installed and a mortared riprap headwall.
 - 11. Prior to sidewalk construction; lot drainage systems, stub-outs and any behind sidewalk drains must be installed as required. Pipe shall be PVC 3034, or SDR-35. Stub-outs shall be marked with a 2" x 4" with 3 feet visible above grade and marked "storm". Locations of these installations shall be shown on the as-built construction plans submitted to the City.

- 12. Storm water retention/detention facilities, storm drainage pipe and catch basins shall be flushed and cleaned by the developer prior to:
 - a. City of Mukilteo final acceptance of the project and;
 - b. Upon commencement and completion of the 2 year warranty period for the storm drainage system. An invoice detailing the flushing and cleaning shall be provided to the City.
- 13. All pipes shall be installed with rubber gaskets as per manufacturer's recommendations.
- 14. Coverage Requirements for 12" diameter pipe:
 - Backfill over pipe less than 12" requires RCP Class IV.
 - Backfill over pipe less than 24" requires RCP minimum.
 - Backfill over pipe greater than 24" requires 16 gage CMP minimum.
- 15. Corrugated Polyethylene Pipe (CPP):
 - a. All pipe shall be smooth interior. CPP shall be double-walled. All pipe shall meet AASHTO and ASTM specifications.
 - b. Upon request by the City inspector, all pipe runs shall pass the low pressure air test requirements of Section 7-04.3(1) E & F of the WSDOT Standard Specifications for Road, Bridge, and Municipal Construction. Pipe runs shall be tested with pipe loaded and compacted to finish grade.
 - c. Upon request by the City inspector, pipe shall be subject to mandrel testing (mandrel size = 90% of nominal pipe diameter).
 - d. Pipe shall be stored on site in shipping bunks on a flat level surface. This requirement will be strictly enforced; failure to comply may result in rejection of the pipe and/or future restriction on use of material.
 - e. Minimum depth of cover shall be 2 feet.
 - f. Couplings shall be integral bell and spigot or double bell separate couplings. Split couplings will not be allowed.
 - g. Backfill shall comply with Section 7-08.3(3) of the WSDOT Standard Specifications for Road, Bridge, and Municipal Construction with the exception that the second paragraph of Section 7-08.3(3) is deleted and replaced with:

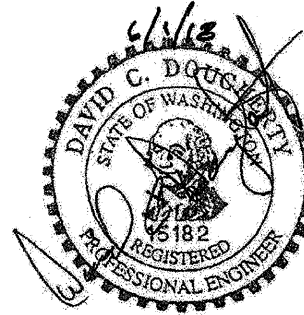
The material used for backfilling around and to a point 1 foot above the top of the pipe shall be clean earth or sand, free from clay. Any gravel or stones included in the backfill shall pass through a 1 inch sieve.

- 16. All non-perforated metal pipe shall have neoprene gaskets at the joints. O-ring gaskets may be used for type-F coupling band.
- 17. Culvert ends shall be beveled to match side slopes. Field cutting of culvert ends is permitted when approved by the City.
- 18. All field cut culvert pipe shall be treated as required in the Standard Specifications or General Special Provisions.

- SWPPP, or as modified from time to time. Contact information for the CESCL (or SWPPP Supervisor) for the project shall be given to the City.
- 10. Noncompliance with the requirements for erosion controls, water quality and clearing limits may result in revocation of project permits, plan approval, and bond foreclosures.
 - 11. Trench backfill of new utilities and storm drainage facilities shall be compacted to 95% maximum density (modified proctor) under roadways and 90% maximum density (modified proctor) off roadways. Compaction shall be performed in accordance with Sections 7-08.3(3) and 2-03.3(14)D of the WSDOT Standard Specifications.
 - 12. The owner and contractor shall be responsible for locating and protecting all existing utilities prior to beginning construction. Location of utilities shown on construction plans are based on best records available and are subject to variation. For assistance in utility location, call 811.
 - 13. Prior to construction the owner and/or contractor shall notify the project engineer and the Public Works Director when conflicts exist between the plans and field conditions. Conflicts shall be resolved (including plan and profile revisions) and resubmitted for approval prior to proceeding with construction.
 - 14. The contractor shall keep two sets of plans on site at all times for recording as-built information; one set shall be submitted to the project engineer, and one set shall be submitted to the City at completion of construction and prior to final acceptance of work.
 - 15. A grading permit issued pursuant to the current adopted International Building Code, and approval of the temporary erosion and sedimentation control plan shall be obtained from the Planning & Community Development Department prior to any on-site grading work not expressly exempt by the current adopted International Building Code.

B.2 Site Grading and Construction SWPPP Notes

- 1. Prior to any site work, including clearing, logging or grading, the site clearing limits shall be located and field identified by the project surveyor (or project engineer) as required by these plans. The project surveyor's name and phone number is Mark Guthrie, ASPL, 425-252-1884.
- 2. Soils in Mukilteo often contain finer particles which will pass through sediment traps untreated and have extremely long settling times. Therefore, the need to control erosion from the site is the first priority and should be emphasized.
- 3. The Construction Stormwater Pollution Prevention facilities shall be constructed in accordance with the approved SWPPP prior to any grading or extensive land clearing. An inspection by the City of these facilities shall be arranged for by the contractor prior to any grading. These facilities must be satisfactorily maintained until construction and landscaping is completed and the potential for on-site erosion has passed.
- 4. Stockpiles are to be located in safe areas and adequately protected by temporary seeding and mulching. Hydroseeding is preferred.



