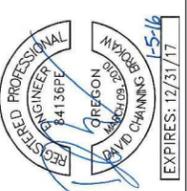


CITY OF TIGARD

SIDEWALK INFILL

SW NORTH DAKOTA STREET & SW 95TH AVENUE

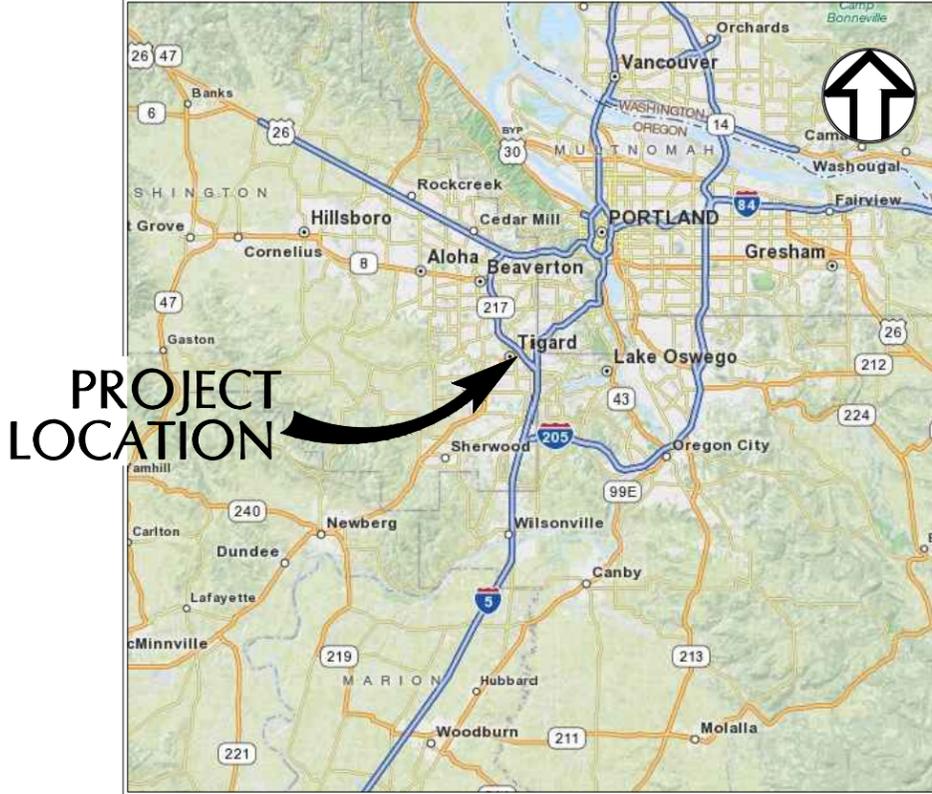
JANUARY 2016



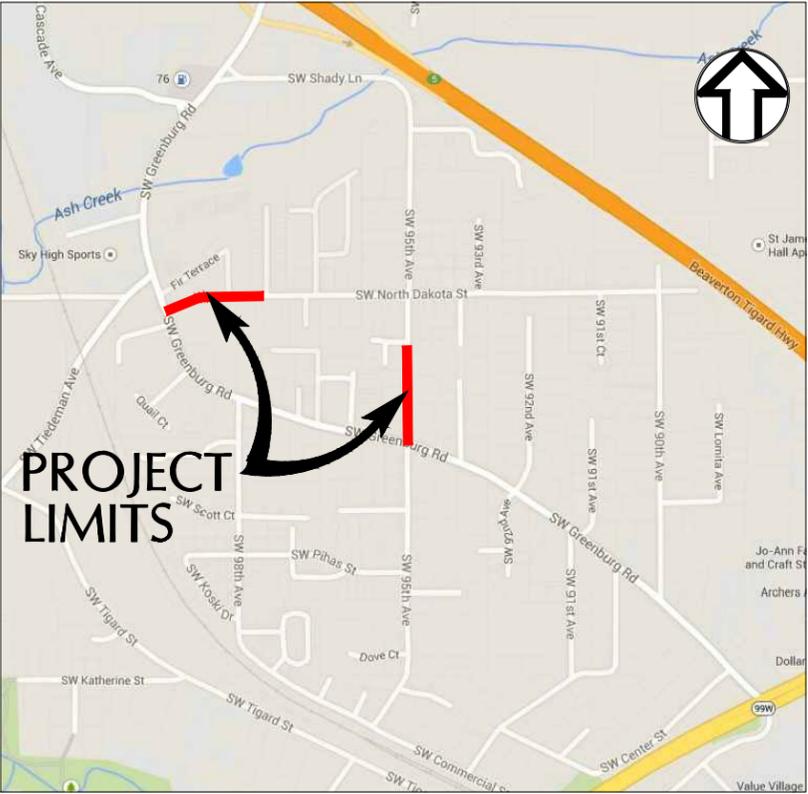
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 CHECKED BY: WS

