PACIFIC FERN BUSINESS PARK - LOT 5

LOT 5 — SITE AND UTILITY IMPROVEMENTS

GENERAL NOTES:

 ALL WORK AND MATERIALS SHALL CONFORM TO THESE PLANS AND TO THE REQUIREMENTS OF THE CURRENT EDITION OF THE "STATE OF WASHINGTON, DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION" (WSDOT SPECS.), THE CITY OF FERNDALE DEVELOPMENT STANDARDS (COFDS) AND THE 2005 VERSION OF THE DEPARTMENT OF ECOLOGY STORM WATER MANAGEMENT MANUAL FOR WESTERN WASHINGTON (DOE MANUAL). IN CASE OF A CONFLICT BETWEEN PLANS, REGULATORY STANDARDS OR SPECIFICATIONS, THE MORE STRINGENT REQUIREMENT WILL PREVAIL.

- 2. PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL VERIFY THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED. NO CONSTRUCTION OR FABRICATION SHALL BEGIN UNTIL THE CONTRACTOR HAS RECEIVED AND THOROUGHLY REVIEWED ALL PLANS AND OTHER CONSTRUCTION DOCUMENTS APPROVED BY ALL OF THE PERMITTING AUTHORITIES. THROUGHOUT THE PERIOD OF CONSTRUCTION, CONTRACTOR SHALL COMPLY WITH THE TERMS
- 3. THE CONTRACTOR MUST HAVE A FULL SET OF CITY CONTRACT DOCUMENTS ON THE SITE WHENEVER CONSTRUCTION
- 4. CONSTRUCTION NOISE SHALL BE LIMITED TO BETWEEN 7 a.m. TO 8 p.m., MONDAY THROUGH FRIDAY.

5. THE CONTRACTOR SHALL CONTACT THE UTILITIES UNDERGROUND LOCATION CENTER AT LEAST 72 HOURS PRIOR TO STARTING CONSTRUCTION. PHONE: 1-800-424-5555. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT ALL OF THE VARIOUS UTILITY COMPANIES TO ARRANGE FOR FIELD LOCATIONS OF ALL EXISTING UTILITY FACILITIES PRIOR TO STARTING CONSTRUCTION. NO EXTRA COMPENSATION WILL BE PAID TO THE CONTRACTOR FOR COSTS INCURRED MAINTAINING THE INTEGRITY OF ALL EXISTING UTILITIES AND TO NOTIFY THE ENGINEER PROMPTLY OF ANY CONFLICT BETWEEN THE APPROVED PLANS AND THE LOCATION OF ANY EXISTING UTILITIES.

- 6. THE CONTRACTOR SHALL PROTECT ALL PRIVATE AND PUBLIC UTILITIES FROM DAMAGE RESULTING FROM THE WORK. CONTRACTOR SHALL RESTORE ALL PRIVATE AND PUBLIC PROPERTY DISRUPTED BY THE PROJECT IMMEDIATELY AFTER
- 7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING EROSION CONTROL MEASURES THROUGHOUT TH DURATION OF THE PROJECT. EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO ANY CLEARING OR GRADING. THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) SHALL BE ONSITE AT ALL TIMES DURING
- 8. SITE CLEARING SHALL INCLUDE THE LOCATION AND REMOVAL OF ALL ABOVE GROUND AND BURIED DEBRIS AND
- 9. THE CONTRACTOR SHALL OBTAIN REVOCABLE ENCROACHMENT PERMITS FROM THE CITY OF FERNDALE AND/OR WHATCOM COUNTY PRIOR TO COMMENCING WORK WITHIN THE PUBLIC RIGHTS—OF—WAY.
- 10. THE CONTRACTOR SHALL ATTEND A PRE-CONSTRUCTION MEETING WITH REPRESENTATIVES OF THE CITY OF FERNDALE PUBLIC WORKS DEPARTMENT AND THE ENGINEER OF RECORD A MINIMUM OF THREE (3) WORKING DAYS PRIOR TO THE START OF CONSTRUCTION. THE CITY WILL SCHEDULE THE MEETING.
- 11. ALL WORK AND MATERIALS SHALL BE SUBJECT TO APPROVAL BY THE CITY OF FERNDALE PUBLIC WORKS DEPARTMENT, REPRESENTATIVES FROM THE CITY OF FERNDALE PUBLIC WORKS DEPARTMENT MUST INSPECT ALL WORK IDENTIFIED ON THE PLANS, BOTH PUBLIC AND PRIVATE. THE CONTRACTOR SHALL CALL AT LEAST 24 HOURS IN ADVANCE TO SCHEDULE INSPECTIONS AS FOLLOW:
- B. CONSTRUCTION OF STORMWATER MANAGEMENT FACILITIES.

A. PLACEMENT OF TEMPORARY EROSION CONTROL MEASURES.

- C. PLACEMENT OF WATER MAIN AND BACKFILLING OF WATER MAIN TRENCH WITHIN ROAD RIGHTS-OF-WAY OR IN WATERLINE EASEMENT TO BE DEDICATED TO THE CITY OF FERNDALE. D. PLACMENT AND BACKFILLING OF UNDERGROUND UTILITIES, STORM SEWER AND SANITARY SEWER WITHIN ROAD RIGHTS-OF-WAY, IN EASEMENTS TO BE DEDICATED TO THE CITY OF FERNDALE. OR OTHER PUBLICLY SHARED
- E. GRADING OF PUBLIC OR PRIVATE ROADWAY AT:
- 1. COMPLETION OF EXCAVATION TO SUBGRADE. 2. COMPLETION OF BALLAST COURSE PLACEMENT
- 3. COMPLETION OF CRUSHED SURFACING COURSE PLACEMENT. F. POURING OF CURB AND GUTTER AND SIDEWALK IN PUBLIC OR PRIVATE ROADWAY.
- G. ASPHALT PAVING IN PROGRESS IN PUBLIC OR PRIVATE ROADWAY
- H. OVERALL INSPECTION FOR FINISHED SHOULDERS, DITCHES, PERMANENT SEEDING AND MONUMENT PLACEMENT. I. END OF MAINTENANCE PERIOD.
- 12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE SAFEGUARDS, SAFETY DEVICES. PROTECTIVE EQUIPMENT, FLAGGERS, AND ANY OTHER NEEDED ACTIONS TO PROTECT THE LIFE, HEALTH AND SAFETY OF THE PUBLIC, AND TO PROTECT PROPERTY IN CONNECTION WITH THE PERFORMANCE OF WORK COVERED BY THE CONTRACTOR. ANY WORK WITHIN THE TRAVELED RIGHT-OF-WAY THAT MAY INTERRUPT NORMAL TRAFFIC FLOW SHALL REQUIRE AT LEAST ONE FLAGGER FOR EACH LANE OF TRAFFIC AFFECTED. A TRAFFIC CONTROL PLAN SHALL BE SUBMITTED TO THE CITY FOR APPROVAL PRIOR TO PERFORMING THE WORK. ALL SECTIONS OF THE WSDOT SPECS., 1-07.23- TRAFFIC
- 13. THE CONTRACTOR SHALL INFORM THE ENGINEER AND OBTAIN APPROVAL FROM THE CITY OF FERNDALE PUBLIC WORKS DIRECTOR OF ANY PROPOSED DEVIATION FROM THE APPROVED PLANS PRIOR TO CONSTRUCTION OF THE REVISED IMPROVEMENTS. THE CONTRACTOR SHALL KEEP RECORDS OF ALL DEVIATIONS AND SHALL FORWARD THEM TO THE ENGINEER AND TO THE CITY OF FERNDALE PUBLIC WORKS DEPARTMENT.
- 14. AS-BUILT DATA SHALL BE PROVIDED TO THE CITY OF FERNDALE UPON COMPLETION OF CONSTRUCTION AND PROVIDED IN CITY OF FERNDALE DATUM - VERTICAL (NGVD 29) AND HORIZONTAL (NAD 83/91). CONTACT THE CITY FOR MORE INFORMATION ON SUBMITTAL REQUIREMENTS.
- 15. ALL DIMENSIONS AND GRADES SHOWN ON THE PLANS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY THE CONSTRUCTION MANAGER IF ANY DISCREPANCIES EXIST PRIOR TO PROCEEDING WITH CONSTRUCTION FOR NECESSARY PLAN OR GRADE CHANGES. NO EXTRA COMPENSATION SHALL BE PAID TO THE CONTRACTOR FOR WORK HAVING TO BE REDONE DUE TO DIMENSIONS OR GRADES SHOWN INCORRECTLY ON THESE PLANS IF SUCH NOTIFICATION HAS NOT BEEN GIVEN.
- 16. ALL DISTURBED AREAS SHALL BE COVERED WITH MULCH OR WOOD CHIPS WHILE NOT UNDER CONSTRUCTION.
- 17. AN APPROVED COPY OF THESE PLANS MUST BE ON-SITE WHENEVER CONSTRUCTION IS IN PROGRESS.