SDS
SITE DEVELOPMENT SERVICES
3011 RAVEN CREST
BELLINGHAM, WA 98226
(425) 481-9687
DAVE.SDS@Q.COM

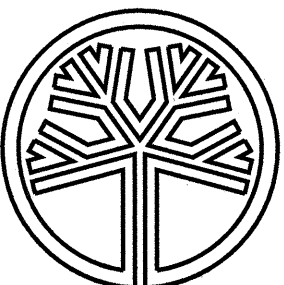
11/24/17 NOTES UPDATED FOR THE CURRENT DEVELOPMENT STANDARDS

NEW RESIDENCE
7908 53RD AVE W

DATE: 5/31/17 PERMIT SUBMITTAL DES: DCD
SCALE: 1"=20' DWN: DCD

NOTES

OWNER/APPLICANT:
ZHANG FAMILY LLC
9800 HARBOUR PL, SUITE 100
MUKILTEO, WA 98275

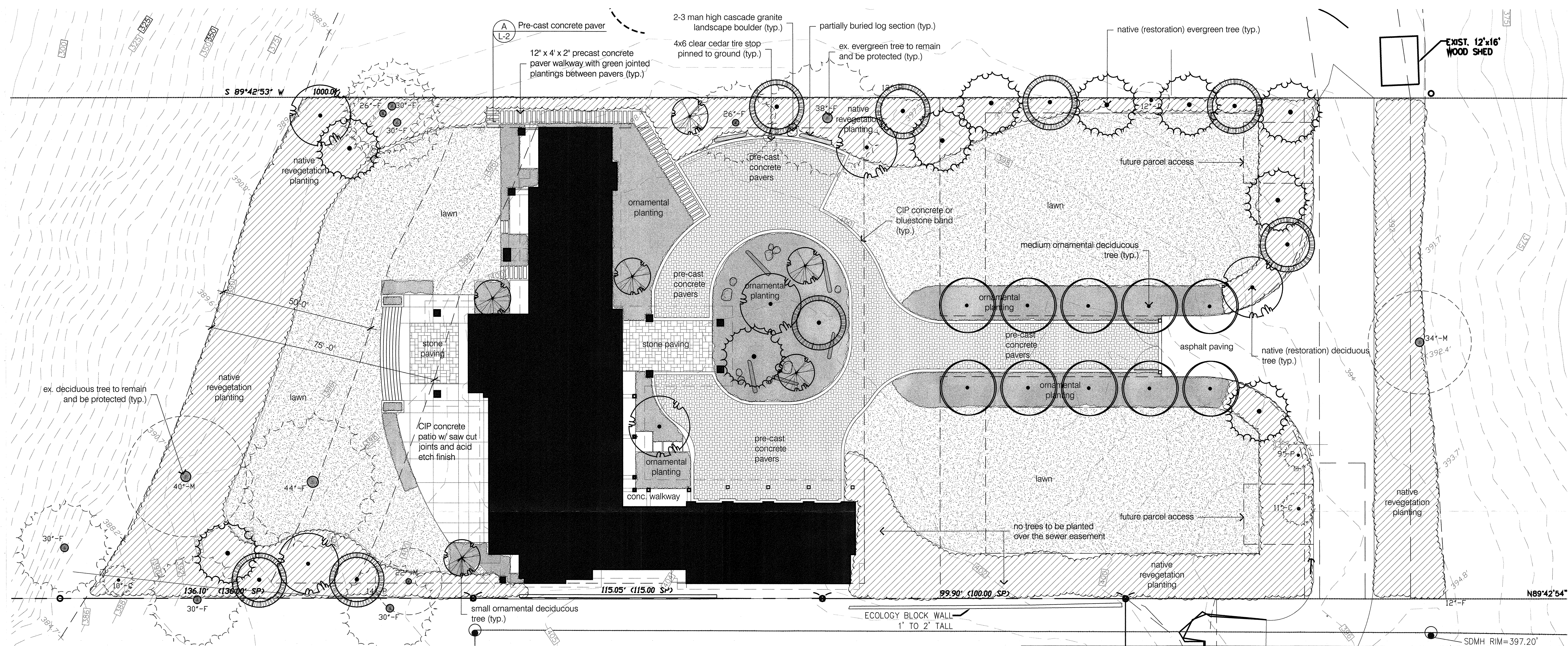


project number: 20171016

drawn: CSW

checked: Studio 342

date	issue / revision
5.16.17	Schematic Design
5.31.17	Permit Submittal
11.30.17	Permit Revisions
4.19.18	Permit Revisions
6.4.18	Permit Revisions
12.24.19	Permit Revisions



SCHEMATIC DESIGN PLANT SCHEDULE

Medium Ornamental Deciduous Tree: suggested species list

Quantity	Botanical Name	Common Name	Size	Notes
10 total	Acer ginnala 'Flame'	Flame Amur Maple	min. 12' ht.	Stake per detail
	Cornus kousa 'Chinensis'	Kousa Dogwood	min. 10' ht.	Stake per detail
	Stewartia pseudocamellia	Tall Stewartia	min. 12' ht.	Stake per detail
	Styrax japonicus	Japanese Snowbell	min. 10' ht.	Stake per detail

Small Ornamental Deciduous Tree: suggested species list

Quantity	Botanical Name	Common Name	Size	Notes
6 total	Acer palmatum 'Red Dragon'	Lace-leaf Japanese Maple	min. 6' ht.	Stake per detail
	Magnolia stellata	Star Magnolia	min. 6' ht.	Stake per detail
	Cotinus coggygia 'Golden Spirit'	Golden Spirit Smoke Tree	min. 6' ht.	Stake per detail

Native (Restoration) Evergreen Tree: suggested species list

Quantity	Botanical Name	Common Name	Size	Notes
18 total	Pinus contorta	Shore Pine	min. 10' ht.	Stake per detail
	Pseudotsuga menziesii	Douglas Fir	min. 12' ht.	Stake per detail
	Thuja plicata	Western Red Cedar	min. 10' ht.	Stake per detail
	Tsuga mertensiana	Mountain Hemlock	min. 12' ht.	Stake per detail

Native (Restoration) Deciduous Tree: suggested species list

Quantity	Botanical Name	Common Name	Size	Notes
6 total	Acer circinatum	Vine Maple	min. 6' ht.	Multi-stem
	Amelanchier alnifolia	Serviceberry	min. 6' ht.	Multi-stem
	Cornus nuttallii	Pacific Dogwood	min. 10' ht.	Multi-stem

Native (Restoration) Shrub/Groundcover: suggested species list

Quantity	Botanical Name	Common Name	Size	Notes
	Deschampsia cespitosa	Tufted Hair Grass	1 gal.	
	Fragaria chiloensis	Beach Strawberry	4" pots	
	Mahonia nervosa	Oregon Grape	1 gal.	
	Philadelphus lewisii	Mock Orange	5 gal.	
	Polystichum munitum	Western Sword Fern	1 gal.	
	Ribes sanguineum	Red-Flowering Currant	5 gal.	
	Vaccinium ovatum	Evergreen Huckleberry	5 gal.	