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 1" ONE INCH ADJUST IF NOT ONE INCH SCALE ACCORDINGLY



LOCATION MAP
NOT TO SCALE



PROJECT SITE MAP
NOT TO SCALE

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COVER

wallis engineering
 PROJECT NO: 1388A
 DATE: 01/2016

CITY OF TIGARD
 SIDEWALK INFILL
 SW NORTH DAKOTA STREET
 & SW 95TH AVENUE

GENERAL CONSTRUCTION NOTES:

- ALL PUBLIC IMPROVEMENTS SHALL BE CONSTRUCTED PER THE APPLICABLE SECTIONS OF THE CITY OF TIGARD PUBLIC IMPROVEMENT DESIGN STANDARDS, EXCEPT AS MODIFIED HEREIN, THE 2008 APWA OREGON STANDARD SPECIFICATIONS FOR CONSTRUCTION AND CLEAN WATER SERVICES DISTRICT'S DESIGN AND CONSTRUCTION STANDARDS (RESOLUTION AND ORDER 2007-20).
- EXISTING UTILITY LOCATIONS ARE APPROXIMATE ONLY. IN ORDER TO PROTECT EXISTING UNDERGROUND UTILITIES, CONTRACTORS PERFORMING WORK SHOWN ON THESE PLANS MUST NOTIFY UTILITIES AND PUBLIC AGENCIES AT LEAST 48 BUSINESS HOURS IN ADVANCE OF, AND NO MORE THAN 10 BUSINESS DAYS BEFORE, BEGINNING EXCAVATION, IN ACCORDANCE WITH THE PROVISIONS OF OAR 952-001-0090. LIMITS OF WORK SHALL BE PRE-MARKED FOR THE UTILITY LOCATORS. POTHOLE ALL CROSSINGS AS NECESSARY TO PREVENT GRADE AND ALIGNMENT CONFLICTS. REPORT ALL CONFLICTS TO THE ENGINEER IMMEDIATELY. PROTECT EXISTING UTILITIES AT ALL TIMES DURING CONSTRUCTION. CALL THE ONE CALL UTILITY NOTIFICATION CENTER AT 503-246-6699 FOR UTILITY LOCATES. ANY DAMAGE TO EXISTING UTILITIES, WHETHER THEY'RE SHOWN ON THESE DRAWINGS OR NOT, WILL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE. ATTENTION: OREGON LAW REQUIRES ALL EXCAVATORS TO FOLLOW RULES ADOPTED BY THE OREGON UTILITY NOTIFICATION CENTER. THOSE RULES ARE SET FORTH IN OAR 952-001-0010 THROUGH OAR 952-001-0090. YOU MAY OBTAIN COPIES OF THE RULES BY CALLING THE CENTER. (NOTE: THE TELEPHONE NUMBER OF THE ADMINISTRATION OFFICE FOR THE OREGON UTILITY NOTIFICATION CENTER IS 503-232-1987).
- THERE ARE A NUMBER OF PRIVATE UTILITY FACILITIES WHICH WILL BE ADJUSTED OR RELOCATED BY EACH PRIVATE UTILITY. THE CONTRACTOR SHALL COORDINATE WITH EACH AFFECTED UTILITY A MINIMUM OF TWO WEEKS PRIOR TO WORK IN AN AREA REQUIRING ADJUSTMENT OR RELOCATION OF A PRIVATE UTILITY'S FACILITY. SEE SPECIFICATION SECTION 00150.50(f).
- THE CONTRACTOR SHALL EXERCISE ALL DUE CARE IN PROTECTING PROPERTY ALONG THE ROUTE OF THE IMPROVEMENTS. THIS PROTECTION SHALL INCLUDE, BUT NOT BE LIMITED TO, TREES, YARDS, FENCES, DRAINAGE LINES, MAIL BOXES, DRIVEWAYS, SHRUBS, LAWNS, IRRIGATION SYSTEMS, WITHIN ANY RIGHTS-OF-WAYS AND EASEMENTS. IF ANY OF THE ABOVE HAVE BEEN DISTURBED, THEY SHALL BE RESTORED AS NECESSARY TO AS NEAR THEIR ORIGINAL CONDITION AS POSSIBLE OR REPLACED IN KIND.
- THE CONTRACTOR SHALL PERFORM ALL THE WORK SHOWN ON THE DRAWINGS AND ALL INCIDENTAL WORK CONSIDERED NECESSARY TO COMPLETE THE PROJECT IN AN ACCEPTABLE MANNER.
- THE CONTRACTOR AND/OR EACH SUB-CONTRACTOR SHALL HAVE A MINIMUM OF ONE SET OF CITY-APPROVED CONSTRUCTION PLANS ON THE JOB SITE AT ALL TIMES DURING EACH CONSTRUCTION PHASE WHILE WORK IS BEING DONE.
- ALL MATERIAL SUPPLIERS SHALL SUBMIT TO THE ENGINEER PROOF OF MATERIAL(S) TESTED IN ACCORDANCE WITH SPECIFICATIONS. BY ACCEPTANCE OF THE CONTRACT WITH THE OWNER/DEVELOPER, THE CONTRACTOR CERTIFIES THAT ALL MATERIALS DELIVERED TO THE JOB SITE WILL MEET OR EXCEED THOSE SPECIFICATIONS. ANY MATERIAL NOT CONFORMING SHALL BE REMOVED FROM THE SITE AT NO ADDITIONAL COST TO THE OWNER.