- A. SEWER PIPE SHALL BE IN ACCORDANCE WITH WSDOT 9-05.12. BEDDING AND BACKFILL FOR SEWER PIPE SHALL BE IN ACCORDANCE WITH CITY OF FERNDALE SS-15 AND SS-1
- B. CONNECTIONS TO EXISTING SEWER SHALL BE PERFORMED IN THE PRESENCE OF A REPRESENTATIVE OF THE CITY OF FERNDALE.
- C. SANITARY SEWER SERVICES SHALL BE PVC PIPE CONFORMING TO ASTM D3034 SDR 35 AND IN IN ACCORDANCE WITH CITY OF FERNDALE STANDARD PLAN SS-6. BEDDING AND BACK FILL SHALL BE AS SHOWN IN THE STANDARD DETAILS. ALL SIDE SEWERS SHALL BE INSTALLED AT A MINIMUM 2.0% SLOPE.

A. TYPE 1 CATCH BASINS SHALL BE PER WS-DOT STANDARD PLAN B-1. TYPE 2 CATCH BASINS SHALL BE PER WS-DOT STANDARD PLAN B-1E. CONCRETE INLETS SHALL BE PER WS-DOT STANDARD PLAN B-26. WHERE LOCATED IN CURB GUTTER LINE CATCH BASIN SHALL BE THRU-CURB INLET FRAME AND GRATE IN ACCORDANCE WITH CITY OF FERNDALE STD. DRAWING R-8. VANED GRATES SHALL BE USED IN ACCORDANCE WITH WSDOT STD PLAN B-2b.

 B. STORM DRAINAGE PIPE SHALL CONFORM TO WSDOT SECTION 7-01, AND CITY OF FERNDALE STANDARDS, SECTION 619.

UNDERGROUND UTILITIES CONSTRUCTION

1. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH THE ENGINEER OF RECORD TO ASSURE ACCURATE AND TIMELY COLLECTION OF ALL REQUIRED AS—BUILT DATA. THIS DATA MUST ACCURATELY REFLECT THE LOCATIONS OF ALL UNDERGROUND UTILITIES, BOTTOM OF PIPE ELEVATIONS, INVERT ELEVATIONS, MANHOLE LOCATIONS, WATER SERVICE TAPS. BLOW-OFF LOCATIONS AND INVERTS OF SERVICE CONNECTIONS (BOTH AT PIPE AND AT PROPERTY LINE), VERTICAL AND HORIZONTAL BENDS, SERVICE BOXES AND METERS, VALVES AND HYDRANTS. CALL THE ENGINEER OF

- a) NO MORE THAN 500 FEET OF TRENCH SHALL BE OPENED AT ONE TIME. b) WHERE CONSISTENT WITH SAFETY AND SPACE CONSIDERATIONS, EXCAVATED MATERIAL SHALL BE PLACED ON THE
- c) TRENCH DEWATERING DEVICES SHALL DISCHARGE INTO SEDIMENT TRAPS OR SEDIMENT PONDS. i) where practical, install gravity pipe utilities prior to installation of other utilities.
- 3. UTILITY CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CITY OF FERNDALE
- 4. TESTING OF NEW WATER AND SANITARY SEWER MAINS SHALL NOT BE PERFORMED UNTIL ALL OTHER ADJACENT
- 5. OPEN CUTTING OF EXISTING ROADWAYS IS ONLY ALLOWED AS APPROVED AND NOTED ON THESE APPROVED PLANS. ANY OPEN CUT SHALL BE RESTORED IN ACCORDANCE WITH THE COF STANDARD TRENCH DETAIL.

BASE COURSES & CRUSHED SURFACING

- 1. Gravel Bases and Ballast Material Gradation Shall Meet the Current Edition of WSDOT Standard
- BALLAST, GRAVEL BASE AND CRUSHED SURFACING SHALL BE COMPACTED TO AT LEAST 95% OF MAXIMUM DRY
- 3. THE GRADED AND COMPACTED SURFACE OF THE CRUSHED SURFACING TOP COURSE SHALL BE WITHIN 1/2 INCH OF
- 4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MATERIAL AND COMPACTION TESTING. PRIOR TO IMPORTING OF

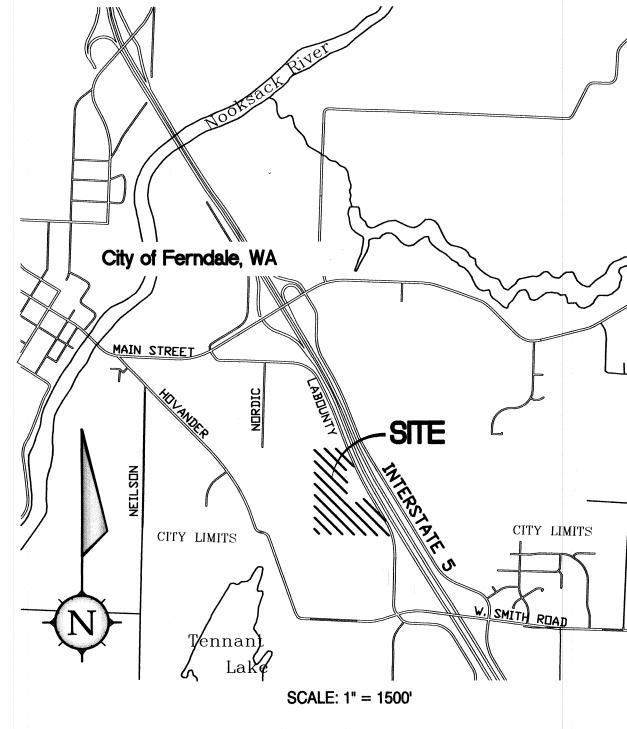
MATERIAL FOR BASE AND CRUSHED SURFACING TOP COURSE THE CONTRACTOR SHALL PROVIDE EVIDENCE OF