Ornamental Shrub/Groundcover: suggested species list

Quantity	Botanical Name	Common Name	Size	Notes
	Festuca glauca 'Elijah Blue'	Elijah Blue Fescue	1 gal.	
	Kalmia latifolia 'Tiddlywinks'	Dwarf Mountain Laurel	5 gal.	
	Lysimachia nummularia 'Aurea'	Golden Creeping Jenny	4" pots	
	Miscanthus sinensis 'Morning Light'	Eulalia Grass	5 gal.	
	Nandina domestica	Heavenly bamboo	2 gal.	
	Nasella tenuissima	Mexican Feather Grass	1 gal.	
	Pieris japonica 'Prelude'	Dwarf Pieris	2 gal.	
	Pittosporum tobira 'Wheelers Dwarf'	Dwarf Tobira	2 gal.	
	Rhododendron 'Nestucca'	Nestucca Rhododendron	2 gal.	
	Rubus pentalobus	Creeping Bramble	4" pots	

NOTES:

Planting Notes

- Plant quantities listed on this sheet are total quantities for each species. See full plant schedule for details.
- Landscape Architect (L.A.) or Owner shall approve all plant material upon delivery.
- Contractor to layout all plant material and get approval from L.A. prior to planting anything in the ground.
- Plants shall meet the current American Standard for Nursery Stock and shall be healthy, vigorous and well-formed, with well-developed, fibrous root systems, free from dead branches or roots. Plants shall be free from damage caused by temperature extremes, lack of or excess moisture, insects, disease, and mechanical injury. Plants in leaf shall be well foliated and of good color. Plants shall be habituated to outdoor environmental conditions (hardened-off)
- Root balls of potted and balled and burlapped (B&B) plants must be loosened and pruned as necessary to ensure there are no encircling roots prior to planting. At least the top half of burlap and any wire straps are to be removed from B&B plants prior to planting. The plant should be completely vertical. The top of the root flare, where the roots and the trunk begins, should be about one inch from the surrounding soil

Soils:

- Incorporate 8" of 3-Way topsoil from Cedar Grove (or equal) tilled to a depth of 12" to all planting areas & mounded to account for settling.
- Install 6" of 60/40 Lawn Mix from Cedar Grove (or approved equal) laid in compacted lifts in all lawn area.
- Install 2" top course of Cedar Grove Landscape Mulch (or approved equal) to all planting areas.

Cedar Grove: (877) 764-5748

- See soil management Plan (Sheet L-4) for specific soil placement instructions and designated areas

- All disturbed soil areas to meet requirements as directed on Soil Management Plan to ensure compliance with BMP T5.13. Testing results and lading bills are required to be submitted to the City.

Irrigation:

- Contractor to design/build irrigation system to provide head to head coverage for all planting and lawn areas. See L-3 for Specifications
- Irrigation water shall be applied with goals of avoiding runoff and overspray onto adjacent property, non-irrigated areas, and impervious surfaces
- Modified irrigation system to follow water conservation best management practices and include a rain sensor.

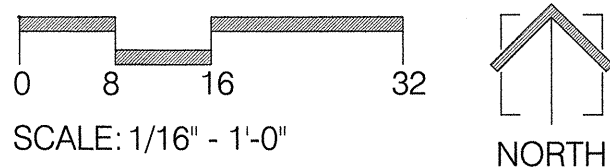
Tree Removal:

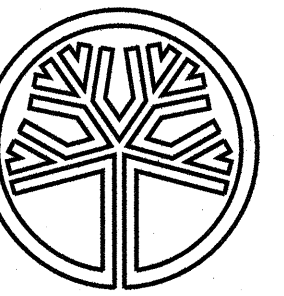
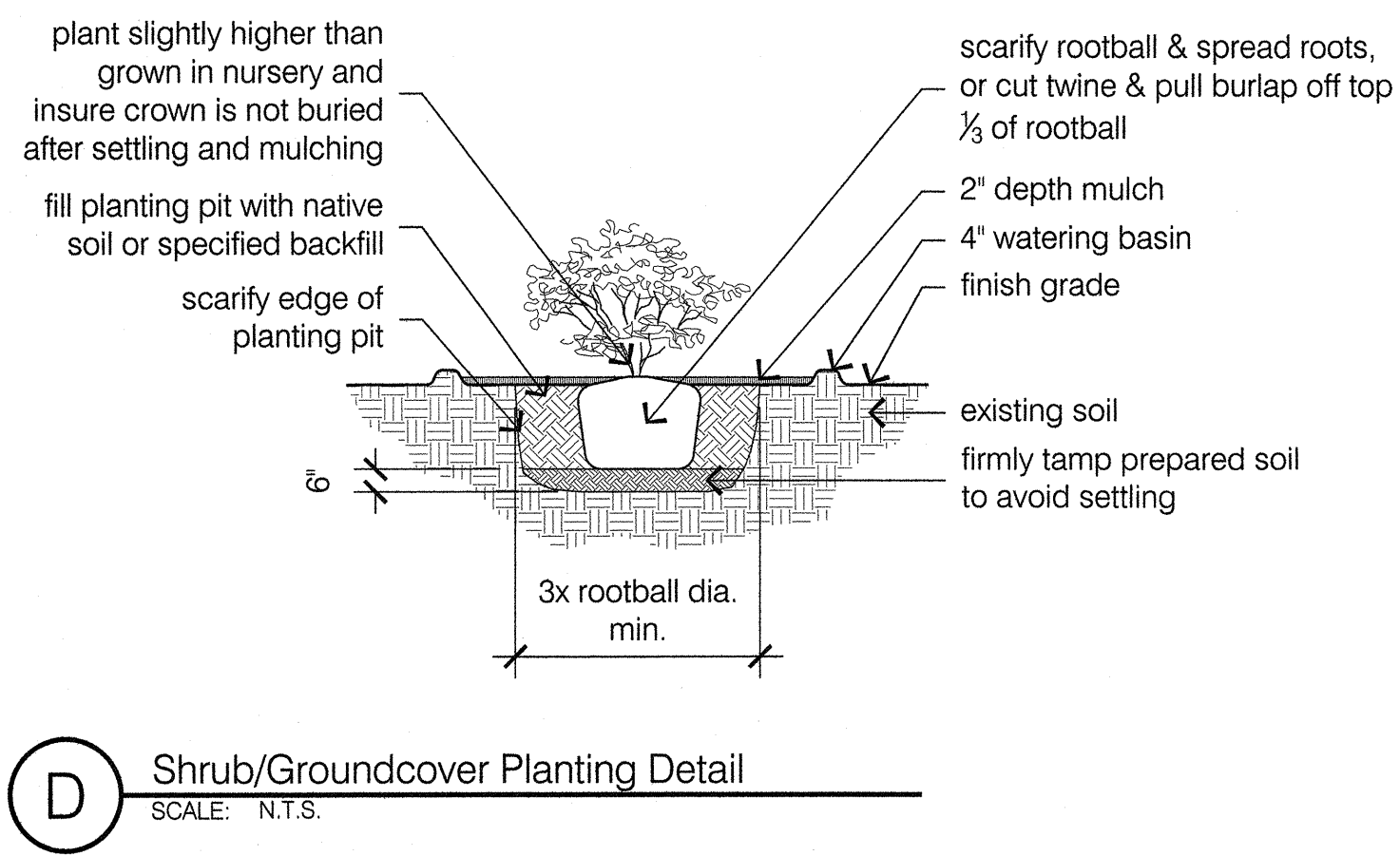
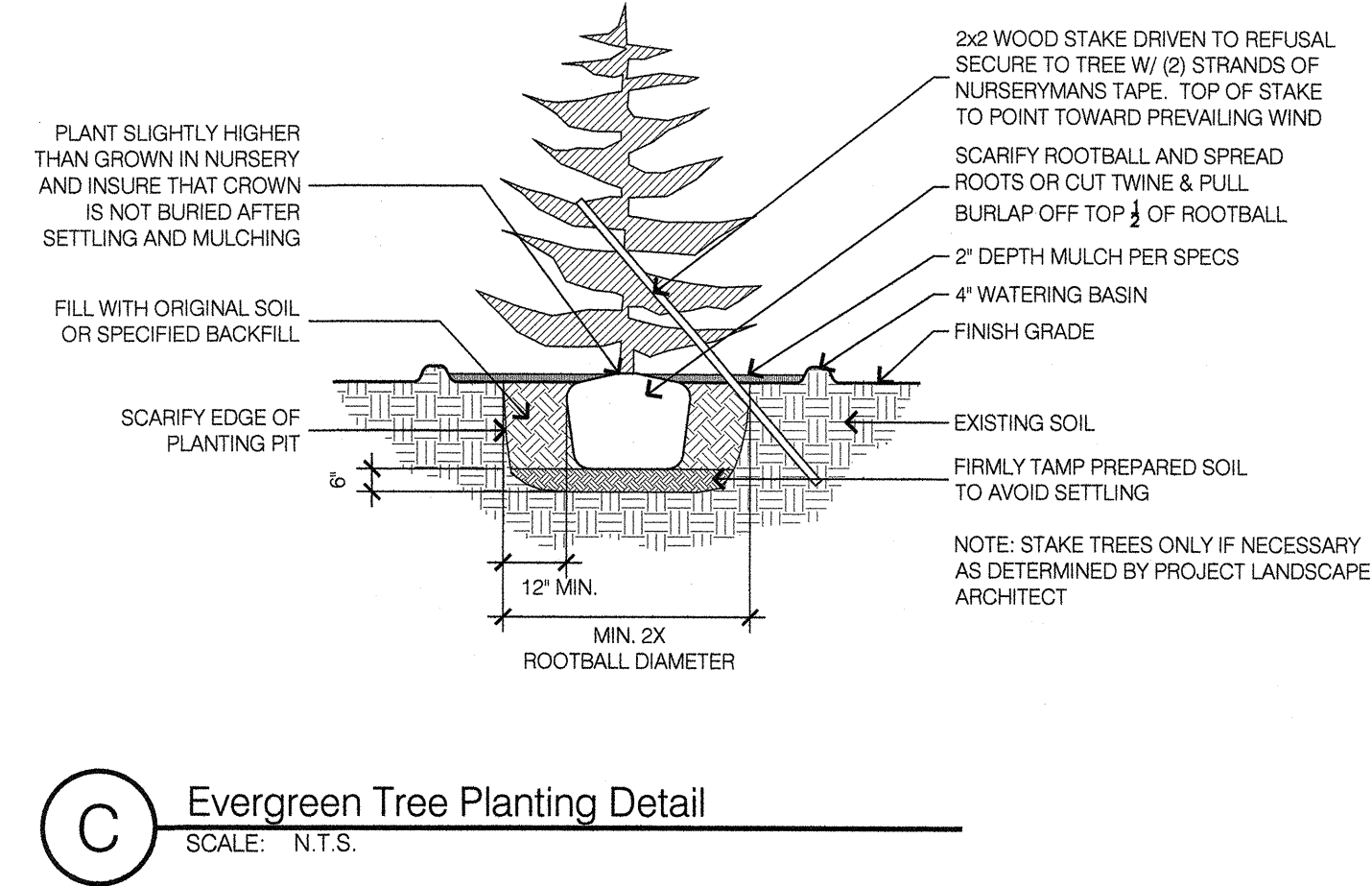
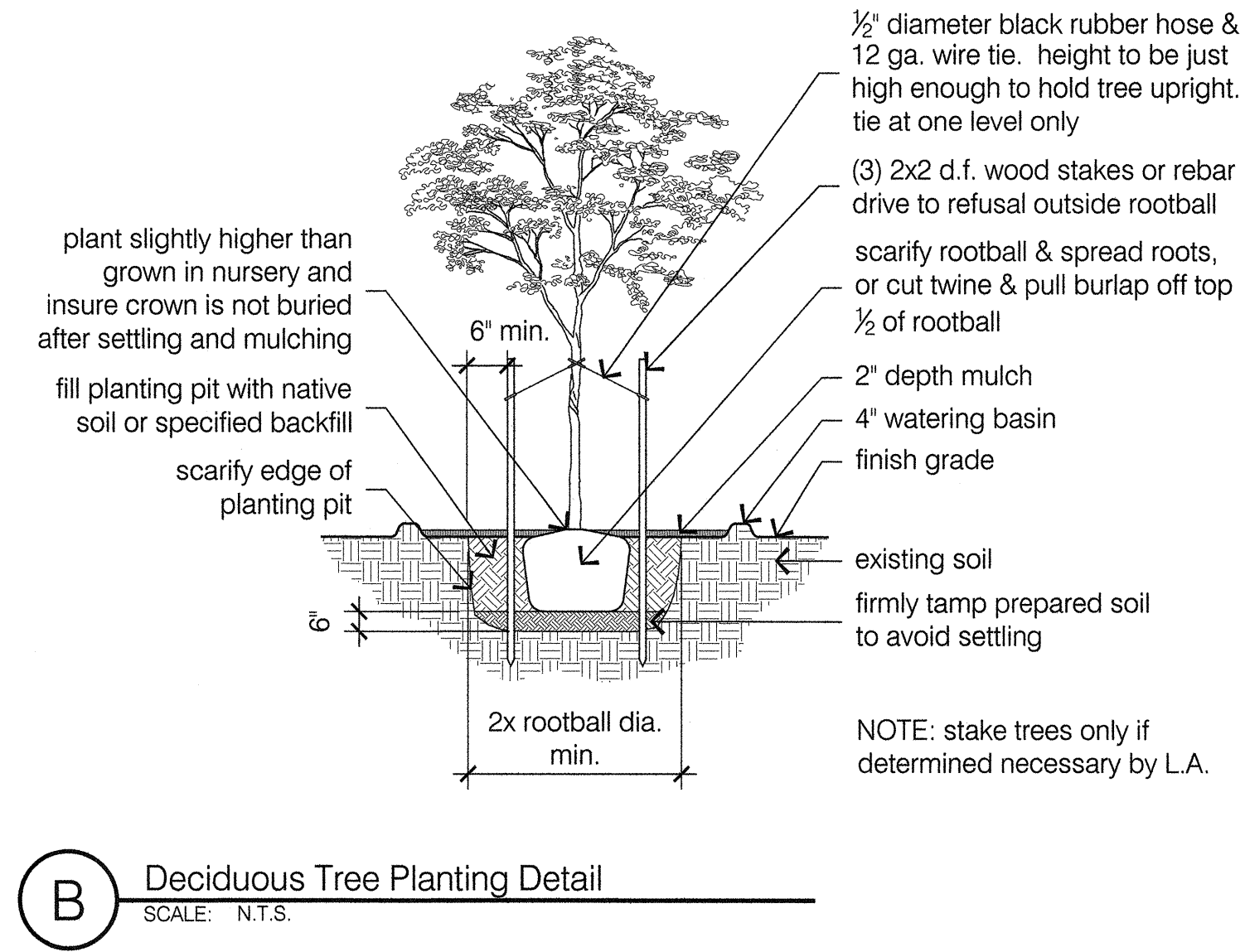
