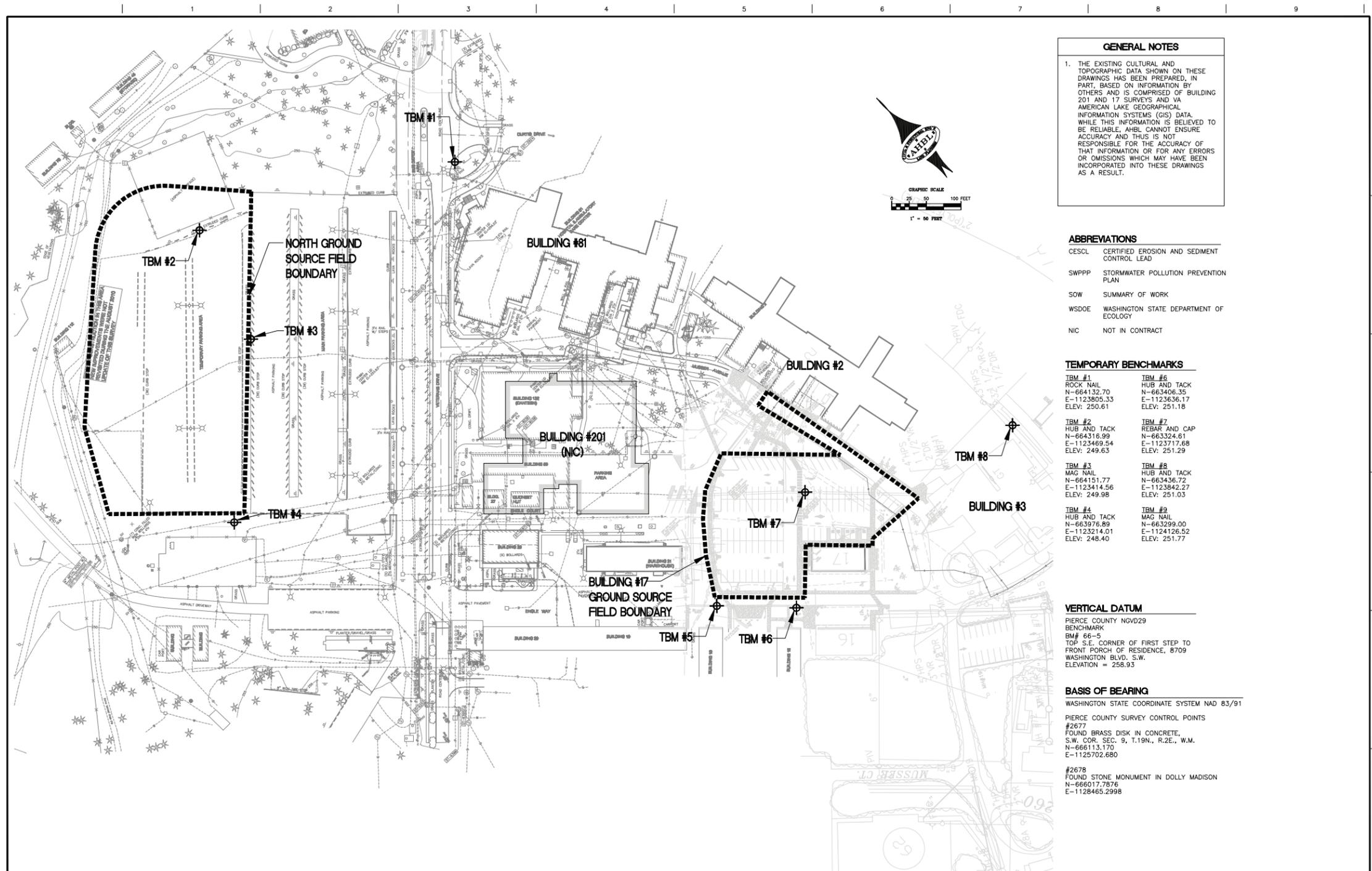


Appendix B

SELECTED SHEETS FROM 95% DESIGN PLANS

CS-101
CD-101
CD-202
CD-501
CG-201
MP-171
MP-811



GENERAL NOTES

1. THE EXISTING CULTURAL AND TOPOGRAPHIC DATA SHOWN ON THESE DRAWINGS HAS BEEN PREPARED, IN PART, BASED ON INFORMATION BY OTHERS AND IS COMPRISED OF BUILDING 201 AND 17 SURVEYS AND VA AMERICAN LAKE GEOGRAPHICAL INFORMATION SYSTEMS (GIS) DATA. WHILE THIS INFORMATION IS BELIEVED TO BE RELIABLE, AHEL CANNOT ENSURE ACCURACY AND THUS IS NOT RESPONSIBLE FOR THE ACCURACY OF THAT INFORMATION OR FOR ANY ERRORS OR OMISSIONS WHICH MAY HAVE BEEN INCORPORATED INTO THESE DRAWINGS AS A RESULT.

ABBREVIATIONS

CESCL CERTIFIED EROSION AND SEDIMENT CONTROL LEAD
 SWPPP STORMWATER POLLUTION PREVENTION PLAN
 SOW SUMMARY OF WORK
 WSDOE WASHINGTON STATE DEPARTMENT OF ECOLOGY
 NIC NOT IN CONTRACT

TEMPORARY BENCHMARKS

| | |
|--|---|
| TBM #1 ROCK NAIL N-664132.70 E-1123805.33 ELEV: 250.61 | TBM #6 HUB AND TACK N-663406.35 E-1123636.17 ELEV: 251.18 |
| TBM #2 HUB AND TACK N-664316.99 E-1123469.54 ELEV: 249.63 | TBM #7 REBAR AND CAP N-663324.61 E-1123717.68 ELEV: 251.29 |
| TBM #3 MAG NAIL N-664151.77 E-1123414.56 ELEV: 249.98 | TBM #8 HUB AND TACK N-663436.72 E-1123842.27 ELEV: 251.03 |
| TBM #4 HUB AND TACK N-663976.89 E-1123214.01 ELEV: 248.40 | TBM #9 MAG NAIL N-663299.00 E-1124126.52 ELEV: 251.77 |

VERTICAL DATUM

PIERCE COUNTY NGVD29 BENCHMARK
 BM# 66-5
 TOP S.E. CORNER OF FIRST STEP TO FRONT PORCH OF RESIDENCE, 8709 WASHINGTON BLVD., S.W.
 ELEVATION = 258.95