SATISFACTORY PASSING GRADING AND DEGRADATION TEST RESULTS TO THE ENGINEER

- 1. THE FOLLOWING STANDARD DETAILS SHALL BE USED IN CONSTRUCTING WATER SUPPLY SYSTEM IMPROVEMENTS PIPE BEDDING COFSD W-11 TRENCH BACKFILL COFSD W-11
- FIRE HYDRANT ASSEMBLY COFSD W-1 THRUST BLOCKING COFSD W-2, W-3 & W-4
- 2. ALL WORK AND MATERIALS SHALL CONFORM TO THE REQUIREMENTS OF THE CITY OF FERNDALE DEVELOPMENT STANDARDS, SECTIONS 702 AND 705 AND THE CURRENT EDITION OF THE WSDOT STANDARD SPECIFICATIONS.
- 3. ALL WATER MAIN PIPE SHALL BE DUCTILE IRON PER SECTION 9-30.1(1) OF THE WSDOT SPECS., UNLESS OTHERWISE APPROVED BY THE PUBLIC WORKS DIRECTOR.
- 4. MATERIAL FOR FITTINGS SUCH AS CROSSES, TEES, BENDS, REDUCERS AND SLEEVES SHALL BE DUCTILE IRON. JOINTS SHALL BE M.J., FLANGED OR PUSH-ON JOINTS AND SHALL CONFORM TO SECTION 9-30.2(1) OF THE WSDOT
- 5. CONCRETE BLOCKING SHALL BE AS SPECIFIED IN CITY OF FERNDALE STANDARD DETAILS W-2, W-3 AND W-4, OR AS DIRECTED BY THE ENGINEER OF RECORD. BLOCKS SHALL BE INSTALLED AS SPECIFIED IN SECTION 7-09.3(21) OF THE WSDOT SPECS. NO PRE-CAST BLOCKS ARE ALLOWED.
- 6. CONNECTIONS TO EXISTING WATER MAINS THE CONTRACTOR MUST NOTIFY THE CITY OF FERNDALE PUBLIC WORKS DIRECTOR OF A PROPOSED CONNECTION AT LEAST FOUR WORKING DAYS IN ADVANCE.
- 7. ALL HYDROSTATIC TESTING AND DISINFECTION OF WATER MAINS SHALL CONFORM TO SECTION 7-09.3(23) AND SECTION 7-09.3(24) OF THE WSDOT SPECS. HYDROSTATIC TEST PRESSURE FOR WATER MAIN ACCEPTANCE SHALL BE 250 PSI AND SHALL BE DONE ACCORDING TO CITY OF FERNDALE REQUIREMENTS. THE CITY OF FERNDALE LABORATORY SHALL CONDUCT ALL DISINFECTION AND BACTERIOLOGICAL TESTS. THE PIPE WILL NOT PASS TESTING UNLESS A ZERO BACTERIAL COUNT IS MEASURED ON TWO CONSECUTIVE TESTS, CONDUCTED 24 HOURS APART. THE CONTRACTOR SHALL CALL AT LEAST 24 HOURS IN ADVANCE TO SCHEDULE TESTING.
- 8. BACKFILL SHALL BE GRAVEL BASE, CLASS B, IN ALL STREET RIGHTS-OF-WAY, COMPACTED TO MINIMUM 95% OPTIMUM DENSITY. IN UNIMPROVED AREAS, MINIMUM COMPACTION SHALL BE 90% OF OPTIMUM DENSITY.
- 9. ALL PIPES SHALL HAVE A MINIMUM COVER OF 36" AND A MAXIMUM OF 42".
- 10. ALL VALVES SHALL BE EITHER GATE OR BUTTERFLY TYPE VALVES AND SHALL BE INSTALLED WITH SLIP TYPE CAST IRON VALVE BOXES. GATE VALVES SHALL BE USED FOR LINES 2 INCHES THROUGH 10 INCHES IN DIAMETER. SHORT-BODY VALVES SUITABLE FOR A NON-SHOCK SHUT-OFF PRESSURE OF 130 PSI AND SUITABLE FOR DIRECT BURIAL ARE SPECIFIED. GATE VALVES SHALL BE RESILIENT SEATED IRON-BODY, FULL-BRONZE MOUNTED VALVES CONFORMING TO AWWA C509 AND SUITABLE FOR SERVICE WITH THE TYPE AND CLASS OF PIPE USED. ALL VALVES SHALL HAVE NON-RISING STEMS AND SHALL OPEN COUNTERCLOCKWISE AND SHALL BE EQUIPPED WITH A 2 INCH SQUARE OPERATING NUT. VALVES WILL BE FLANGE OR M.J. JOINTS. VALVE MARKERS SHALL BE LOCATED OUTSIDE
- 11. WATER SERVICE TAP INSTALLATIONS SHALL MEET THE REQUIREMENTS OF THE CITY OF FERNDALE DEVELOPMENT
- 12. FIRE HYDRANTS AND FIRE MAINS MUST CONFORM TO COFSD W-1 AND THE FOLLOWING STANDARDS: a. Fire hydrants shall have two individually valved 2-1/2" ports and one 5-1/4" main valve opening. A 4-1/2" NST PUMPER NOZZLE AND A 5" STORZ PORT WITH CAP AND AIRCRAFT CABLE SHALL BE SUPPLIED. HYDRANTS SHALL BE M&H 129 HYDRANTS. b. FIRE HYDRANTS SHALL HAVE THE STORZ PORT FACING THE REQUIRED ACCESS AND THE BASE FLANGE OF THE
- THE LOWEST STEM SHALL BE A MINIMUM OF 14" ABOVE THE GROUND. c. IF THE PUBLIC WORKS DIRECTOR DETERMINES THAT FIRE HYDRANTS ARE VULNERABLE TO VEHICULAR DAMAGE, APPROPRIATE HYDRANT GUARD POSTS SHALL BE PROVIDED. NO OBSTRUCTIONS SHALL EXIST WITHIN A 3-FOOT WORKING AREA OF EACH REQUIRED ACCESS. HYDRANT SHUTOFF VALVES SHALL BE LOCATED BETWEEN 5' AND 20'

HYDRANT MUST NOT VARY MORE THAN 1 FOOT IN ELEVATION FROM THE GRADE LEVEL OF THE REQUIRED ACCESS.

- FROM THE HYDRANT. d. Underground supplies to fire hydrants must be inspected. Such inspection shall include visual INSPECTION OF PIPING AND HYDROSTATIC PRESSURE TESTING TO A MIN. OF 250 PSI. A FLOW TEST WILL BE REQUIRED WHEN INSTALLATION IS COMPLETE.
- e. FIRE HYDRANTS MUST BE MAINTAINED IN AN OPERABLE CONDITION AT ALL TIMES AND MUST BE REPAIRED OR REPLACED WHEN DEFECTIVE. HYDRANTS SHALL BE FULLY OPERABLE BEFORE CONSTRUCTION COMMENCES ABOVE GRADE LEVEL.



VICINITY MAP - PACIFIC FERN BUSINESS PARK CITY OF FERNDALE, WA

(360) 354-0335

SURVEYOR: POWERTEK SURVEYING

APC ENGINEERS

SHEET INDEX

- COVER SHEET AND GENERAL NOTES
- SITE PLAN
- SWPPP AND TESCP
- GRADING AND UTILITIES

BASIS OF ELEVATION / CITY OF FERNDALE (83/91) BEARING N43°14'31"E PROJECT BENCHMARK: BETWEEN FERN 12 (C.O.F) AND FERN 360 VERTICAL DATUM: CITY OF FERNDALE (NGVD 29) FERN12 - SURFACE MONUMENT ELEV: 31.27 SOURCE OF BOUNDARY: | PACIFIC FERN BUSINESS PARK GENERAL AND SPECIFIC BINDING SITE PLAN BY POWERTEK DATED 1/18/2019 SOURCE OF CONTOURS: TOPOGRAPHIC SURVEY FROM WILSON SURVEY/ENGINEERING CONTOUR INTERVAL: 1' CONTOURS CONTOURS ACCURATE TO ONE HALF THE CONTOUR INTERVAL UNLESS OTHERWISE NOTED. SOURCE AND ACCURACY EXISTING UTILITIES ARE SHOWN BASED ON UTILITY OF UTILITY INFORMATION: COMPANY PAINTED LOCATION MARKS AND CITY RECORD DRAWINGS, AND MAY NOT REPRESENT ALL UNDERGROUND OR ABOVE-GROUND UTILITIES OR SITE FEATURES. ALL EXISTING UTILITY LOCATIONS SHOWN ARE APPROXIMATE; THE LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES SHALL BE FIELD VERIFIED BY THE CONTRACTOR. SCOPE OF WORK: THE SCOPE OF WORK FOR PREPARATION OF THIS MAP AND ALL EXISTING AND PROPOSED FEATURES IS LIMITED IN THE EXTENT OF FIELD INVESTIGATIONS OF ABOVE AND BELOW GROUND FEATURES AND/OR UTILITIES, AND RELIES ON THE WORK OF OTHERS, INCLUDING SURVEYS, MAPS, RECORD DRAWINGS, AND OTHER INFORMATION SOURCES AS NOTED HEREON.

MAP NOTES

ENGINEER'S CERTIFICATION

HEREBY CERTIFY THAT THE IMPROVEMENTS FOR PACIFIC FERN BUSINESS PARK — LOT 5 HAVE BEEN INSPECTED BY APC ENGINEERS AND TO THE BEST OF MY KNOWLEDGE, HAVE BEEN CONSTRUCTED IN GENERAL CONFORMANCE WITH THE CITY OF FERNDALE DEVELOPMENT STANDARDS, THE CITY OF FERNDALE MUNICIPAL CODE, SUBSEQUENT Standards adopted by reference therein, and standard engineering practice.