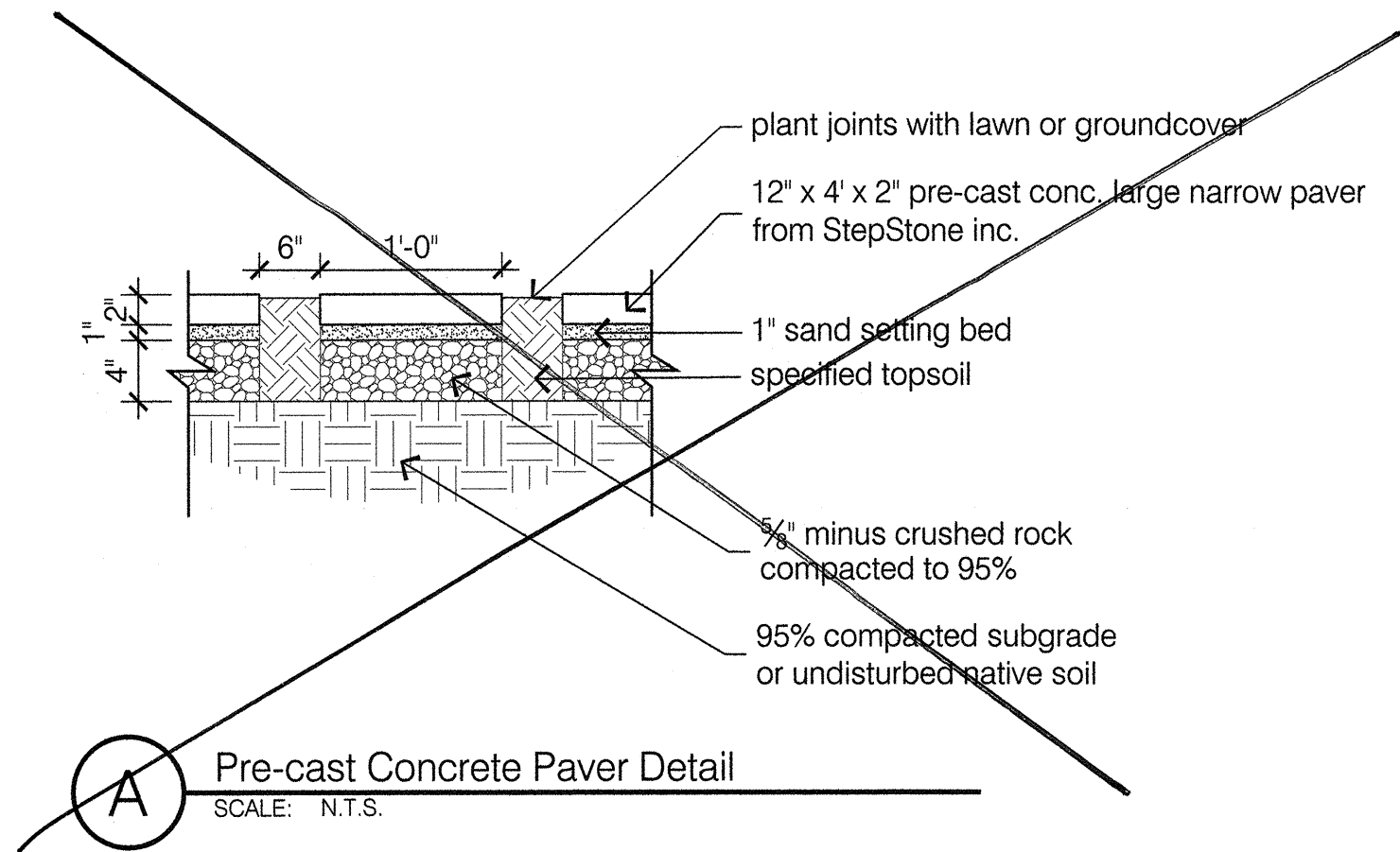
MINIMUM RETENTION REQUIREMENTS PER CITY OF MUKILTEO MUNICIPAL CODE SECTION 15.16.050:

SLOPES 25%-35%:	RETAIN MIN. 55% SIGNIFICANT TREES DISTURB NO MORE THAN 45% NATURAL VEGETATION
SLOPES 15%-24%:	RETAIN MIN. 40% SIGNIFICANT TREES CLEAR NO MORE THAN 60% NATURAL VEGETATION
SLOPES < 15%:	RETAIN MIN. 25% SIGNIFICANT TREES & GROUNDCOVER

PROPOSED SIGNICANT TREE RETENTION WITHIN DEVELOPABLE AREA (SLOPE < 15%):

TREES TO REMAIN: 13 (14.3%)
TREES TO BE REMOVED: 78
TOTAL EXISTING TREES: 91
PROPOSED NATIVE TREES: 24 x (.5 tree credit for new trees) = 12 trees
TOTAL PROPOSED AND EX. TREES TO REMAIN: 25 (27.5%)
NO PROPOSED DISTURBANCE OF TREES OR NATURAL VEGETATION ON STEEP SLOPE AREAS.



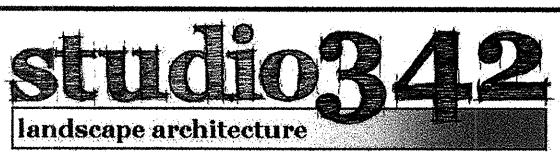


STATE OF
WASHINGTON
REGISTERED
LANDSCAPE ARCHITECT
Chad S. Wickers
CHAD S. WICKERS
CERTIFICATE NO. 931

project number: 20171016
drawn: CSW
checked: Studio 342

date	issue / revision
5.16.17	Schematic Design
5.31.17	Permit Submittal
11.30.17	Permit Revisions
4.19.18	Permit Revisions
6.4.18	Permit Revisions

Landscape Details



p . o . b o x 9 7 2
edmonds • washington • 98020
phone / fax • (206) 545-0342
www.studio342.com

1.00 General

1.01 Summary

A. Provide a fully automatic bidder designed irrigation system installed by a qualified, licensed Contractor.

1.02 Quality Assurance

A. Perform work in strict accordance with the applicable plumbing, electrical, and health codes.
B. Obtain and pay for all permits and approvals required by the local jurisdictional authorities for the full operation of the system.
C. The work is subject to Landscape Architect tests and inspections as specified. Furnish written notice to the Landscape Architect 72 hours minimum prior to the required test or inspection.
D. Include a master valve on the incoming mainline at the backflow preventer location. Advise Landscape Architect if mainline pressure is insufficient to permit the additional pressure loss of a master valve.

1.03 System Coverage

A. Provide full coverage* in all planted areas. Exercise professional judgement in selection, location, height, and angle of sprinkler heads. Select and locate heads to avoid erosion, spraying building, and excessively washing walks. Shrub and lawn zones, sprinkler heads with widely varied precipitation rates, and differing sun exposures are to be valved separately. (*Full coverage is defined as head to head coverage with all plants and lawns receiving adequate water).

1.04 Guarantee

A. Guarantee system against defects of installation and material for a period of one (1) year after acceptance of sprinkler system. During guarantee period check, clear, and adjust sprinkler heads and otherwise insure adequate operation of system at maximum three (3) month intervals during the year.

1.05 Submittals

A. Plans - Two (2) sets of irrigation plans showing pipe and head layout, spray pattern, and equipment list.
B. Catalog Cuts - Manufacturer's descriptions of all proposed materials.
C. Make submittals to Landscape Architect for review prior to construction. Approval of plans and materials by Landscape Architect does not change the Contractor's responsibility for providing full coverage in planting areas.

1.06 Substitutions

A. Substitutions to the equipment specified will be permitted only with the express written approval of the Landscape Architect and when the substituted item is equal or better in quality than the item originally specified. The final determination for equal rests with the Landscape Architect.

1.07 As-Built Drawings

A. Maintain a current record of all pipes and equipment placement and record any variations from the original design.
B. Dimension pipe and equipment in variance to plans to two permanent structures sufficient for location after burial.
C. Submit a neat and legible as-built drawing of complete irrigation system upon completion of irrigation system and prior to releases of final payment. Provide reduced scale copy of plan, plastic encased, for attachment inside controller door.

2.00 Materials

2.01 Meter

A. Per local code.

2.02 Galvanized Pipe and Accessories

A. Pipe - Standard weight steel pipe, electrical resistance weld, ASTM Schedule 40.
B. Fittings - Malleable galvanized fittings.
C. Exterior Coatings - Primer and Matte Black Alkyd Oil Enamel for above grade pipe and fittings. Fields 125' bituminous coating for pipe and fittings below grade.

2.03 Plastic Pipe and Fittings

A. Pipe - Mainline: Schedule 40 PVC pipe, manufactured from a Type I, Grade I Polyvinyl Chloride (PVC) compound with a Cell Classification of 12454 per ASTM D1784. The pipe shall be manufactured in strict compliance to ASTM D1785 and D2665 (where applicable). Lateral lines: PVC 1120 or 1220, Class 200 conforming to U.S. Product Standard PS 22-70 and ASTM 2241, marked with manufacturer's name, class of pipe, NSF seal, and date and shift of manufacturing run. Provide uniform, smooth and glossy pipe with no evidence of interior or exterior extrusion marks. Pipe end pre-belled or straight to receive solvent-weld couplings.

2.04 Sprinkler Heads and Nozzles

A. Rainbird, Toro, Weathermatic, or approved equal. Brass or plastic. Pop-up type spray heads in all shrub beds and small lawn areas. Small pop-up impact spray heads or gear driven rotary pop-ups in medium

sized lawn areas. Large impact or rotary pop-ups in large lawn areas where spray is not likely to drift into windows. Select nozzles to provide full coverage and to prevent erosion and overspray of buildings, windows, walks, etc.... Galvanized risers used only upon approval of Landscape Architect.

2.05 Risers

A. Plastic bodies - 6" & 12" high pop-up Rainbird 1800 Series, or approved equal.
B. Brass bodies - Only if requested by Owner.

2.06 Automatic Valves

A. 24 volt, normally closed, provide with flow adjustment/shut-off handle and manual bleed cock.
B. Brass, or plastic. Weathermatic 8200CR or 11000CR, or approved equal.

2.07 Master Valve

A. Brass only.

2.08 Valve Boxes

A. General - Black or green plastic with bolt down lock-top capability.
B. Automatic Valves/Pressure Reducing Valve - Carson 1320B-13B or approved equal. Lid marked valve.
C. Backflow Preventer - Carson 1730C-12B or approval equal.
D. Shut-off Valve - Carson 10" diameter or approved equal.
E. Quick Coupling Valve - Carson 6" diameter or approved equal.

2.09 Automatic Controllers

A. 120 volt service with 24 volt output and UL approved, lockable door. Size for minimum of two additional future zones. 14 day capability and option of any 30 minute start of a 24 hour day. Time spread per station 0-60 minutes. Include Master Valve terminal or a pump start terminal for Master Valve operation.

2.10 Wire

A. UL approved UF and UL marked insulation jackets +/- #14 UF direct burial, solid copper, from controller to valves. ASTM B-3. Red or black for hot side, white for common ground, any third color for auxiliary wires. Multi-strand wire is acceptable if distance from controller to furthest valve is less than 500 feet. 3M DBY below grade wire splices. Screw-type and taped splices above grade per code.

2.11 Quick Coupling Valve For Air Blowout

A. Rainbird or approved equal with 1" MPT key.

2.12 Shut-Off Valve

A. Champion Angle Valve, Mueller, or approved equal. Stop and Waste valve where allowed by code. Provide 30" long key for valve operation.

2.13 Backflow Preventer

A. Per State of Washington approved list and as approved by local code. Febco #850 double check valve assembly or approved equal. Include resilient seat gate valve on each end of unit and ½" brass, screwed end, 150# WOG drive valve on downstream side.