- THE CONTRACTOR SHALL MAINTAIN ONSITE, ONE SET OF REDLINE AS-BUILT DRAWINGS TO BE PROVIDED TO THE PROJECT ENGINEER FOLLOWING NOTICE OF SUBSTANTIAL COMPLETION.
- THE CONTRACTOR SHALL NOTIFY THE CITY INSPECTOR AT LEAST 48 HOURS (TWO FULL WORKING DAYS) PRIOR TO BEGINNING THE PROJECT. CONNECTIONS BETWEEN EXISTING INFRASTRUCTURE AND NEW WORK SHALL NOT BE MADE UNTIL NECESSARY INSPECTIONS AND TESTS HAVE BEEN COMPLETED ON THE NEW WORK AND IT IS FOUND TO CONFORM IN ALL RESPECTS TO THE REQUIREMENTS OF THE PLANS AND SPECIFICATIONS.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO VISIT THE SITE AND POTHOLE AS NEEDED TO VERIFY ALL EXISTING CONDITIONS BEFORE THE START OF WORK. THE CONTRACTOR SHALL TAKE ALL NECESSARY FIELD MEASUREMENTS AND OTHERWISE VERIFY ALL DIMENSIONS AND EXISTING CONSTRUCTION CONDITIONS INDICATED AND/OR SHOWN ON THE PLANS. SHOULD ANY ERROR OR INCONSISTENCY EXIST, THE CONTRACTOR SHALL NOT PROCEED WITH THE WORK AFFECTED UNTIL REPORTED TO THE PROJECT ENGINEER FOR CLARIFICATION OR CORRECTION.
- THE CONTRACTOR SHALL MAKE PROVISIONS TO KEEP ALL EXISTING UTILITIES IN SERVICE AND PROTECT THEM DURING CONSTRUCTION. CONTRACTOR SHALL IMMEDIATELY REPAIR OR REPLACE ANY DAMAGED UTILITIES USING MATERIAL AND METHODS APPROVED BY THE UTILITY OWNER. NO SERVICE INTERRUPTIONS SHALL BE PERMITTED WITHOUT PRIOR WRITTEN APPROVAL FROM THE UTILITY PROVIDER.
- THE CONTRACTOR SHALL PRUNE ALL VEGETATION, AS NECESSARY AWAY AND UP FROM THE STREET AND SIDEWALK. AS WELL AS ANY ROOT PRUNING AS DETERMINED BY THE ENGINEER. THE CONTRACTOR SHALL PROTECT ALL EXISTING LANDSCAPING THAT IS TO REMAIN.
- AT THE END OF EACH WORK DAY, THE CONTRACTOR SHALL CLEAN UP THE PROJECT AREA AND LEAVE IT IN A NEAT AND SECURED MANNER. UPON COMPLETION, THE CONTRACTOR SHALL LEAVE THE PROJECT AREA FREE OF DEBRIS AND UNUSED MATERIAL.
- THE CONTRACTOR SHALL MAINTAIN AND COORDINATE ACCESS TO ALL PROPERTIES/BUSINESSES ADJACENT TO THE PROJECT. THE CONTRACTOR SHALL NOTIFY AFFECTED PROPERTY/ BUSINESS OWNERS A MINIMUM OF 48 HOURS PRIOR TO ANY DRIVEWAY CLOSURES AND ASSIST PROPERTY OWNER WITH ALTERNATIVE PARKING. PEDESTRIAN AND VEHICLE ACCESS TO ENTRANCES SHALL BE MAINTAINED AT ALL TIMES. THE CONTRACTOR SHALL PROVIDE RAMPS OR OTHER APPROVED METHODS FOR MAINTAINING ACCESS TO ENTRANCES. RAMPS SHALL BE ADA COMPLIANT, APPROVED BY THE ENGINEER, AND INCIDENTAL TO THE CONTRACT WORK.
- THE CONTRACTOR SHALL PROVIDE TO THE CITY PROJECT MANAGER AND PROJECT ENGINEER A 24 HOUR CONTACT PERSON AND PHONE NUMBER.
- THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR COMPLYING WITH ALL CONSTRUCTION SAFETY, HEALTH AND OTHER RULES AND REGULATIONS FROM OSHA, DEQ, STATE, AND LOCAL REGULATING AGENCIES FOR SAFETY AND INSTALLATION OF THE WORK INCLUDING BUT NOT LIMITED TO SHORING, BRACING, ERECTION/INSTALLATION, FALL PROTECTION, GUARDRAILS, ETC.
- IF CULTURAL OR ARCHAEOLOGICAL RESOURCES ARE DISCOVERED ON THE SITE DURING CONSTRUCTION ACTIVITY, INCLUDING BURIAL SITES, THE CITY OF TIGARD SHALL BE NOTIFIED IMMEDIATELY AND THE CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS OF SECTION 00290.50 OR 00290.51 OF THE OREGON STANDARD SPECIFICATIONS AS APPLICABLE.