SURVEYORS CERTIFICATION

I CERTIFY THAT THE LOCATIONS, ELEVATIONS, DEPTHS, AND AS-BUILT COMMENTS REFLECTING MATERIALS ACTUALLY USED DURING CONSTRUCTION ACCURATELY REFLECT existing field conditions as determined by ME or under My Direct supervision on THIS DATE: <u>SEPTEMBER-DECEMBER 2019.</u>

JEREMY DISCH, PLS

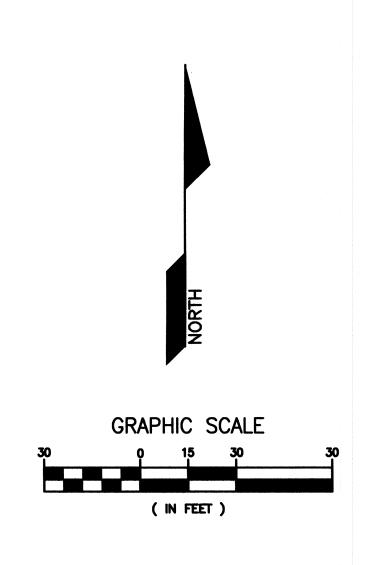
RECORD DRAWING NOTE: INFORMATION VERIFIED BY SURVEYOR/INSPECTORS MARKED "ASB." RECORD DRAWINGS PREPARED TO INCORPORATE AVAILABLE INFORMATION FROM AS-BUILT SURVEY/CONTRACTOR AS-BUILT/INSPECTOR COMMENTS

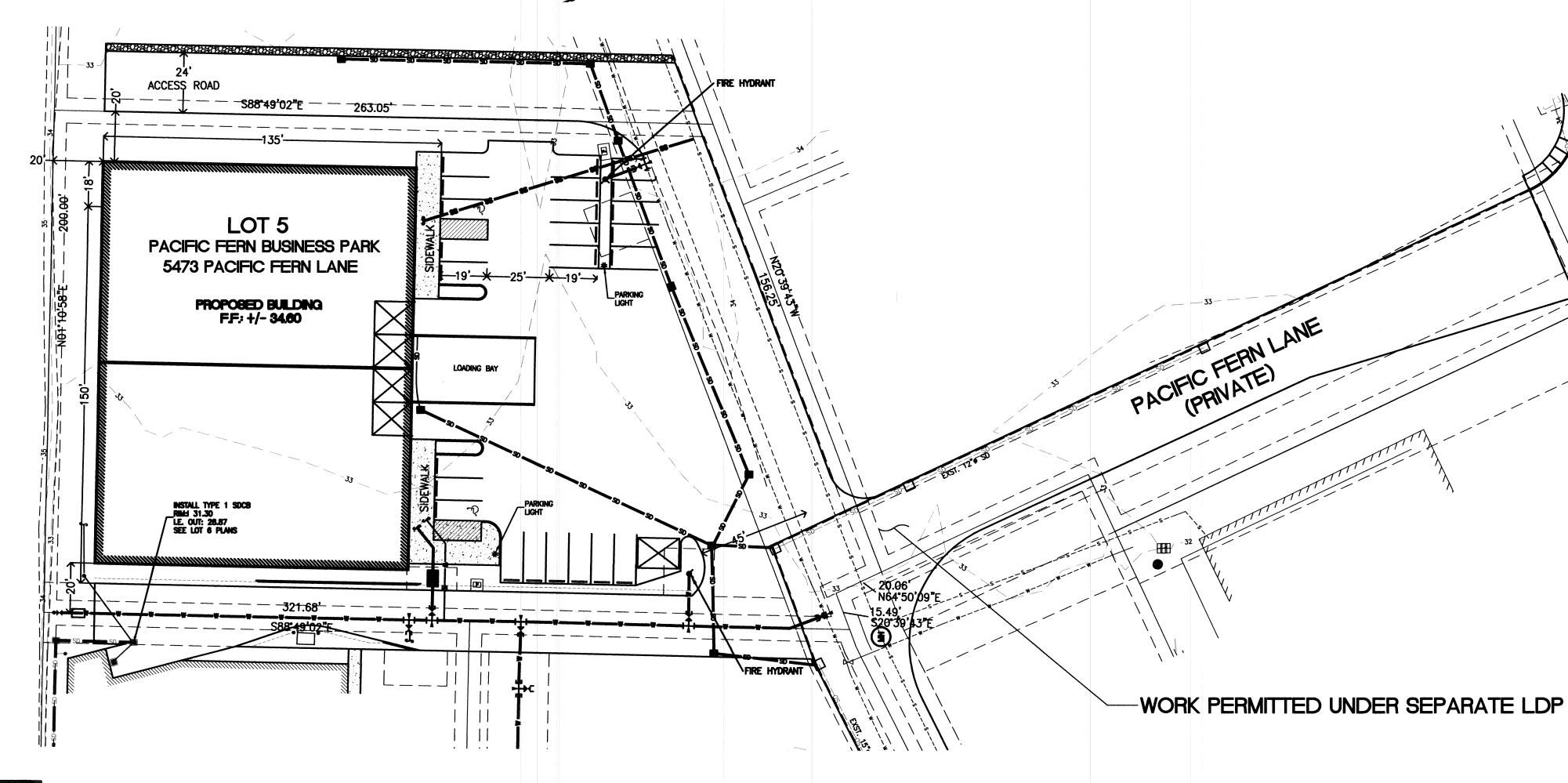
APPROVED

CITY OF FERNDALE
PUBLIC WORKS DEPARTA

CALL 2 DAYS BEFORE YOU DIG 1-800-424-5555

IAS-BUILT - RECORD DRAWINGS JANUARY 2020





LEGEND PROPOSED RIGHT-OF-WAY LINE UNDERGROUND POWER UNDERGROUND TV FIBER OPTICS OVERHEAD POWER OVERHEAD TELEPHONE -----ot----GAS MAIN ____ G __ __ G __ __ WATER MAIN SANITARY SEWER MAIN -----SS----STORM DRAIN DITCH/FLOW LINE -->--->---->---->-----EDGE OF PAVEMENT _____ CURB AND GUTTER BUILDING WALL **FENCE** ROCKERY WALL ELEV. CONTOUR ※ 8 TREES/VEGETATION STORM DRAIN CATCH BASIN TYPE 2 TYPE 1 UTILITY POLE STREET/TRAFFIC SIGN SAN. SEWER MANHOLE SAN. SEWER CLEAN-OUT WATER SERVICE METER A P FIRE HYDRANT A +