2.14 Pressure Reducing Valve

A. Watts #223, Wilkens #500, or approved equal. Contractor has the option of utilizing a pressure reducing valve or automatic valves with pressure reducing capability.

2.15 Check Valves

A. KBI King-Check or approved equal. SAMS (seal-a-matic) may be used with an auto-drain and a gravel sump (minimum 1 CF) at the lowest end of each zone.

3.00 Installation

3.01 Examination

A. Prior to starting work carefully inspect the preparatory work of other trades and verify that such work is acceptable for the installation of this work. Report all unacceptable conditions to the Landscape Architect. Do not begin work until unacceptable conditions have been resolved. Beginning work constitutes Contractor acceptance of conditions.

3.02 Meter

A. Verify need with local water purveyor. Determine location, size, and type of pipe in the service from the main.

3.03 Trenching

A. Make trenches for irrigation system. Finish trenches free from rock, debris, or sharp articles. Provide depth to achieve minimum 16" cover for shrub beds, 12" for lawn areas, and 16" cover for mainline. Removed unused trench spoils from site.

3.04 Pipe

A. Cut PVC pipe ends at 90 degrees to the pipe length and clean all cutting prior to cementing. Wipe pipe ends clean with rag lightly wetted with PVC thinner. Apply cement with light coat on inside of fitting and

heavier coat on outside of pipe. Insert pipe into fitting and give a quarter turn to seat cement. Wipe excess cement from outside of pipe.

3.05 Sleeving

A. Class 200 PVC, 4" minimum diameter. Schedule 40 under asphalt or crushed rock paving. Verify with Landscape Architect if sleeves are to be installed by others.

3.06 Spray Heads and Risers

A. Set shrub heads with flange flush or slightly below finish grade at a minimum distance of 4 inches from planter edge. Provide double swing joint or flexible swing pipe and spiral barbed fitting (connection at bottom of sprinkler body only) for connection to lateral.
B. Install lawn heads flush with finish to clear mowing equipment. Provide three (3) Marlex street ells and one (1) PVC Schedule 80 nipple, or flex pipe connection to lateral (connection at bottom of sprinkler body only).

3.07 Nozzles

A. Select nozzles to provide full coverage without causing erosion problems, staining of siding, or drift onto windows.

3.08 Electric Wire

A. Install wire in conduit where required by local code. Bury at sufficient depth to meet local code and in no case less than bottom side of parallel pipe. Bundle control wires and tape at 10' intervals. Tape bundles to adjacent pipe. Install wire in sleeves under all pavement. Splices shall occur at boxes only.

3.09 System Expansion

A. Provide a minimum of two (2) auxiliary wires for future valve locations. Run one unconnected spare control wire from the controller though each intermediate valve to terminate at the valve(s) at the ends of the main line. Loop at least 24" of wire at each of the intermediate valve boxes. Mark spare wires at the controllers and in boxes with permanent tag. Coil spare wire in plastic valve box.

3.10 Backfilling Trenches

A. Set pipe to ensure no puncture damage or future settlement. Lay mainline pipe with manufacturer's designations toward top of trench. Compact backfill to no less than 90% density at optimum moisture content. Backfill around sprinkler heads to restrict movement of heads by external force. Repair all trench settlement and finished surface damage due to settling during warranty period.

3.11 Automatic Valves

A. Install in specified valve box. Provide PVC nipple (minimum 4" long) on the inlet side and compression coupling or PVC union on the outlet side. Adjust flow with stem of valve to balance system. Mount valve boxes flush with finish grade unless otherwise indicated on drawings. Install immediately adjacent to walks or curbs (in shrub beds where possible). Provide 6" of pea gravel in bottom of valve box with 6" clear from gravel to underside of valve.

3.12 Master Valve

A. Size to match mainline size.

3.13 Backflow Prevention Unit

A. Install per local applicable code. Verify location with Landscape Architect. Otherwise Contractor is responsible for cost of relocation. Install galvanized ground joint unions on both inlet and outlet sides. Install Double Check Assembly in plastic box with minimum of 6" of gravel at bottom of box. Provide positive and verifiable drainage out of box. If required, install Reduced Pressure Backflow Preventer per code.

3.14 Pressure Reducing Valve

A. Install in plastic valve box with un-marked lid. Set so system does not fog with auto valves wide open.

3.15 Automatic Controller

A. Review exact location with Landscape Architect prior to installation. Connect to 120 volt service. Provide conduit/wire from controller location to valves. Label each station to clearly identify location of each valve.

3.16 Quick Couple Valve

A. Install in a 10" diameter valve box. Ensure valve can be operated from finish grade.

3.17 Shut Off Valve

A. Install in a 10" diameter valve box. If Stop and Waste Valve is allowed by code, provide 1 cubic foot gravel sump beneath valve.

3.18 Check Valves

A. Provide low head check valves on risers of lowest heads to prevent leakage.

3.19 Riser Painting

A. Paint all galvanized pipe and fittings with one coat minimum of specified material. Touch up after assembly.

3.20 System Flushing

A. Flush entire system prior to installation of sprinkler heads/nozzles. After capping all risers, remove cap nearest automatic valve, flush, and recap. Repeat this process until last head on circuit is flushed. If a pressure reducing valve is included in system, open wide for maximum pressure during flushing operation.

3.21 Pressure Test

A. Leave all system joints, connections, etc... exposed until after completion and acceptance of pressure test. Cap and open entire system to full main static pressure (pressure reducing valve wide open) for a period of two (2) hours. If static exceeds 80 psi, set PRV at 80 psifor testing laterals. Test mainlines at 100 psi. Visually check joints and connections for leaks. Repair all leaks, however minor. Contractor has the option of using AWWA pressure test (test with approved pressure pump at 100 psi with no more than 5 psi loss in 15 minutes). Deliver written record of test to Landscape Architect.

3.22 Performance Tests

A. Upon completion of system installation and after flushing and pressure tests are completed, operate system in presence of Landscape Architect. Correct all deficiencies until the system is approved.

3.23 Adjusting

A. Substitute or modify up to 5% of total nozzles to accomodate locations and density of plants and ensure full coverage.

3.24 System Familiarization

A. Upon completion of system installation, flushing, and pressure tests, and acceptance of system by Landscape Architect, operate the system in the presence of the Owner. Provide keys and/or other tools necessary to operate/drain/activate the system and spend adequate time with Owner to ensure operation/maintenance/winterization can continue after departure of Contractor. Submit written verification of compliance to Landscape Architect indicating date and persons involved. Contractor is liable for all damage or losses resulting from failure to comply with provisions of this paragraph.