BASIS OF BEARING

WASHINGTON STATE COORDINATE SYSTEM NAD 83/91

PIERCE COUNTY SURVEY CONTROL POINTS

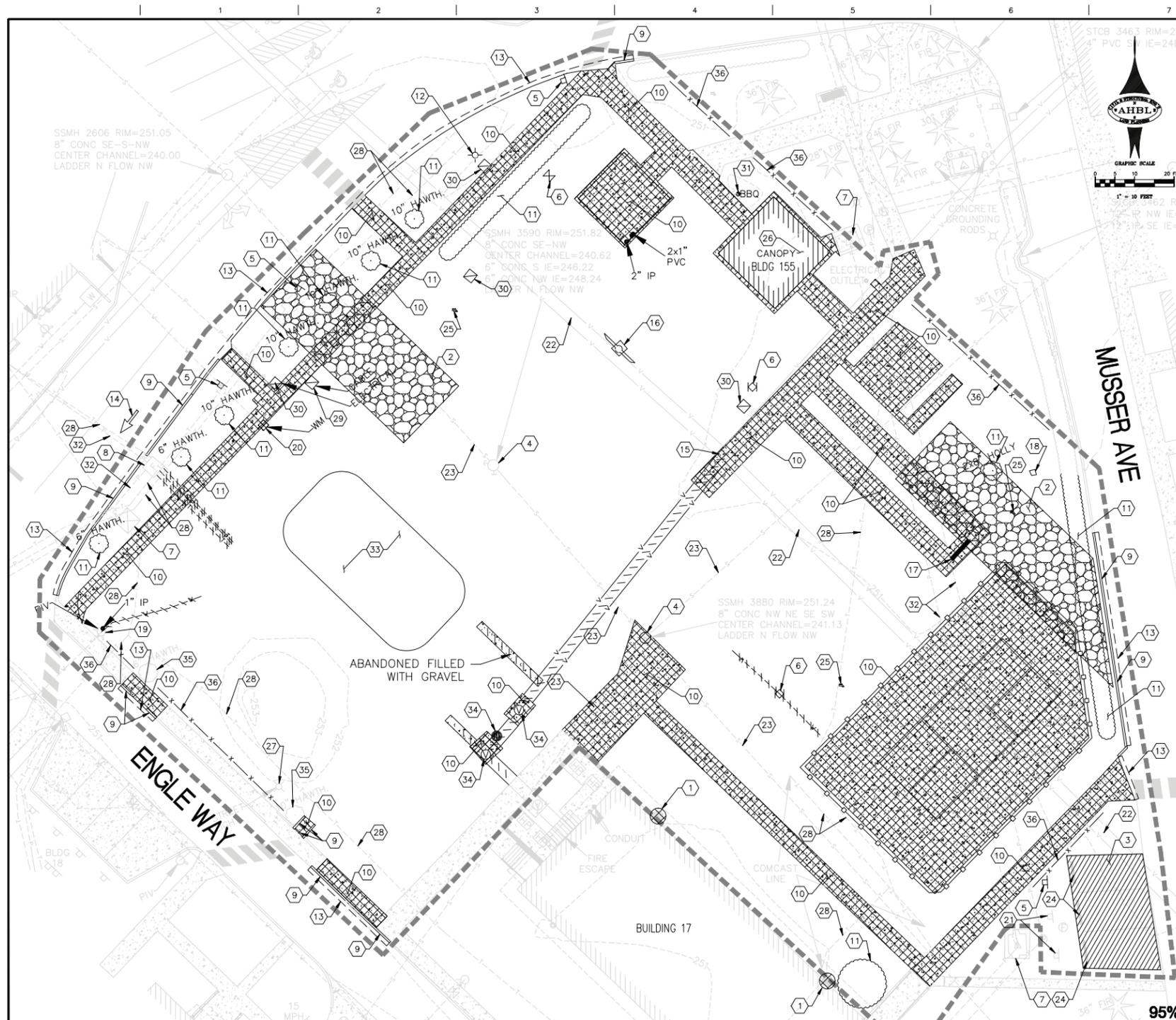
#2677
 FOUND BRASS DISK IN CONCRETE,
 S.W. COR. SEC. 9, T.19N., R.2E., W.M.
 N-666113.170
 E-1125702.680

#2678
 FOUND STONE MONUMENT IN DOLLY MADISON
 N-666017.7576
 E-1128465.2985

three inches = one foot
 one and one half inches = one foot
 one inch = one foot
 three quarters inch = one foot
 one half inch = one foot
 one quarter inch = one foot
 three eighths inch = one foot
 one eighth inch = one foot

95% DESIGN DOCUMENTS - NOT FOR CONSTRUCTION

| | | | | | |
|---|--|---|---|---------------------------------------|---|
| CONSULTANT: AHBL TACOMA, SEATTLE 2000 1st Ave, Suite 1000, Tacoma, WA 98402 Phone: (253) 833-1000, Fax: (253) 833-1001 | PRIME: engenuity systems LLC 40 BROADWAY, SUITE 100 TACOMA, WA 98402 PH (253) 292-0387 FX (253) 292-0388 www.engenuitysys.com | Drawing Title TOPOGRAPHIC INFORMATION | Project Title GROUND BASED HEAT PUMP SYSTEM | Project Number 663A4-10-351 | Office of Construction and Facilities Management |
| | | Approved Project Director | Location VA AMERICAN LAKE MADISON - TACOMA, WA | Building Number 23.17 | |
| Date 05-28-11 | Checked JRC | Drawn MFW/MS | Date 05-28-11 | Drawn MFW/MS | Page 23 of XXXX |



GENERAL NOTES

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS.
- EROSION CONTROL MEASURES SHALL BE PROVIDED IMMEDIATELY AT THE COMMENCEMENT OF CONSTRUCTION. HYDROSEED SHALL BE APPLIED TO ALL DISTURBED AREAS PER HYDROSEED NOTES, SHEET CD501.
- PROTECT EXISTING UTILITIES TO REMAIN.
- VERIFY EXISTING UTILITIES SERVICING SITE.
- INFORMATION PRESENTED IN THIS DRAWING REPRESENTS THE BEST AVAILABLE INFORMATION AT THE TIME OF DESIGN. THIS DRAWING MAY NOT INCLUDE ALL EXISTING UTILITIES, AND THE UTILITY LOCATIONS SHOWN ARE APPROXIMATE ONLY. CONTRACTOR SHALL SATISFY THEMSELVES BY WHATEVER MEANS DEEMED NECESSARY THAT ALL UTILITIES HAVE BEEN IDENTIFIED AND LOCATED PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY THE CONTRACTOR QUALITY CONTROL OFFICER IF ANY INFORMATION PROVIDED, EXISTING OR PROPOSED, IS BELIEVED TO BE IN ERROR.
- ALL TREES WITHIN CLEARING LIMIT THAT ARE NOT SHOWN AS DEMOLISHED SHALL REMAIN.
- CONTRACTOR SHALL BE RESPONSIBLE FOR THE DISPOSAL OF ALL DEMOLISHED AND CLEARED MATERIALS.
- EROSION CONTROL MEASURES ARE NOT LIMITED TO THE ITEMS SHOWN ON THIS PLAN. EROSION CONTROL MEASURES SHOWN ON THIS PLAN REPRESENT THE BEST MANAGEMENT PRACTICES (BMP) AVAILABLE TO THE CONTRACTOR. ACTUAL ON-SITE IMPLEMENTATION OF BMPs WILL BE DICTATED BY ON-SITE CONDITIONS. SPECIFIC EROSION CONTROL MEASURES IMPLEMENTED SHALL BE AS IDENTIFIED AND NOTED BY THE CERTIFIED EROSION AND SEDIMENT CONTROL LEAD (CESCL) AND THE CONTRACTOR QUALITY CONTROL OFFICER.
- SEE SHEETS CD-501 AND CD-502 FOR ADDITIONAL EROSION AND SEDIMENT CONTROL NOTES AND DETAILS.
- CONTRACTOR SHALL DESIGNATE A WSDOE CERTIFIED EROSION AND SEDIMENT CONTROL LEAD WHO SHALL HAVE THE RESPONSIBILITIES NOTED WITHIN WSDOE BMP C160 AND WHO SHALL IMPLEMENT PROVISION OF THE NPDES. SEE TESC NOTE 2 ON SHEET CD-501.
- CONTRACTOR SHALL PROVIDE A TRAFFIC CONTROL PLAN. TRAFFIC CONTROL PLAN SHALL BE APPROVED BY VETERANS AFFAIRS PRIOR TO CONSTRUCTION.
- THE INTENT OF THE DEMOLITION PLAN IS TO REMOVE THOSE ITEMS NECESSARY TO CONSTRUCT PROPOSED IMPROVEMENTS.
- CONTRACTOR SHALL PROVIDE MINIMUM 2 WEEK ADVANCE NOTICE OF ANY ROAD CLOSURE. COORDINATE ALL CLOSURES WITH VETERANS AFFAIRS POLICE AND UNION REPRESENTATIVE.
- CONTRACTOR SHALL PROVIDE ADEQUATE MEASURES TO PREVENT THE TRANSPORT OF SEDIMENT ONTO PAVED ROADS FROM MOTOR VEHICLES LEAVING THE PROJECT SITE. DEPOSITED SEDIMENT SHALL BE CLEANED EVERY DAY BY SHOVELING OR SWEEPING. WATER CLEANING SHALL ONLY BE DONE AFTER THE AREA HAS BEEN SHOVELED OUT OR SWEEPED.