SITE PLAN NOTES

- 1. ALL DRIVING, PARKING, AND VEHICLE LOADING AREAS SHALL BE PAVED WITH AN ALL-WEATHER DRIVING SURFACE ACCEPTABLE TO THE COMMUNITY DEVELOPMENT AND PUBLIC WORKS DEPARTMENTS.
- 2. ALL PARKING AND ACCESS SHALL CONFORM TO THE REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT (ADA).
- 3. BUILDING LIGHTING TO BE IN ACCORDANCE WITH THE ARCHITICTURAL PLANS AND BUILDING PERMIT DESIGN. PARKING LIGHTING LOCATIONS AS SHOWN ON THE SITE PLAN.
- 4. TRASH RECYCLING AREA LOCATION, DIMENSION, ACCESS, AND DETAILS TO BE IN ACCORDANCE WITH SANITARY SEWER CO. (SSC) REQUIREMENTS.
- 5. MAILBOX AND POSTAL SERVICE LOCATION SHALL BE APPROVED BY THE FERNDALE POST OFFICE.
- 6. THE LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES SHALL BE FIELD VERIFIED BY THE CONTRACTOR, SEE GENERAL NOTES, THIS PLAN SET.
- 7. SITE PLAN INCLUDING PARKING LAYOUT, ACCESS LANES, AND TRUCK ACCESS TO BE VERIFIED AND APPROVED BY OWNER AND FABER BROTHERS CONSTRUCTION PRIOR TO CONSTRUCTION. SEE PROJECT ARCHITECTURAL PLANS FOR PARKING LAYOUT, LANDSCAPING REQUIREMENTS, LIGHTING, TRASH ENCLOSURE AND FENCING INCLUDING GATE DETAILS, ADA ACCESSIBILITY REQUIREMENTS, AND SIGNAGE.
- 8. FIRE HYDRANT LOCATIONS AND EMERGENCY ACCESS AND SAFETY PROVISIONS PENDING WHATCOM COUNTY FIRE DISTRICT #7 REVIEW. FIRE DISTRICT APPROVAL IS REQUIRED PRIOR TO THE" START OF CONSTRUCTION.
- 9. ALL PARKING DIMENSIONS IN ACCORDANCE WITH CITY OF FERNDALE ZONING AND DEVELOPMENT STANDARDS, AND REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT (ADA).
- 10. EXISTING SITE CONDITIONS, TOPOGRAPHY, EXISTING AND PROPOSED LOT LINE, EXISTING UTILITIES AND FEATURES SHOWN PER SURVEY PROVIDED BY POWERTEK SURVEYING. BASIS OF BEARINGS: CITY OF FERNDALE (83/91) BEARING N43°14'31"E BETWEEN FERN12 (C.O.F.) AND FERN 360 VERTICAL DATUM: CITY OF FERNDALE (NGVD29) FERN 12 - SURFACE MONUMENT IN THE NW CORNER OF THE INTERSECTION OF SMITH & LABOUNTY ELEVATION = 341.27 POWERTEK #10 (NAIL/SHINER) ELEVATION = 34.82

RECORD DRAWING NOTE: INFORMATION VERIFIED BY SURVEYOR/INSPECTORS MARKED "ASB." RECORD DRAWINGS PREPARED TO INCORPORATE AVAILABLE INFORMATION FROM AS-BUILT SURVEY/CONTRACTOR AS-BUILT/INSPECTOR COMMENTS

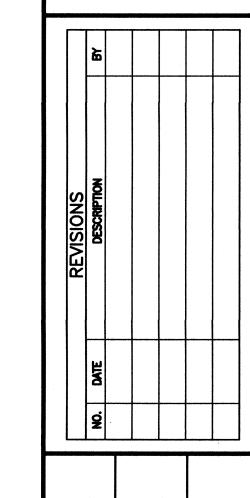
AS-BUILT - RECORD DRAWINGS JANUARY 2020

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APPROVED

JAN 0 8 2020

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FABER CONSTRUCTION	PACIFIC FERN - LOT 5	SITE DI AN
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CITY OF FERNDALE
PUBLIC WORKS DEPARTMENT

CONSTRUCTION STORMWATER POLLUTION PREVENTION PLAN

Element #1 - Mark Clearing Limits

To protect adjacent properties and to reduce the area of soil exposed to construction, the limits of construction will be clearly marked before land—disturbing activities begin. All WORK shall be staked for line and grade in accordance with City of particular BMP's specifications. Visual monitoring of the BMPs will be conducted at least once every calendar week and Ferndale Development Standards. In general, natural vegetation and native topsoil adjacent to work areas shall not be

Element #2 - Establish Construction Access

Construction access or activities occurring on unpaved areas shall be minimized, yet where necessary, access points shall be stabilized to minimize the tracking of sediment onto public roads, and wheel washing, street sweeping, and street cleaning shall be employed when needed to prevent sediment from entering state waters.

Element #3 - Control Flow Rates

This project is not anticipated to impact downstream flow rates either during or after construction. However, the Contractor shall be responsible for monitoring stormwater runoff in and around the work area during construction, and taking measures as needed to prevent accumulation of runoff as a result of the work that could cause on—site erosion or impact surrounding. The construction work shall be phased to the extent practicable to limit the length of open trenches and disturbed or downstream properties and drainage conveyances.

Element #4 - Install Sediment Controls

All stormwater runoff from disturbed areas shall pass through an appropriate sediment removal BMP before leaving the construction site or entering a storm drainage conveyance. All existing drainage inlets that could accept runoff from the work stage of construction, per the Scheduling BMP (C 162). area shall be protected with Storm Drain Inlet Protection (BMP C220). Where needed or as directed by the Engineer, Silt Fence (BMP C233) and/or Straw Wattles (BMP C235) may be implemented along the work great

Sediment will be removed from paved areas in and adjacent to construction work areas manually or using mechanical sweepers, as needed, to minimize tracking of sediments on vehicle tires away from the site and to minimize washoff of sediments from adjacent streets in runoff.

Exposed and unworked soils shall be stabilized with the application of effective BMPs to prevent erosion throughout the life of Maintaining an Updated Construction SWPPP the project. In general, any slopes will be stabilized as soon as possible and soil stockpiles will be temporarily provided with This SWPPP shall be retained on—site or within reasonable access to the site. Plastic Covering (BMP C123). All stockpiled soils shall be stabilized from erosion, protected with sediment trapping measures, The SWPPP shall be modified whenever there is a change in the design, construction, operation, or maintenance at the and where possible, be located away from storm drain inlets, waterways, and drainage channels.

All disturbed areas along the sanitary sewer route shall be stabilized with Temporary and Permanent Seeding (BMP C120) or Mulching (BMP C121).

Element #6 - Protect Slopes

No cut and fill slopes are anticipated as part of this project.

Element #7 - Protect Drain Inlets

All storm drain inlets and culverts made operable during construction shall be protected to prevent unfiltered or untreated water from entering the drainage conveyance system. However, the first priority is to keep all access roads clean of sediment and keep street wash water separate from entering storm drains until treatment can be provided. Storm Drain Inlet Protection (BMP C220) will be implemented for all drainage inlets and culverts that could potentially be impacted by sediment—laden runoff on and near the project site.

Element #8 - Stabilize Channels and Outlets

Where site runoff is to be conveyed in channels, or discharged to a stream or some other natural drainage point, efforts will be taken to prevent downstream erosion. Where silt-laden runoff is conveyed from the work area in an open conveyance channel or ditch, the Contractor shall install Check Dams (BMP C207) as directed by the Engineer, at a typical spacing of 50-feet 0.C.

All pollutants, including waste materials and demolition debris, that occur onsite shall be handled and disposed of in a manner that does not cause contamination of stormwater. Good housekeeping and preventative measures will be taken to ensure that the site will be kept clean, well organized, and free of debris. If required, BMPs to be implemented to control specific

- All vehicles, equipment, and petroleum product storage/dispensing areas will be inspected regularly to detect any leaks or spills, and to identify maintenance needs to prevent leaks or spills.
- On—site fueling tanks and petroleum product storage containers shall include secondary containment.
 Spill prevention measures, such as drip pans, will be used when conducting maintenance and repair of vehicles or
- equipment. In order to perform emergency repairs on site, temporary plastic will be placed beneath and, if raining, over the vehicle.
 Contaminated surfaces shall be cleaned immediately following any discharge or spill incident.
- Any chemicals stored in the construction areas will conform to the appropriate source control BMPs listed in Volume IV of the Écology stormwater manual. In Western WA, all chemicals shall have cover, containment, and protection provided on site, per BMP C153 for Material Delivery, Storage and Containment
- Application of agricultural chemicals, including fertilizers and pesticides, shall be conducted in a manner and at application rates that will not result in loss of chemical to stormwater runoff. Manufacturers' recommendations for application procedures and rates shall be followed.
- Dust released from demolished sidewalks, buildings, or structures will be controlled using Dust Control measures (BMP
- Storm drain inlets vulnerable to stormwater discharge carrying dust, soil, or debris will be protected using Storm Drain Inlet Protection (BMP C220 as described above for Element 7). - Process water and slurry resulting from sawcutting and surfacing operations will be prevented from entering the waters of
- the State by implementing Sawcutting and Surfacing Pollution Prevention measures (BMP C152).

 Process water and slurry resulting from concrete work will be prevented from entering the waters of the State by
- implementing Concrete Handling measures (BMP C151).