STREETS AND STRUCTURAL FILLS:

- WORK ON THIS PROJECT SHALL CONFORM TO ALL REQUIREMENTS OF ACI 522.1, "SPECIFICATION FOR PERVIOUS CONCRETE PAVEMENT", PUBLISHED BY THE AMERICAN CONCRETE INSTITUTE, FARMINGTON HILLS, MICHIGAN, EXCEPT AS MODIFIED BY THESE CONTRACT DOCUMENTS.
- ALL TREES, BRUSH AND DEBRIS WITHIN THE LIMITS OF THE RIGHT-OF-WAY AND ON THE AREAS TO BE FILLED SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR UNLESS OTHERWISE NOTED ON THE PLANS OR FLAGGED IN THE FIELD.
- ALL AREAS OF CONSTRUCTION SHALL BE STRIPPED. STRIPPING SHALL CONSIST OF REMOVING THE TOPSOIL HUMUS. STRIPPING DEPTH SHALL BE 6" PER 00220.41. STRIPPING MATERIALS SHALL BE PLACED OR STOCKPILED BY THE CONTRACTOR ON SITE AS SHOWN ON THE PLANS AND PER INSTRUCTION BY THE INSPECTOR, OR HAULED OFF SITE TO AN APPROVED LOCATION.
- EMBANKMENTS AND STRUCTURAL FILLS FOR ROADWAY CONSTRUCTION OR FILLS TO BE CONSTRUCTED ON BUILDABLE AREAS SHALL BE CONSTRUCTED FROM EXCAVATED MATERIALS ACCEPTABLE TO THE SOILS ENGINEER AND SHALL BE BROUGHT TO GRADE IN LIFTS NOT TO EXCEED 8" LOOSE MEASURE. EACH LIFT SHALL BE COMPACTED TO 95 PERCENT OF MAXIMUM DENSITY AS OBTAINED BY AASHTO T-99 COMPACTION TEST. COMBINATION TEST RESULTS SHALL BE SUBMITTED TO THE CITY INSPECTOR.