DEMO./EROSION CONTROL LEGEND

- CLEARING/WORK LIMITS
- SOIL STOCKPILE AREA
- CONSTRUCTION ENTRANCE CD-502
- DEMOLISH CONCRETE/SIDEWALK TO NEAREST JOINT
- INLET SEDIMENT PROTECTION CD-502
- SAWCUT LINE
- DEMOLISH/ABANDON EXISTING UTILITY
- SILT FENCE CD-502

SHEET KEYNOTES

- PROVIDE INLET SEDIMENT PROTECTION CD-502
- CONSTRUCTION ENTRANCE CD-502
- CONTRACTOR STAGING AREA
- PROTECT EXISTING SANITARY SEWER MANHOLE AND ASSOCIATED PIPING
- REMOVE AND RELOCATE EXISTING SIGN. COORDINATE NEW LOCATION WITH VETERANS AFFAIRS FACILITIES DEPARTMENT
- REMOVE EXISTING WATER/IRRIGATION STRUCTURE AND ASSOCIATED APPURTENANCES
- PROTECT EXISTING POWER VAULT AND ASSOCIATED APPURTENANCES
- PROTECT EXISTING TELECOMMUNICATION STRUCTURE AND ASSOCIATED APPURTENANCES
- DEMOLISH EXISTING CURB TO NEAREST JOINT
- DEMOLISH EXISTING CONCRETE/SIDEWALK TO NEAREST JOINT
- DEMOLISH EXISTING TREE/SHRUB
- DEMOLISH EXISTING LIGHT POLE.
- PROVIDE NEAT LINE SAWCUT 1' FROM FACE OF CURB AND DEMOLISH ASPHALT
- REMOVE EXISTING TRAFFIC ARROW
- PROTECT EXISTING STEAM STRUCTURE AND ASSOCIATED APPURTENANCES.
- REMOVE EXISTING TOTEM POLE. SALVAGE FOR RE-USE
- REMOVE AND RELOCATE EXISTING BENCH. COORDINATE NEW LOCATION WITH VETERANS AFFAIRS FACILITIES DEPARTMENT.
- DEMOLISH EXISTING UTILITY STRUCTURE AND ASSOCIATED APPURTENANCES
- PROTECT EXISTING POST INDICATOR VALVE AND ASSOCIATED APPURTENANCES
- TERMINATE WATER SERVICE AND DEMOLISH EXISTING WATER METER
- PROTECT EXISTING SIGN
- PROTECT EXISTING STEAM LINE
- PROTECT EXISTING SANITARY SEWER LINE
- PROTECT EXISTING WHEEL STOP
- TERMINATE WATER SERVICE AND DEMOLISH EXISTING SPIGOT
- DEMOLISH EXISTING CANOPY AND SLAB INCLUDING FOUNDATION, FOOTINGS AND UNDERGROUND COMPONENTS.
- PROTECT EXISTING LIGHT POLE AND ASSOCIATED APPURTENANCES
- PROTECT EXISTING TELECOMMUNICATION LINE AND ASSOCIATED APPURTENANCES
- DEMOLISH EXISTING CABLE STRUCTURE AND ASSOCIATED APPURTENANCES
- DEMOLISH EXISTING ELECTRICAL STRUCTURE AND ASSOCIATED APPURTENANCES
- REMOVE AND RELOCATE EXISTING BARBEQUE. COORDINATE NEW LOCATION WITH VETERANS AFFAIRS FACILITIES DEPARTMENT
- PROTECT EXISTING POWER/ELECTRICAL LINE
- SEDIMENT/STORAGE POND FOR DRILL MUD. SIZE AND LOCATION TO BE DETERMINED BY CONTRACTOR
- DEMOLISH EXISTING STEAM STRUCTURE AND ASSOCIATED APPURTENANCES
- PROTECT EXISTING TREE/SHRUB
- SILT FENCE CD-502



three inches = one foot
 one and one half inches = one foot
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95% DESIGN DOCUMENTS - NOT FOR CONSTRUCTION

| | | | | | | | |
|--|--|--|--|---|---|---|---|
| CONSULTANT: AHBL TACOMA, SEATTLE 1000 1st Ave, Tacoma, WA 98402 (253) 382-1000 | | PRIME: engenuity systems LLC 40 BROADWAY, SUITE 100 TACOMA, WA 98402 PH (253) 292-0387 FX (253) 292-0388 www.enginitysys.com | | Drawing Title: BUILDING 17 GROUND SOURCE FIELD TESC AND DEMOLITION PLAN Approved Project Director: | Project Title: GROUND BASED HEAT PUMP SYSTEM Location: VA AMERICAN LAKE DARRIN - TACOMA, WA Date: 05-28-11 Checked: JRC Drawn: MFWAJS | Project Number: 663A4-10-351 Building Number: 23.17 Drawing Number: CD-202 Day of XXXX | Office of Construction and Facilities Management |
|--|--|--|--|---|---|---|---|

TESC NOTES

THE FOLLOWING EROSION AND SEDIMENTATION CONTROL NOTES APPLY TO ALL CONSTRUCTION SITE ACTIVITIES AT ALL TIMES, UNLESS OTHERWISE SPECIFIED ON THESE PLANS:

- APPROVAL OF THIS EROSION AND SEDIMENTATION CONTROL PLAN DOES NOT CONSTITUTE AN ACCEPTANCE OF THE PERMANENT ROAD OR DRAINAGE DESIGN.
- THE CONTRACTOR SHALL BE RESPONSIBLE AT ALL TIMES FOR PREVENTING SILT-LADEN RUNOFF FROM DISCHARGING FROM THE PROJECT SITE. FAILURE BY THE CONTRACTOR CAN RESULT IN A FINE. THE DESIGNATED CESCL MUST BE AVAILABLE FOR CONTACT BY TELEPHONE ON A 24 HOUR BASIS THROUGHOUT CONSTRUCTION AND UNTIL THE PROJECT HAS BEEN COMPLETED AND ACCEPTED BY THE DEPARTMENT OF VETERANS AFFAIRS.
- THE IMPLEMENTATION OF THESE ESC PLANS AND THE CONSTRUCTION, MAINTENANCE, REPLACEMENT AND UPGRADING OF THESE FACILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR FROM THE BEGINNING OF CONSTRUCTION UNTIL ALL CONSTRUCTION IS COMPLETED AND ACCEPTED BY THE DEPARTMENT OF VETERANS AFFAIRS AND THE SITE IS STABILIZED.
- PRIOR TO BEGINNING ANY WORK ON THE PROJECT SITE, A PRECONSTRUCTION CONFERENCE MUST BE HELD, AND SHALL BE ATTENDED BY THE CONTRACTOR(S), SURVEYOR, ENGINEER, CESCL AND THE DEPARTMENT OF VETERANS AFFAIRS.
- THE BOUNDARIES OF THE CLEARING LIMITS SHOWN ON THIS PLAN SHALL BE CLEARLY FLAGGED AND INSPECTED BY THE DEPARTMENT OF VETERANS AFFAIRS PRIOR TO ANY CLEARING OR CONSTRUCTION TAKING PLACE. DURING CONSTRUCTION, NO DISTURBANCE BEYOND THE FLAGGED CLEARING LIMITS SHALL BE PERMITTED WITHOUT PRIOR APPROVAL FROM THE DEPARTMENT OF VETERANS AFFAIRS. THE FLAGGING SHALL BE MAINTAINED BY THE CONTRACTOR UNTIL ALL CONSTRUCTION IS APPROVED BY THE DEPARTMENT OF VETERANS AFFAIRS.
- ALL ROCKED CONSTRUCTION ENTRANCES SHOWN ON THIS PLAN SHALL BE INSTALLED PRIOR TO BEGINNING CONSTRUCTION. IN ADDITION, EQUIPMENT FOR THE CLEANING OF ROADWAYS SHALL BE AVAILABLE AT ALL TIMES DURING CONSTRUCTION.
- THE EROSION AND SEDIMENTATION CONTROL FACILITIES SHOWN ON THIS PLAN ARE TO BE CONSIDERED ADEQUATE BASIC REQUIREMENTS FOR THE ANTICIPATED SITE CONDITIONS. DURING CONSTRUCTION, DEVIATIONS FROM THIS PLAN MAY BE NECESSARY IN ORDER TO MAINTAIN WATER QUALITY. MINOR DEPARTURES FROM THIS PLAN ARE PERMITTED SUBJECT TO THE APPROVAL OF THE CESCL. HOWEVER, EXCEPT FOR EMERGENCY SITUATIONS, ALL OTHER DEVIATIONS FROM THIS PLAN MUST BE DESIGNED BY THE PROJECT ENGINEER AND APPROVED BY THE CONTRACTED QUALITY CONTROL OFFICER PRIOR TO INSTALLATION.
- ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSPECTED BY THE CONTRACTOR ON A FREQUENT BASIS AND IMMEDIATELY AFTER EACH RAINFALL, AND MAINTAINED AS NECESSARY TO INSURE THEIR CONTINUED FUNCTIONING. ALL SEDIMENT MUST BE REMOVED FROM SILT FENCES, STRAW BALES, ETC. PRIOR TO THE SEDIMENT REACHING 1/2 ITS MAXIMUM POTENTIAL DEPTH.
- AT NO TIME SHALL CONCRETE, CONCRETE BY-PRODUCTS, VEHICLE FLUIDS, PAINT, CHEMICALS, OR OTHER POLLUTING MATTER BE PERMITTED TO DISCHARGE TO THE TEMPORARY OR PERMANENT DRAINAGE SYSTEM, OR TO DISCHARGE FROM THE PROJECT SITE.
- EROSION CONTROL MEASURES SHALL BE PROVIDED IMMEDIATELY AT THE COMMENCEMENT OF CONSTRUCTION OR AS ADDITIONALLY REQUIRED BY THE CESCL.
- ALL EROSION CONTROL MEASURES SHALL CONFORM TO THE APPLICABLE STANDARDS IN THE WASHINGTON STATE DEPARTMENT OF ECOLOGY STORMWATER MANAGEMENT MANUAL, FOR WESTERN WASHINGTON, FEBRUARY 2005 EDITION.
- ALL DISTURBED AREAS SHALL BE STABILIZED BEFORE THE END OF CONSTRUCTION.
- PROVIDE TEMPORARY HYDROSEEDING MEASURES TO REDUCE EROSION AND SEDIMENTATION. SEE HYDROSEEDING NOTES.
- DURING THE TIME PERIOD OF OCTOBER 1 THROUGH APRIL 30, AND AT OTHER TIMES OF THE YEAR WHEN THERE ARE EXTENDED PERIODS OF INCLEMENT WEATHER, ALL PROJECT DISTURBED SOIL AREAS THAT ARE TO BE LEFT UNWORKED FOR MORE THAN 48 HOURS SHALL BE COVERED BY MULCH, SEEDING, OR PLASTIC COVERING. SEE MULCHING NOTES, HYDROSEEDING NOTES AND PLASTIC COVERING NOTES.

SOIL STOCKPILE NOTES

- STOCKPILES SHALL BE STABILIZED (WITH PLASTIC COVERING OR OTHER APPROVED DEVICE) DAILY BETWEEN OCTOBER 1 AND APRIL 30.
- IN ANY SEASON, SEDIMENT LEACHING FROM STOCK PILES MUST BE PREVENTED.
- TOPSOIL SHALL NOT BE PLACED WHILE IN A FROZEN OR MUDDY CONDITION; WHEN THE SUBGRADE IS EXCESSIVELY WET, OR WHEN CONDITIONS EXIST THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING OR PROPOSED SODDING OR SEEDING.
- PREVIOUSLY ESTABLISHED GRADES ON THE AREAS TO BE TOPSOILED SHALL BE MAINTAINED ACCORDING TO THE APPROVED PLAN.

MULCHING NOTES

- MULCH MATERIALS USED SHALL BE HAY OR STRAW, AND SHALL BE 2 TO 3 INCHES THICK; 5 BALES PER 1000 SF OR 2 TO 3 TONS/ACRE.
- MULCH SHOULD BE USED ON DISTURBED AREAS THAT REQUIRE COVER MEASURES FOR LESS THAN 30 DAYS.
- MULCH SHOULD BE USED AS A COVER FOR SEED DURING THE WET SEASON AND DURING THE HOT SUMMER MONTHS.
- MULCH SHOULD BE USED DURING THE WET SEASON ON SLOPES STEEPER THAN 3H:1V WITH MORE THAN 10 FEET OF VERTICAL RELIEF.
- MULCH MAY BE APPLIED AT ANY TIME OF THE YEAR AND MUST BE REFRESHED PERIODICALLY.
- THE THICKNESS OF THE MULCH MUST BE MAINTAINED.
- ANY AREAS THAT EXPERIENCE EROSION SHALL BE RE-MULCHED AND/OR PROTECTED WITH A NET OR BLANKET. IF THE EROSION PROBLEM IS DRAINAGE RELATED, THEN THE PROBLEM SHALL BE FIXED AND THE ERODED AREA RE-MULCHED.