3.25 System Protection

A. Deactivate and drain the system prior to the onset of freezing seasonand reactivate at the onset of spring season. Accomplish each at least once during the guarantee period. If installation is completed when system is not in use, winterize after testing. Certify by letter the dates of winterization/activation. Repair damage from failure to comply. Purge system with low pressure and low volume compressed air. Do not allow pipe or compressor to get hot to the touch.

3.26 Final Approval

A. Upon completion of all tests, final approval for system will be contingent upon Contractor providing signed and approved sprinkler/plumbing/health/electrical permits as may be applicable in the area, and as-built drawings of the complete system.

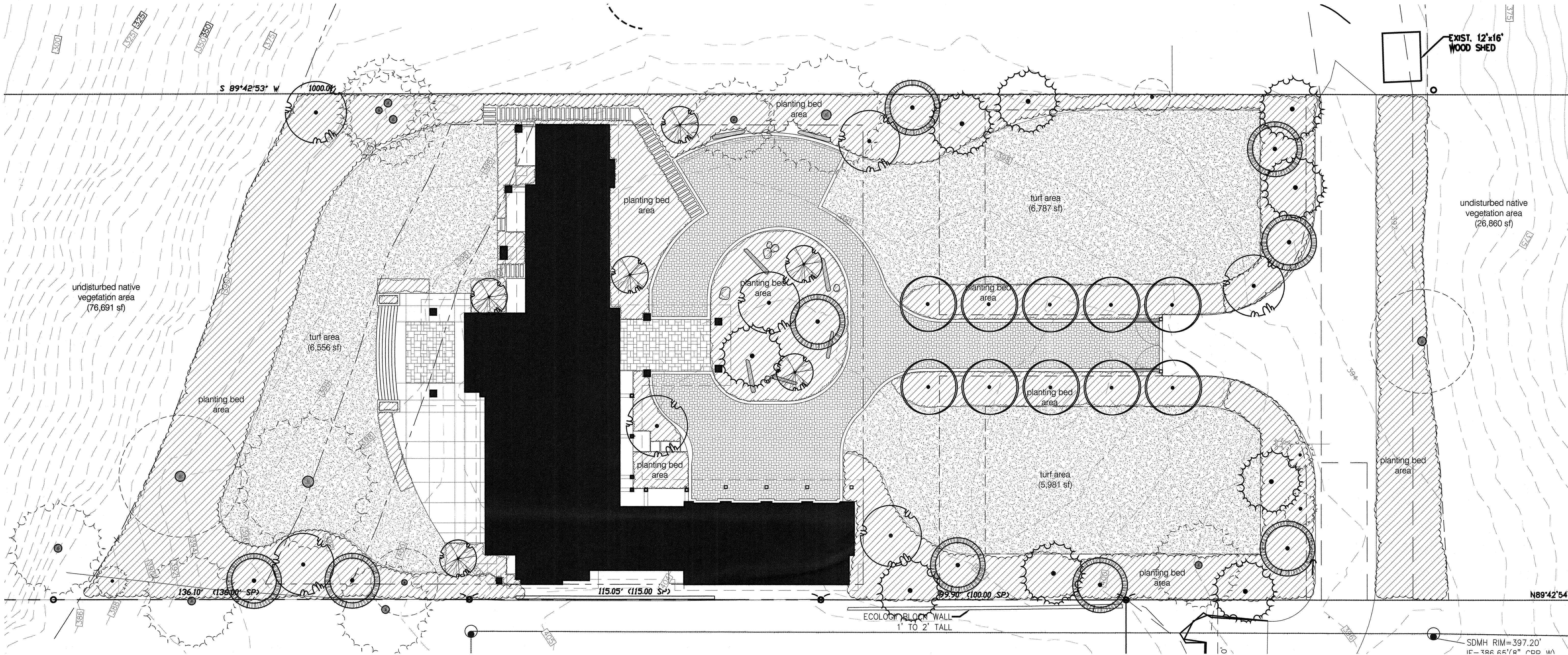
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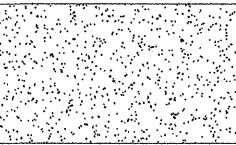
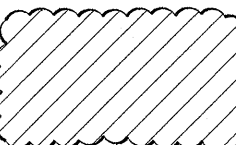
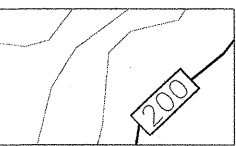
project number: 20171016
drawn: CSW
checked: Studio 342

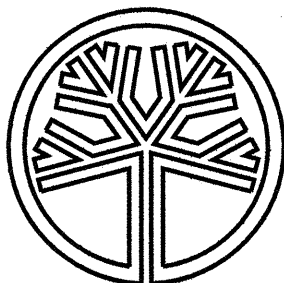
date	issue / revision
5.16.17	Schematic Designt
5.31.17	Permit Submittal
11.30.17	Permit Revisions
4.19.18	Permit Revisions
6.4.18	Permit Revisions
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Irrigation
Specifications



SOIL MANAGEMENT PLAN PLANTING TYPES

-  **Turf areas (Area #1): (19,324 total SF)**
All turf areas to have 6" of Cedar Grove 60/40 lawn mix added
1. Scarify subsoil to a depth of 12"
2. 3" of imported topsoil to be added and tilled into the top 8" of existing soil
3. 3" of imported top soil to then be placed on tilled soil
4. Soil to be watered or rolled to 85% compaction
5. Turf areas to be raked level and rocks over 1" in diameter removed
-  **Planting beds (Area #2): (23,092 total SF)**
All planting bed area to have 8" of Cedar Grove 3-way soil mix added
1. Scarify subsoil to a depth of 12"
2. 4" of imported topsoil to be added and tilled into the top 8" of existing soil
3. 4" of imported top soil to then be placed on tilled soil and raked smooth to remove rocks over 2" in diameter
Mulch all planting beds with 2" of Cedar Grove Organic Landscape Mulch
-  **Undisturbed native vegetation (Area #3): (103,551 total SF)**
No soil disturbance to these areas



STATE OF
WASHINGTON
REGISTERED
LANDSCAPE ARCHITECT
Chad S. Wichers
CHAD S. WICHERS
CERTIFICATE NO. 931

project number: 20171016
drawn: CSW
checked: Studio 342

date	issue / revision
5.16.17	Schematic Design
5.31.17	Permit Submittal
8.21.17	Permit Revision
11.30.17	Permit Revisions
4.19.18	Permit Revisions
6.4.18	Permit Revisions

Soil Management
Plan

L-4