Element #10 - Control Dewatering

All dewatering water from open cut excavation, tunneling, foundation work, trench, or underground vaults shall be discharged into a controlled conveyance system prior to discharge to a sediment trap or sediment pond. Channels will be stabilized, per Element #8. Clean, non-turbid dewatering water will not be routed through stormwater sediment ponds, and will be discharged to systems tributary to the receiving waters of the State in a manner that does not cause erosion, flooding, or a violation of State water quality standards in the receiving water. Highly turbid dewatering water from soils known or suspected to be contaminated, or from use of construction equipment, will require additional monitoring and treatment as required for the specific pollutants based on the receiving waters into which the discharge is occurring. Such monitoring is the responsibility of the contractor.

However, the dewatering of soils known to be free of contamination will trigger BMPs to trap sediment and reduce turbidity. At a minimum, geotextile fabric socks/bags/cells will be used to filter this material. Other BMPs to be used for sediment trapping and turbidity reduction include the following:

- Concrete Handling (BMP C151) - Use of a sedimentation bag, with outfall to a ditch or swale for small volumes of localized dewatering.

> TYPICAL CROSS SECTION - BURY BOTTOM OF FILTER POST SPACING MAY BE INCREASED TO 8' IF WIRE BACKING IS USED.

NOTES: 1. FENCE SHALL NOT BE INSTALLED ON SLOPES STEEPER THAN 2:1. 2. JOINTS IN FILTER FABRIC SHALL BE OVERLAPPED 6 INCHES AT POST 3. USE STAPLES, WIRE RINGS, OR EQUIVALENT TO ATTACH FABRIC TO WIRE FENCE. 4. REMOVE SEDIMENT WHEN IT REACHES 1/3 FENCE HEIGHT.

> SILT FENCE NOT TO SCALE

All temporary and permanent erosion and sediment control BMPs shall be maintained and repaired as needed to assure continued performance of their intended function. Maintenance and repair shall be conducted in accordance with each within 24 hours of any rainfall event that causes a discharge from the site. If the site becomes inactive, and is temporarily stabilized, the inspection frequency will be reduced to once every month.

All temporary erosion and sediment control BMPs shall be removed within 30 days after the final site stabilization is achieved or after the temporary BMPs are no longer needed. Trapped sediment shall be removed or stabilized on site.

Disturbed soil resulting from removal of BMPs or vegetation shall be permanently stabilized.

Element #12 - Manage the Project Project management by the Contractor shall incorporate the key components listed below:

Phasing of Construction

areas at one time, in order to prevent soil erosion, and, to the maximum extent possible, the transport of sediment from the site during construction.

Revegetation of disturbed areas and maintenance of that vegetation shall be an integral part of the work during each

function. A Certified Erosion and Sediment Control Lead shall be on-site or on-call at all times. Whenever inspection and/or monitoring reveals that the BMPs identified in this SWPPP are inadequate, due to the actual or potential discharge of a significant amount of any pollutant, appropriate BMPs or design changes shall be implemented as soon

construction site that has, or could have, a significant effect on the discharge of pollutants to waters of the state.

Element #13 - Protect L.I.D. Features

facilities are included in this site improvement.

EROSION CONTROL SPECIFICATIONS:

1. ALL DISTURBED AREAS OR EXPOSED SOILS SHALL BE COVERED WITH MULCH OR WOOD CHIPS IF SOILS ARE TO REMAIN UNWORKED FOR MORE THAN 2 DAYS, OCTOBER 1 THROUGH APRIL 30, OR 7 DAYS. MAY 1 THROUGH SEPTEMBER 30. UPON COMPLETION OF CONSTRUCTION, ALL DISTURBED AREAS AND CUT/FILL SLOPES ARE TO BE SEEDED WITH THE FOLLOWING EROSION CONTROL SEED

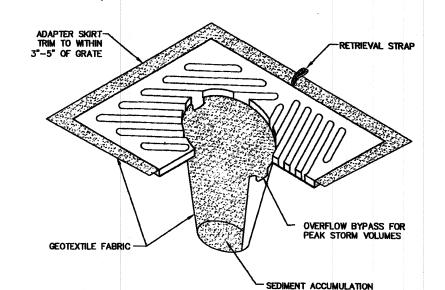
75-80% TALL FESCUE 10-15% SEASIDE/COLONIAL BENTGRASS 5-10% REDTOP

APPROVED BY THE ENGINEER.

CONTRACTOR SHALL BE RESPONSIBLE FOR VEGETATION UNTIL IT IS FULLY ESTABLISHED, AS

2. EXISTING CATCH BASINS ACCEPTING RUNOFF FROM THE SITE AND DRAINAGE INLETS PLACED INTO SERVICE PRIOR TO FULL SITE STABILIZATION SHALL BE PROTECTED WITH CATCH BASIN INSERTS PER

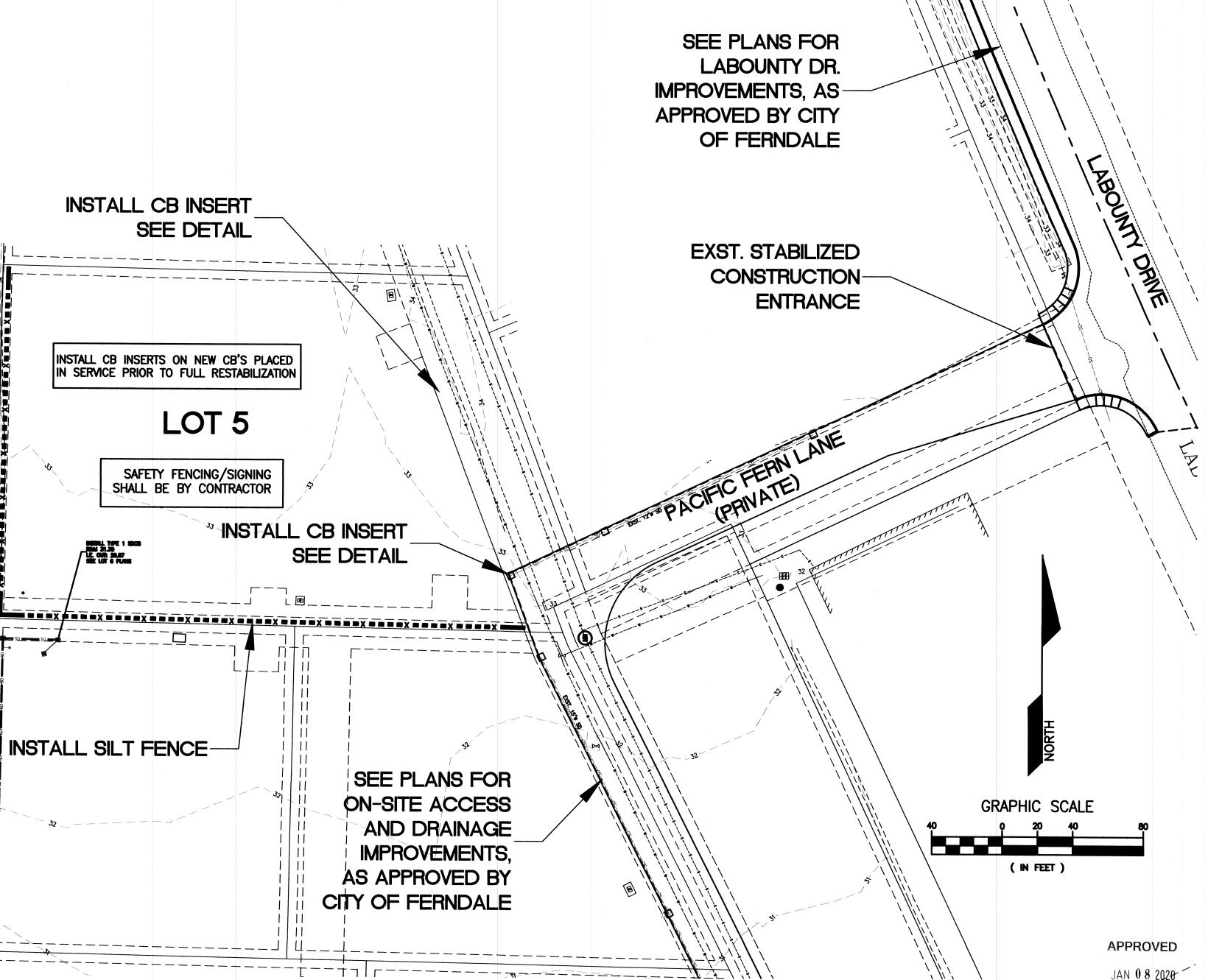
3. ALL SAWCUTTING AND SURFACING SHALL BE PERFORMED IN ACCORDANCE WITH DEPARTMENT OF ECOLOGY BMP C152. SLURRY AND CUTTINGS SHALL BE VACUUMED DURING DURING SAWCUTTING OPERATIONS, SHALL NOT REMAIN ON PERMANENT PAVEMENT OVERNIGHT. SHALL NOT DRAIN TO ANY NATURAL OR CONSTRUCTED DRAINAGE CONVEYANCE, AND SHALL BE DISPOSED OF IN A MANNER THAT DOES NOT VIOLATE GROUNDWATER OR SURFACE WATER QUALITY STANDARDS.