PLASTIC COVERING NOTES

- PLASTIC SLOPE SHALL BE INSTALLED AS FOLLOWS:
 - RUN PLASTIC UP AND DOWN SLOPE, NOT ACROSS SLOPE.
 - PLASTIC MAY BE INSTALLED PERPENDICULAR TO A SLOPE IF THE SLOPE LENGTH IS LESS THAN 10 FEET.
 - MINIMUM OF 12-INCH OVERLAP AT SEAMS.
 - ON LONG OR WIDE SLOPES, OR SLOPES SUBJECT TO WIND, ALL SEAMS SHOULD BE TAPED.
 - PLACE PLASTIC INTO A SMALL (12-INCH WIDE BY 6-INCH DEEP) SLOT TRENCH AT THE TOP OF THE SLOPE AND BACKFILL WITH WASHED ROCK TO KEEP WATER FROM FLOWING UNDERNEATH.
 - PLACE SAND FILLED BURLAP OR GEOTEXTILE BAGS EVERY 3 TO 6 FEET ALONG SEAMS AND POUND A WOODEN STAKE THROUGH EACH TO HOLD THEM IN PLACE.
 - INSPECT PLASTIC FOR RIPS, TEARS, AND OPEN SEAMS REGULARLY AND REPAIR IMMEDIATELY. THIS PREVENTS HIGH VELOCITY RUNOFF FROM CONTACTING BARE SOIL, WHICH CAUSES EXTREME EROSION.
 - SANDBAGS MAY BE LOWERED INTO PLACE, TIED TO ROPES. ALL SANDBAGS MUST BE STAKED IN PLACE.
- PLASTIC SHEETING SHALL HAVE A MINIMUM THICKNESS OF 6 MILLIMETERS.
- IF EROSION AT THE TOE OF A SLOPE IS LIKELY, A GRAVEL BERM, RIPRAP, OR OTHER SUITABLE PROTECTION SHALL BE INSTALLED AT THE TOE OF THE SLOPE IN ORDER TO REDUCE THE VELOCITY OF RUNOFF.
- TORN SHEETS MUST BE REPLACED AND OPEN SEAMS REPAIRED.
- IF THE PLASTIC BEGINS TO DETERIORATE DUE TO ULTRAVIOLET RADIATION, IT MUST BE COMPLETELY REMOVED AND REPLACED.
- WHEN THE PLASTIC AND SAND BAGS ARE NO LONGER REQUIRED, THEY SHALL BE COMPLETELY REMOVED AND PROPERLY DISPOSED.

HYDROSEEDING NOTES

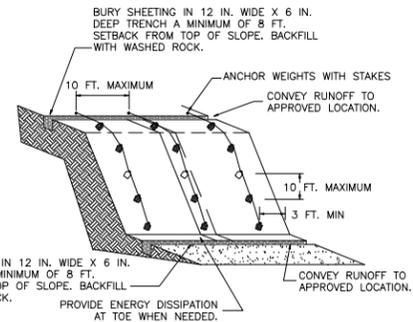
- SEEDING SHALL BE USED THROUGHOUT THE PROJECT ON DISTURBED AREAS THAT HAVE REACHED FINAL GRADE OR THAT WILL REMAIN UNWORKED FOR MORE THAN 30 DAYS.
- MULCH IS REQUIRED AT ALL TIMES BECAUSE IT PROTECTS SEEDS FROM HEAT, MOISTURE LOSS, AND TRANSPORT DUE TO RUNOFF.
- CHANNELS THAT WILL BE VEGETATED SHALL BE INSTALLED BEFORE MAJOR EARTHWORK AND HYDROSEEDED WITH A BONDED FIBER MIX (I.E., 75 PERCENT COVER) BEFORE WATER IS ALLOWED TO FLOW IN THE DITCH. WITH CHANNELS THAT WILL HAVE HIGH FLOWS, EROSION CONTROL BLANKETS SHOULD BE INSTALLED OVER THE HYDROSEED. IF VEGETATION CANNOT BE ESTABLISHED FROM SEED BEFORE WATER IS ALLOWED IN THE DITCH, SOD SHALL BE INSTALLED IN THE BOTTOM OF THE DITCH OVER HYDROMULCH AND BLANKETS.
- ALL DISTURBED AREAS SHALL BE REVIEWED IN LATE AUGUST TO EARLY SEPTEMBER AND ALL SEEDING SHALL BE COMPLETED BY THE END OF SEPTEMBER.
- AT FINAL SITE STABILIZATION, ALL DISTURBED AREAS, NOT OTHERWISE VEGETATED OR STABILIZED, SHALL BE SEEDED AND MULCHED. FINAL STABILIZATION MEANS THE COMPLETION OF ALL SOIL DISTURBING ACTIVITIES AT THE SITE AND THE ESTABLISHMENT OF A PERMANENT VEGETATIVE COVER, OR EQUIVALENT PERMANENT STABILIZATION MEASURES (SUCH AS PAVEMENT, RIPRAP, GABIONS, OR GEOTEXTILES) WHICH WILL PREVENT EROSION.
- THE OPTIMUM SEEDING WINDOWS FOR WESTERN WASHINGTON ARE APRIL 1 THROUGH JUNE 30 AND SEPTEMBER 1 THROUGH OCTOBER 1. SEEDING THAT OCCURS BETWEEN JULY 1 AND AUGUST 30 WILL REQUIRE A 75 PERCENT GRASS COVER IS ESTABLISHED. SEEDING THAT OCCURS BETWEEN OCTOBER 1 AND MARCH 30 WILL REQUIRE A MULCH OR PLASTIC COVER UNTIL 75 PERCENT GRASS COVER IS ESTABLISHED.
- TO PREVENT SEED FROM BEING WASHED AWAY, CONFIRM THAT ALL REQUIRED SURFACE WATER CONTROL MEASURES HAVE BEEN INSTALLED.
- THE SEEDBED SHALL BE FIRM AND ROUGH. ALL SOIL SHALL BE ROUGHENED, NO MATTER THE SLOPE. IF CONSTRUCTION IS REQUIRED FOR ENGINEERING PURPOSES, SLOPES MUST BE TRACK WALKED BEFORE SEEDING. BACKBLADING OR SMOOTHING OF SLOPES GREATER THAN 4:1 IS NOT ALLOWED IF THEY ARE TO BE SEEDED.
- 10-4-6 N-P-K (NITROGEN-PHOSPHORUS-POTASSIUM) FERTILIZER CAN BE USED AT A RATE OF 90 POUNDS/ACRE. SLOW RELEASE FERTILIZERS SHALL BE USED. FERTILIZER SHALL NOT BE ADDED TO THE HYDROMULCH MACHINE AND AGITATED MORE THAN 20 MINUTES BEFORE IT IS USED.
- HYDROSEED APPLICATIONS SHALL INCLUDE A MINIMUM OF 1,500 POUNDS/ACRE OF MULCH WITH 3 PERCENT TACKIFIER. MULCH MAY CONSIST OF 100 PERCENT COTTONSEED MEAL; FIBERS MADE OF WOOD; RECYCLED CELLULOSE; HEMP AND KENAF; COMPOST; OR BLENDS OF THESE. TACKIFIER SHALL BE PLANT-BASED, SUCH AS GUAR OR ALPHA PLANTAGO, OR CHEMICAL BASED, SUCH AS POLYACRYLAMIDE OR POLYMERS. ANY MULCH OR TACKIFIER USED SHALL BE INSTALLED PER MANUFACTURER'S INSTRUCTIONS. SEED AND FERTILIZER SHALL BE ADDED AT TIME OF APPLICATION.
- MULCH IS ALWAYS REQUIRED FOR SEEDING. MULCH CAN BE APPLIED ON TOP OF THE SEED OR SIMULTANEOUSLY BY HYDROSEEDING. SEE MULCHING NOTES.
- SEED MIXES SHALL BE APPLIED AT 120 POUNDS/ACRE.
- TEMPORARY EROSION CONTROL SEED MIX SHALL ADHERE TO THE FOLLOWING MIXTURE:

| | % WEIGHT | % PURITY | % GERMINATION |
|--------------------------------|----------|----------|---------------|
| CHEWINGS OR ANNUAL BLUE GRASS | 40% | 98% | 90% |
| PERENNIAL RYE | 50% | 98% | 90% |
| RED TOP OR COLONIAL BENT GRASS | 5% | 92% | 85% |
| WHITE DUTCH CLOVER | 5% | 98% | 90% |
- LANDSCAPING SEED MIX SHALL ADHERE TO THE FOLLOWING MIXTURE:

| | % WEIGHT | % PURITY | % GERMINATION |
|------------------------------|----------|----------|---------------|
| PERENNIAL RYE BLEND | 70% | 98% | 90% |
| CHEWING AND RED FESCUE BLEND | 30% | 98% | 90% |
- ANY SEEDED AREAS THAT FAIL TO ACHIEVE AT LEAST 80 PERCENT COVER (100 PERCENT COVER FOR AREAS THAT RECEIVE SHEET OR CONCENTRATED FLOWS) SHALL BE RESEEDED. IF RESEEDING IS INEFFECTIVE, AN ALTERNATE METHOD, SUCH AS SODDING, MULCHING, OR NETS/BLANKETS SHALL BE USED.
- AFTER ADEQUATE COVER IS ACHIEVED, ANY AREAS THAT EXPERIENCE EROSION SHALL BE RESEEDED AND PROTECTED BY MULCH. IF THE EROSION PROBLEM IS DRAINAGE RELATED, THE PROBLEM SHALL BE FIXED AND THE ERODED AREA RESEEDED AND PROTECTED BY MULCH.
- SEEDED AREAS SHALL BE SUPPLIED WITH ADEQUATE MOISTURE, BUT NOT WATERED TO THE EXTENT THAT IT CAUSES RUNOFF.

CONSTRUCTION SEQUENCE

- ARRANGE AND ATTEND PRE-CONSTRUCTION MEETING WITH DEPARTMENT OF VETERANS AFFAIRS, CONTRACTOR, CESCL AND ENGINEER.
- POST NOTICE OF CONSTRUCTION ACTIVITY SIGN WITH NAME AND PHONE NUMBER OF CESCL.
- FLAG OR FENCE CLEARING LIMITS.
- PROVIDE PERIMETER PROTECTION (SILT FENCE, ETC.) WHERE SHOWN ON ESC PLANS AND/OR REQUIRED BY CESCL.
- GRADE AND PROVIDE CONSTRUCTION ENTRANCES.
- CONSTRUCT SURFACE WATER CONTROLS SIMULTANEOUSLY WITH CLEARING AND GRUBBING FOR PROJECT DEVELOPMENT.
- MAINTAIN EROSION CONTROL MEASURES IN ACCORDANCE WITH DEPARTMENT OF VETERANS AFFAIRS GUIDELINES OR MANUFACTURER'S RECOMMENDATIONS.
- RELOCATE SURFACE WATER CONTROLS AND EROSION CONTROL MEASURES OR INSTALL NEW MEASURES SO THAT AS SITE CONDITIONS CHANGE, THE EROSION AND SEDIMENT CONTROL IS ALWAYS IN ACCORDANCE WITH DEPARTMENT OF VETERANS AFFAIRS EROSION AND SEDIMENT CONTROL STANDARDS.
- ANY AREAS OF EXPOSED SOILS THAT WILL REMAIN UNWORKED FOR MORE THAN SEVEN DAYS DURING THE WET SEASON SHALL BE IMMEDIATELY STABILIZED IN ACCORDANCE WITH THE DEPARTMENT OF VETERANS AFFAIRS EROSION AND SEDIMENT CONTROL REQUIREMENTS.
- ROUGH GRADE SITE.
- CONSTRUCT GROUND BASED HEAT PUMP SYSTEM
- CONSTRUCT STORM SYSTEM.
- PAVE SITE AS SHOWN ON PLANS.
- STABILIZE ALL AREAS THAT REACH FINAL GRADE WITHIN SEVEN DAYS.
- SEED OR SOD ANY AREAS TO REMAIN UNWORKED FOR MORE THAN 30 DAYS.
- UPON SUBSTANTIAL COMPLETION OF THE PROJECT, ALL DISTURBED AREAS MUST BE STABILIZED AND BEST MANAGEMENT PRACTICES REMOVED UPON APPROVAL BY THE DEPARTMENT OF VETERANS AFFAIRS.



NOTES

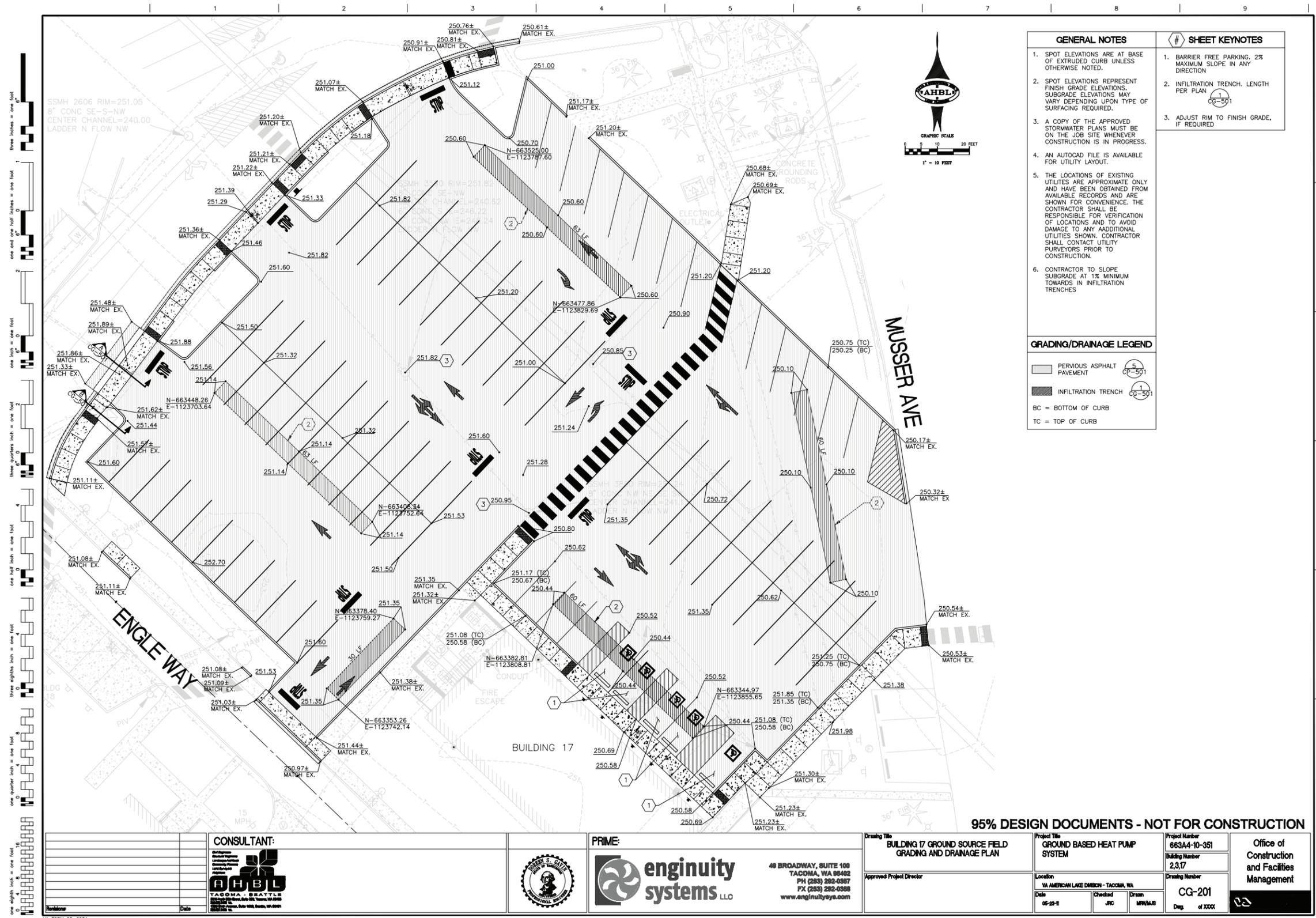
- SANDBAGS, OR EQUIVALENT MAY BE USED TO WEIGHT PLASTIC SHEETING.
- SEAMS BETWEEN SHEETS MUST OVERLAP A MINIMUM OF 12 IN. AND BE WEIGHTED OR TAPED.
- PLASTIC SHEETING SHALL HAVE A MINIMUM THICKNESS OF 6 MIL.
- DUE TO RAPID RUNOFF CAUSED BY PLASTIC SHEETING, THIS METHOD SHALL NOT BE USED UPSLOPE OF AREAS THAT MIGHT BE ADVERSELY IMPACTED BY CONCENTRATED RUNOFF.
- CONSTRUCT BERM OR SWALE AT TOP OF SLOPE AS DIRECTED BY THE CESCL.
- CONSTRUCT DITCH AT BASE OF SLOPE AS RELATED BY THE CESCL. DISCHARGE TO APPROVED LOCATION.