- FILLS SHALL NOT BE CONSTRUCTED ON NATURAL SLOPES STEEPER THAN 2 HORIZONTAL TO 1 VERTICAL. ALL FILL SLOPES SHALL NOT EXCEED 2 HORIZONTAL TO 1 VERTICAL. NO ROCK OR SIMILAR IRREDUCIBLE MATERIAL WITH A MINIMUM DIMENSION GREATER THAN 12 INCHES SHALL BE BURIED OR PLACED IN THE FILLS.
- ROCK BASE FOR ASPHALTIC CONCRETE PAVEMENT, CURB AND SIDEWALK CONSTRUCTION SHALL BE AS SHOWN ON THE TYPICAL SECTIONS AND DETAIL SHEET AND IN ACCORDANCE WITH THE ABOVE REFERENCED SPECIFICATIONS.
- THE CONTRACTOR SHALL CLEAN ALL SPILLED DIRT, GRAVEL OR OTHER FOREIGN MATERIAL CAUSED BY THE CONSTRUCTION OPERATIONS FROM ALL STREETS AND ROADS AT THE CONCLUSION OF EACH DAY OR OPERATION. CLEANING SHALL BE BY GRADER AND FRONT-END LOADER, SUPPLEMENTED BY POWER BRUSHING AND HAND LABOR UNLESS OTHERWISE APPROVED BY THE CITY. THE CONTRACTOR SHALL FOLLOW CITY AND CWS EROSION CONTROL PROCEDURES.
- AS SOON AS PRACTICAL AFTER COMPLETION OF ALL PAVING AND GRAVEL SHOULDER RESURFACING, THE CONTRACTOR SHALL REMOVE ALL DIRT, MUD, ROCK GRAVEL AND OTHER FOREIGN MATERIAL FROM THE PAVED SURFACE AND STORM DRAINAGE SYSTEM.
- ALL RADII INDICATE FACE OF CURB OR EDGE OF PAVEMENT, AS APPLICABLE. ALL DIMENSIONING IS WITH RESPECT TO FACE OF CURB.
- ALL CUT EDGES SHALL BE SAND SEALED WITH CRS-1 OR CRS-2 EMULSIFIED ASPHALT OR APPROVED EQUAL.

STORM SEWER:

- ALL STORM SEWER CONSTRUCTION AND ALL MATERIALS SHALL CONFORM TO THE APPLICABLE SECTIONS OF THE CITY ENGINEERING DESIGN MANUAL & CWS DESIGN AND CONSTRUCTION STANDARDS.
- ALL SERVICE LATERALS TO BE CONSTRUCTED AT A MINIMUM SLOPE OF ONE-QUARTER INCH PER LINEAR FOOT UNLESS OTHERWISE SHOWN ON PLANS OR APPROVED BY THE CITY BUILDING DIVISION.
- ALL EXISTING STORM SYSTEMS SHALL BE CLEANED AND FLUSHED AND ORIGINAL DRAINAGE RESTORED. SEDIMENT, ROCK AND OTHER DEBRIS SHALL BE COLLECTED AND DISPOSED OF IN A PROPER MANNER. IN NO CASE SHALL DEBRIS BE FLUSHED DOWN A STORM OR SANITARY SEWER FOR DISPOSAL. ALL DAMAGED IRRIGATION AND HOUSE DRAINAGE PIPE, DRAIN TILES, SEWER LATERALS AND CULVERTS SHALL BE REPAIRED EXPEDITIOUSLY. DEBRIS COLLECTED SHALL BE DISPOSED IN A COMMERCIAL LANDFILL OR OTHER APPROVED LOCATION.
- STORM SEWER PIPE SHALL BE OF THE SIZE AND TYPE NOTED ON THE PLANS. CATCH BASINS AND CURB INLETS SHALL BE THE TYPE SHOWN ON THE DETAIL SHEET.
- INSTALLATION OF THE STORM SEWER SHALL BE PERFORMED ACCORDING TO THE STANDARD PRACTICE. PIPE LINES SHALL BE LAID ON A STRAIGHT ALIGNMENT AND UNIFORM GRADE BETWEEN STRUCTURES. PIPE BEDDING SHALL BE PLACED TO FORM A CONTINUOUS AND UNIFORM BEARING SUPPORT FOR THE PIPE AT EVERY POINT BETWEEN JOINTS; PIPE ZONE MATERIAL SHALL BE FIRST PLACED UP TO THE SPRING LINE OF THE PIPE AND MATERIAL UNIFORMLY COMPACTED BY HAND TO INSURE PROPER SUPPORT WITHIN THE PIPE HAUNCHES. ALL BACKFILL IN PUBLIC RIGHT OF WAY AND OTHER TRAFFIC AREAS SHALL BE 3/4"-0" COMPACTED CRUSHED ROCK, COMPACTED TO 95% PERCENT OF MAXIMUM DENSITY AS OBTAINED BY AASHTO T-99 COMPACTION TEST.
- PRIOR TO ACCEPTANCE, ALL PUBLIC STORM SEWER SHALL BE THOROUGHLY CLEANED AND, AS APPROPRIATE, MANDRELLED AND TV-SCANNED IN ACCORDANCE WITH THE CITY OF TIGARD'S REQUIREMENTS FOR SUCH TESTS.

TRAFFIC CONTROL:

- TRAFFIC CONTROL TO BE PERFORMED IN ACCORDANCE WITH THE MANUAL FOR UNIFORM TRAFFIC CONTROL DEVICES AND OREGON AMENDMENTS AS REQUIRED. THE CITY CAN REQUIRE ADDITIONAL TRAFFIC CONTROL MEASURES AS NEEDED TO PROVIDE FOR PUBLIC SAFETY.
- THE CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL PLAN FOR APPROVAL PER THE SPECIFICATIONS 7 DAYS PRIOR TO STARTING CONSTRUCTION.
- THE CONTRACTOR SHALL COORDINATE ACCESS TO DRIVEWAYS WITH PROPERTY OWNERS. ACCESS TO ROADWAY APPROACHES WITHIN THE PROJECT LIMITS SHALL BE MAINTAINED AT ALL TIMES. TRAFFIC PLATES SHALL BE USED (AND SECURED IN A MANNER ACCEPTABLE BY THE AGENCY) ACROSS ALL TRENCHES BLOCKING DRIVEWAYS TO PROVIDE ACCESS AT ALL TIMES. AT NO TIME SHALL CONTRACTORS DETAIN OR DELAY EMERGENCY VEHICLES.
- CONTRACTOR SHALL COORDINATE ACCESS FOR SERVICES INCLUDING, BUT NOT LIMITED TO, MAIL DELIVERY, TRASH PICKUP, SCHOOL TRANSPORTATION, AND ANY OTHER SPECIAL TRANSPORTATION SERVICES THAT EXIST WITHIN THE PROJECT AREA.
- EXISTING SIGNS THAT CONFLICT WITH CONSTRUCTION SIGNING ARE TO BE COVERED OR REMOVED AND REINSTALLED AFTER CONSTRUCTION.
- GRADE CHANGES WITHIN THE TRAVELED LANE OR A VERTICAL CHANGE OF MORE THAN 1" WILL REQUIRE TEMPORARY H/MAC RAMP WITH PAPER OR SAND JOINTS AS NEEDED.
- CONTRACTOR SHALL PROVIDE SAFE, STABLE, AND ACCESSIBLE ACCESS TO ALL DRIVEWAY AND PEDESTRIAN PATHS CONNECTING TO FRONT DOORS AT ALL TIMES. TEMPORARY INTERRUPTIONS IN ACCESS SHALL BE COORDINATED BY THE CONTRACTOR WITH THE PROPERTY OWNER/RENTER AS REQUIRED.