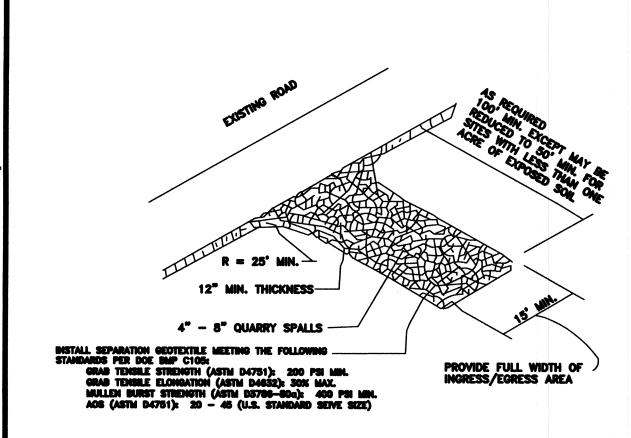


1. INSERT SHALL BE INSTALLED PRIOR TO CLEARING AND GRADING ACTIVITY, OR UPON PLACEMENT OF A NEW CATCH BASIN.

2. SEDIMENT SHALL BE REMOVED FROM THE UNIT WHEN IT BECOMES HALF FULL. 3. SEDIMENT REMOVAL SHALL BE ACCOMPLISHED BY REMOVING THE INSERT, EMPTYING, AND RE-INSERTING IT INTO THE CATCH RASIN.

CATCH BASIN INSERT





CONSTRUCTION ENTRANCE

NOT TO SCALE

All BMPs shall be inspected, maintained, and repaired as needed to assure continued performance of their intended

Stormwater runoff for this site is managed in the Pacific Fern Business Park GBSP stormwater pond facility. No L.I.D.

EROSION CONTROL NOT AS-BUILT

CALL 2 DAYS BEFORE YOU DIG 1-800-424-5555

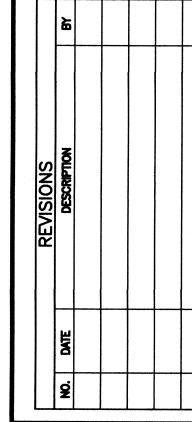
CITY OF FERNDALE PUBLIC WORKS DEPART

P.S.

PRO

ASSOCIATED





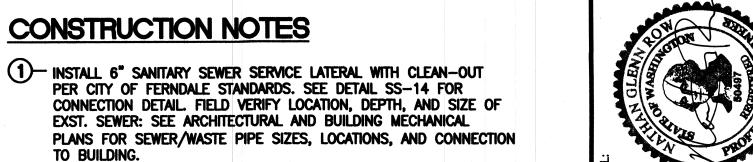
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3

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CALL 2 DAYS



- (2)— ALL DOORWAY TRANSITIONS AND FLOOR ELEVATIONS SHALL BE PER ARCHITECTURAL DESIGN. CONTRACTOR SHALL VERIFY AND NOTIFY THE ENGINEER AND ARCHITECT OF ANY CONFLICTS.
- (3)— INSTALL POTABLE WATER METER SERVICE AND INSTALL POTABLE WATER SERVICE PIPING TO BUILDING. 1" DCVA REQUIRED ON DOMESTIC WATERLINE, SEE CITY STD. DETAIL W-18. SEE MECHANICAL PLANS FOR PIPE SIZE AND TYPE, LOCATION OF CONNECTION TO BUILDING, AND DETAILS.
- 4 RESTORE WITH LAWN/LANDSCAPE PER ARCHITECTURAL SITE
- (5)— INSTALL LANDSCAPE ISLAND WITH BARRIER EXTRUDED CURB, SEE LANDSCAPING PLANS FOR PLANTS AND TREATMENT.
- 6 INSTALL FIRELINE TO BUILDING SPRINKLER SYSTEM. PIV TO BE LOCATED IN VAULT. ALL PIPE JOINTS SHALL HAVE LOCKING GASKETS, MEGA LUG MJ RESTRAINTS ON ALL FITTINGS. SEE FIRE SUPPRESSION SYSTEM DESIGN, BY OTHERS, FOR SIZING AND

CITY INSPECTIONS ARE REQUIRED TO VERIFY INSTALLATION METHODS AND RECORDING THRUST BLOCKS PRIOR TO BACKFILL. PRESSURE AND BACTERIOLOGICAL TESTING REQUIRED PER CITY OF FERNDALE STANDARDS. SEPERATION IS REQUIRED BETWEEN THE PROPOSED FIRELINE AND AND CITY'S WATER MAIN UNTIL PRESSURE TEST AND BACTERIOLOGICAL ANALYSIS IS SATISFACTORY. CONTRACTOR SHALL MAKE FINAL CONNECTION WITH CITY INSPECTOR PRESENT, INSPECTIONS SHALL BE SCHEDULED 24-HOURS IN ADVANCE.

FIRE HYDRANT AND FDC LOCATIONS AND ADEQUACY TO BE DETERMINED BY WHATCOM COUNTY FIRE DIST. #7 (WCFD #7)

- (7)— INSTALL 6" CONCRETE SIDEWALK
- 8 24' ACCESS ROAD W/ HMA PAVING SEE TYPICAL PAVING SECTION
- 9 RETAINING WALL AT TRUCK RAMP. DESIGN BY OTHERS. SEE ARCHITECTURAL AND STRUCTURAL PLANS.
- 11)— INSTALL TRENCH DRAIN PER MANUFACTURE RECOMMENDATIONS RATED FOR MIN. H-20 LOAD. SUBMITTAL TO ENGINEER
- 12- TRASH ENCLOSURE, DESIGN BY OTHERS. SEE ARCHITECTURAL PLANS.
- (13)— LOCATION FOR POST-INDICATOR VALVE (PIV) AND FIRE DEPARTMENT CONNECTION (FDC). SEE NOTE 6 ABOVE.