1 SOIL STOCKPILE NOT TO SCALE

Scale indicators on the left margin: three inches = one foot, one and one half inches = one foot, one inch = one foot, three quarters inch = one foot, one half inch = one foot, three eighths inch = one foot, one quarter inch = one foot, one eighth inch = one foot.

95% DESIGN DOCUMENTS - NOT FOR CONSTRUCTION

| | | | | | |
|--|--|---|--|---|---|
| <p>CONSULTANT:</p> <p>OHBL TACOMA, SEATTLE</p> | <p>PRIME:</p> <p>engenuity systems LLC 40 BROADWAY, SUITE 100 TACOMA, WA 98402 PH (253) 292-0387 FX (253) 292-0388 www.enginitysys.com</p> | <p>Drawing Title</p> <p>TESC NOTES AND DETAILS</p> | <p>Project Title</p> <p>GROUND BASED HEAT PUMP SYSTEM</p> | <p>Project Number</p> <p>663A4-10-351</p> | <p>Office of Construction and Facilities Management</p> |
| | | <p>Approved Project Director</p> | <p>Location</p> <p>VA AMERICAN LAKE DAVISON - TACOMA, WA</p> | <p>Drawing Number</p> <p>CD-501</p> | |
| <p>Date</p> <p>05-28-11</p> | <p>Checked</p> <p>JRC</p> | <p>Drawn</p> <p>MFWNAS</p> | <p>Day</p> <p>of XXXX</p> | | |



GENERAL NOTES

- SPOT ELEVATIONS ARE AT BASE OF EXTRUDED CURB UNLESS OTHERWISE NOTED.
- SPOT ELEVATIONS REPRESENT FINISH GRADE ELEVATIONS. SUBGRADE ELEVATIONS MAY VARY DEPENDING UPON TYPE OF SURFACING REQUIRED.
- A COPY OF THE APPROVED STORMWATER PLANS MUST BE ON THE JOB SITE WHENEVER CONSTRUCTION IS IN PROGRESS.
- AN AUTOCAD FILE IS AVAILABLE FOR UTILITY LAYOUT.
- THE LOCATIONS OF EXISTING UTILITIES ARE APPROXIMATE ONLY AND HAVE BEEN OBTAINED FROM AVAILABLE RECORDS AND ARE SHOWN FOR CONVENIENCE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF LOCATIONS AND TO AVOID DAMAGE TO ANY ADDITIONAL UTILITIES SHOWN. CONTRACTOR SHALL CONTACT UTILITY PURVEYORS PRIOR TO CONSTRUCTION.
- CONTRACTOR TO SLOPE SUBGRADE AT 1% MINIMUM TOWARDS IN INFILTRATION TRENCHES

SHEET KEYNOTES

- BARRIER FREE PARKING. 2% MAXIMUM SLOPE IN ANY DIRECTION
- INFILTRATION TRENCH. LENGTH PER PLAN
- ADJUST RIM TO FINISH GRADE, IF REQUIRED