CIVIL DESIGN NOTES

- GEOTECHNICAL INVESTIGATION OF SITE SOILS IS REQUIRED PRIOR TO STARTING WORK ON THE SITE. INVESTIGATION SHALL INCLUDE ASSESSMENT OF GROUND WATER TABLE, NATIVE SOIL COMPACTION. AND LOAD BEARING CAPACITY.
- 2. THE GEOTECHNICAL ENGINEER SHALL INSPECT AND APPROVE NATIVE SUBGRAGE PRIOR TO PLACEMENT OF GRAVEL BASE.
- 3. ALL STRUCTURAL FILL MATERIALS WITHIN THE PAVING SECTION SHALL BE TESTED FOR COMPACTION AND MATERIAL PROPERTIES BY THE GEOTECHNICAL ENGINEER. THE GEOTECHNICAL ENGINEER SHALL INSPECT AND APPROVE THE SUBGRADE PRIOR TO PAVING.
- 4. MAXIMUM ALLOWABLE SLOPE SHALL BE 2H:1V, TYP. HYDROSEED ALL DISTURBED AREAS OUTSIDE AREA OF PAVING/BUILDING ENVELOPE, EXCEPT WHERE OTHERWISE SPECIFIED IN THE APPROVED LANDSCAPING PLANS. FOR ALL SLOPES STEEPER THAN 3H:1V COVER WITH NORTH AMERICAN GREEN SC-150 EROSION CONTROL BLANKET AND
- 5. ALL EXISTING ON-SITE OVERHEAD AND UNDERGROUND UTILITIES, POLES, RISERS, AND OTHER EQUIPMENT WITHIN 5-FEET OF THE BUILDING FOUNDATION SHALL BE RELOCATED OR REMOVED AND MATERIALS DISPOSED OF OFF-SITE, UNLESS OTHERWISE APPROVED BY THE ENGINEER IN ACCORDANCE WITH A PLAN OR RECOMMENDATION FROM THE UTILITY PURVEYOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE REMOVAL OR RELOCATION OF ALL EXISTING UTILITIES WITH THE UTILITY COMPANIES, AND COMPLYING WITH APPLICABLE REGULATIONS AND REQUIREMENTS. ALL EXISTING UNDERGROUND UTILITY LIDS SHALL BE ADJUSTED TO FINISHED GRADE AS NEEDED.
- 6. THE LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES SHALL BE FIELD VERIFIED BY THE CONTRACTOR, SEE GENERAL NOTES, THIS PLAN SET.
- 7. SITE PLAN INCLUDING PARKING LAYOUT, ACCESS LANES, AND TRUCK ACCESS TO BE VERIFIED AND APPROVED BY OWNER AND FABER BROTHERS CONSTRUCTION PRIOR TO CONSTRUCTION. SEE PROJECT ARCHITECTURAL PLANS FOR PARKING LAYOUT, LANDSCAPING REQUIREMENTS, LIGHTING, TRASH ENCLOSURE AND FENCING INCLUDING GATE DETAILS, ADA ACCESSIBILITY REQUIREMENTS, AND SIGNAGE.
- STORM DRAINAGE INSTALLED TO DATE SHOWN WITH AS-BUILT I.E. AND SLOPE AS OF 10/21/2019 PROVIDED BY POWERTEK SURVEYING.

RECORD DRAWING NOTE: INFORMATION VERIFIED BY SURVEYOR/INSPECTORS MARKED "ASB." RECORD DRAWINGS PREPARED TO INCORPORATE AVAILABLE INFORMATION FROM AS-BUILT SURVEY/CONTRACTOR AS-BUILT/INSPECTOR COMMENTS

APPROVED

JAN 08 2020

CITY OF FERNDALE

PUBLIC WORKS CEPARIMENT

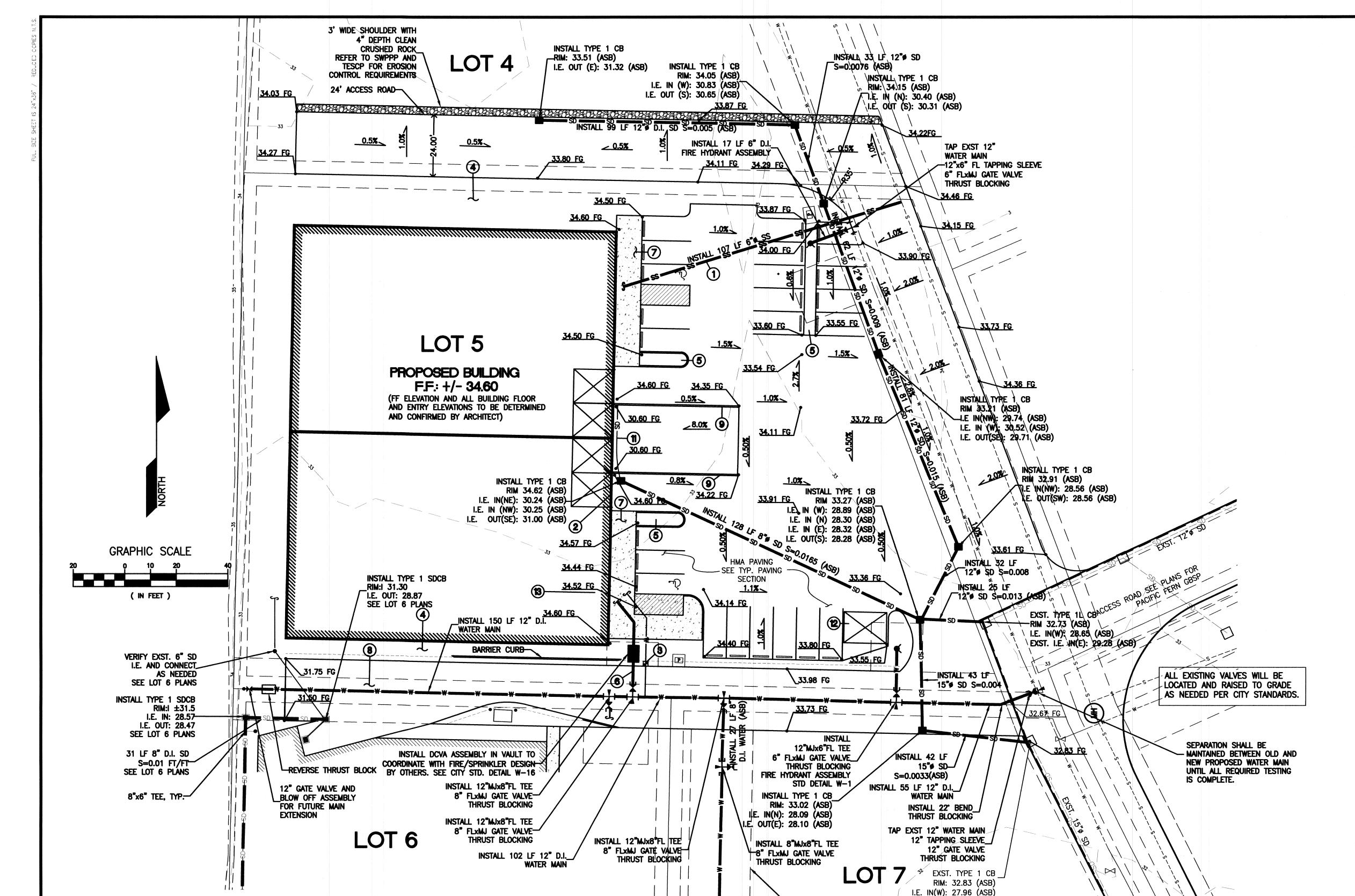
ZURN Z886-HPD

TRENCH NO. 8602

GRATE: HPD D.I. HEELPROOF SLOTTED CLASS E, H-20

> AS-BUILT - RECORD DRAWINGS JANUARY 2020

BEFORE YOU DIG 1-800-424-5555



3" CLASS B A.C.P

COMPACTED TO 95% MAX. DENSITY

2" MIN. DEPTH CRUSHED SURFACING - COMPACTED TO 95% MAX. DRY DENSITY (ASTM D-1557)

-----SLOPE VARIES-----

_10" MIN. GRAVEL BASE

_UNDISTURBED NATURAL SUBGRADE

AFTER STRIPPING TOPSOIL

TYPICAL PAVING SECTION

COMPACTED TO 95% MAX. DENSITY

SUBGRADE SHALL BE INSPECTED AND APPROVED

BY THE PROJECT GEOTECHNICAL CONSULTANT

GRADING NOTE

CONFIRM ALL FINISHED GRADES ADJACENT TO

ARCHITECT OF ANY DISCREPANCY.

BUILDINGS, INCLUDING ALL DOORWAYS AND ENTRIES,

WITH THE APPROVED ARCHITECTURAL PLANS, PRIOR TO

FINAL GRADING, AND NOTIFY THE ENGINEER AND THE

I.E. OUT(SE): 27.86 (ASB)

6-%6" -5-%"-- 6-%6" --

TRENCH DRAIN DETAIL

N.T.S.

-Water Easement

AF # 2019-1102541

4000 PSI CONCRETE, EXPANSION

SPECIFICATION, SUBMITTAL TO

2-#5 REBAR, 60K, 12" LAPS-

INSTALL 8"FLx8"FL TEE (3) 8" FLXMJ GATE VALVE

THRUST BLOCKING

ENGINEER REQUIRED

3" CRUSHED ROCK-

JOINT TO BE PER MANUFACTURER