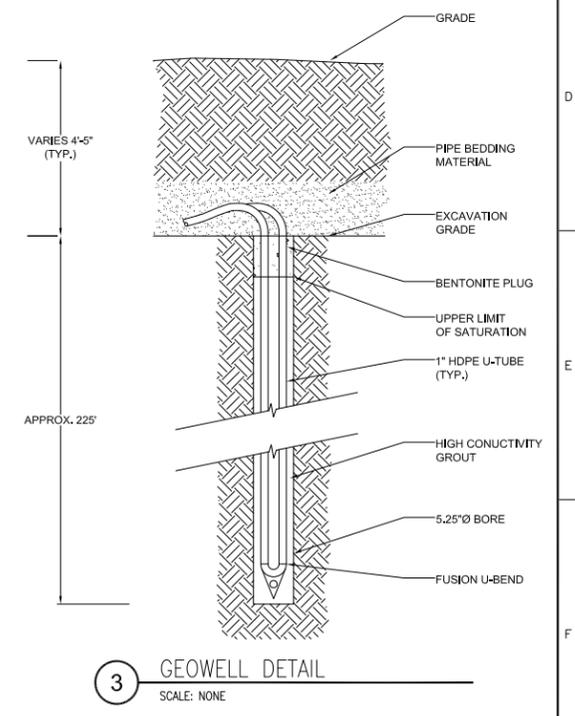
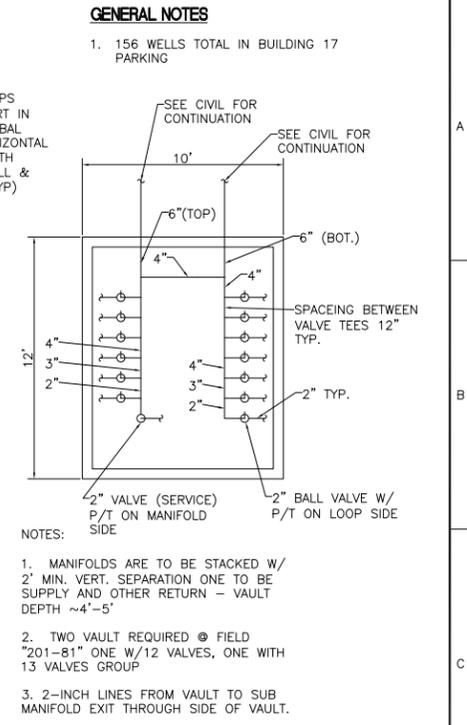
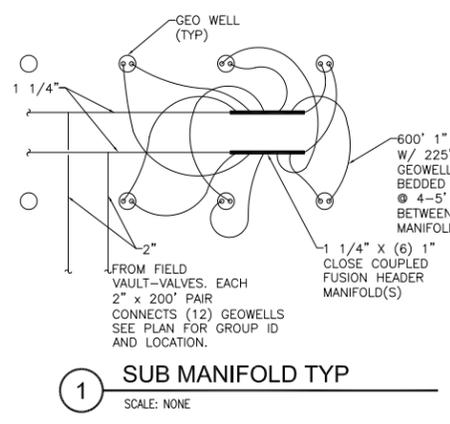
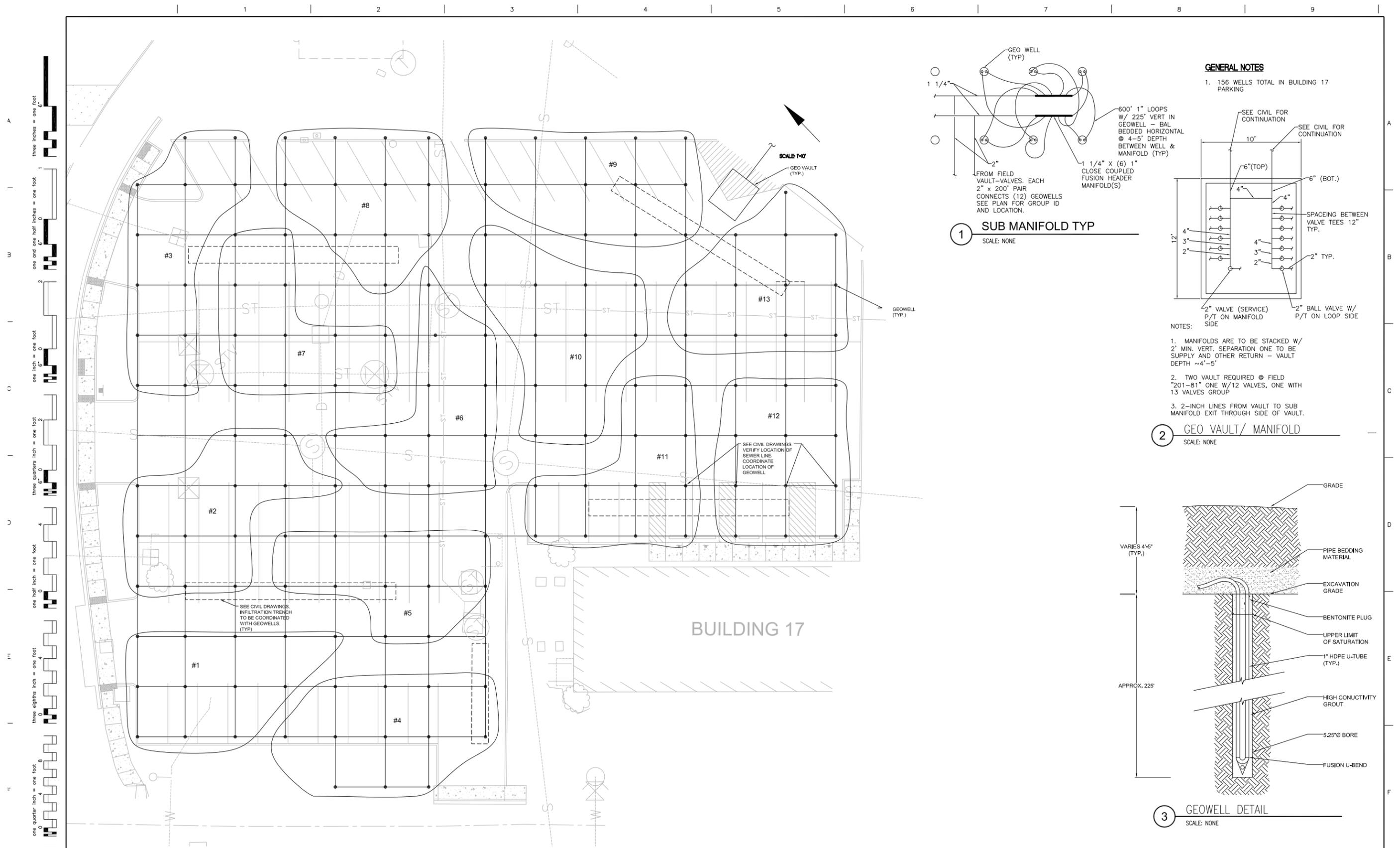
GRADING/DRAINAGE LEGEND

- PEROUS ASPHALT PAVEMENT CP-501
- INFILTRATION TRENCH CG-501
- BC = BOTTOM OF CURB
- TC = TOP OF CURB

95% DESIGN DOCUMENTS - NOT FOR CONSTRUCTION

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|---|--|---|--|---|--|--|--|---|--|
| CONSULTANT: AHBL TACOMA, SEATTLE 1500 15th Avenue, Suite 100, Tacoma, WA 98402 Phone: (253) 292-0387 Fax: (253) 292-0388 www.ahbl.com | | PRIME: engenuity systems LLC 49 BROADWAY, SUITE 100 TACOMA, WA 98402 PH (253) 292-0387 FX (253) 292-0388 www.engenuitysys.com | | Drawing Title: BUILDING 17 GROUND SOURCE FIELD GRADING AND DRAINAGE PLAN Approved Project Director: | | Project Title: GROUND BASED HEAT PUMP SYSTEM Project Number: 663A4-10-351 Building Number: 23.17 Location: VA AMERICAN LAKE DAMSON - TACOMA, WA Drawing Number: CG-201 Date: 05-28-11 Checked: JRC Drawn: MFW/MS Day: of XXXX | | Office of Construction and Facilities Management | |
|---|--|---|--|---|--|--|--|---|--|

VA FORM 08-6231



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 one eighth inch = one foot
 one eighth inch = one foot

95% DESIGN DOCUMENTS - NOT FOR CONSTRUCTION

| | | | | | | | | |
|-------------------|---|---|---|---|--|---|---|---------------------|
| Revisions Date | CONSULTANT: KLINGELE & ASSOCIATES 5106 West Viola Yakima, Wa 98908 (509) 966-5300 Fax (509) 966-8002 | | PRIME: enginuity systems LLC 49 BROADWAY, SUITE 100 TACOMA, WA 98402 PH (253) 292-0357 FX (253) 292-0358 www.enginuitysys.com | Drawing Title GEOTHERMAL WELL PLAN BUILDING 17 | Project Title GROUND BASED HEAT PUMP SYSTEM | Project Number 663A4-10-351 Building Number 23.17.81.201 Drawing Number MP171 | Office of Construction and Facilities Management | |
| | Approved Project Director | Location VA AMERICAN LAKE DMSION - TACOMA, WA | Date 05-28-2011 | Checked DDK | Drawn DDK | Date 05-28-2011 | Checked DDK | Drawn DDK |