GENERAL SURVEY NOTES

- TOPOGRAPHIC FEATURES SHOWN WERE LOCATED USING STANDARD PRECISION TOPOGRAPHIC MAPPING PROCEDURES. THIRD PARTY USERS OF DATA PROVIDED VIA AUTOCAD DRAWING FILES OR DATA EXCHANGE FILES SHOULD NOT RELY ON ANY AUTOCAD GENERATED INFORMATION WHICH IS BEYOND THE LIMITS OF PRECISION. THIRD PARTIES USING DATA IN AN AUTOCAD FORMAT SHOULD VERIFY ANY ELEMENTS REQUIRING PRECISE LOCATIONS PRIOR TO COMMENCEMENT OF ANY CRITICAL DESIGN OR CONSTRUCTION. CONTACT COMPASS LAND SURVEYORS FOR FURTHER INFORMATION. FURTHERMORE, COMPASS LAND SURVEYORS WILL NOT BE RESPONSIBLE NOR HELD LIABLE FOR ANY DESIGN OR CONSTRUCTION RELATED PROBLEMS THAT ARISE OUT OF THIRD PARTY USAGE (IN AUTOCAD OR OTHER FORMAT) FOR ANY PURPOSE OTHER THAN SPECIFICALLY STATED HEREIN. THIS STATEMENT IS AN OFFICIAL PART OF THE SURVEY.
- ONLY VISIBLE UTILITIES BASED UPON OBSERVED FEATURES AS WELL AS TONE MARKS PROVIDED BY UTILITY LOCATORS AS A RESULT OF REQUEST FOR MARKINGS TO THE UTILITY NOTIFICATION CENTER HAVE BEEN SHOWN. ADDITIONAL UNDERGROUND UTILITIES MAY EXIST.
- BASIS OF ELEVATIONS: NGVD '29.
- BASIS OF HORIZONTAL POSITIONING: OREGON NORTH ZONE UTILIZING GPS OBSERVATIONS TIED TO THE OREGON REAL-TIME GPS NETWORK OREGON REAL-TIME GPS NETWORK NAD 83 (2011) EPOCH 2010.00.
- CONTOURS ARE ONE-HALF FOOT.
- UNDERGROUND PIPE SIZES AND MATERIAL TYPES ARE BASED UPON RECORD DRAWINGS, INFORMATION PROVIDED BY UTILITY LOCATORS AND FIELD OBSERVATIONS AT MANHOLES AND CATCH BASIN RIMS AND SHOULD BE VERIFIED.

LEGEND

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| | EXISTING RIGHT OF WAY |
| | EXISTING PROPOERTY LINE |
| | EXISTING EDGE OF PAVEMENT |
| | EXISTING CURB |
| | EXISTING CONCRETE SIDEWALK |
| | EXISTING STORM, SIZE NOTED IF KNOWN |
| | EXISTING SANITARY, SIZE NOTED IF KNOWN |
| | EXISTING WATER, SIZE NOTED IF KNOWN |
| | EXISTING GAS |
| | EXISTING OVERHEAD TELEPHONE |
| | EXISTING UNDERGROUND TELEPHONE |
| | EXISTING OVERHEAD POWER |
| | EXISTING ELECTRICAL LINE |
| | EXISTING FENCE |
| | EXISTING COBBLE STONE WALL |
| | EXISTING MONUMENT |
| | EXISTING MANHOLE |
| | EXISTING CATCH BASIN |
| | EXISTING AREA DRAIN |
| | EXISTING ROOF DRAIN |
| | EXISTING CLEANOUT |
| | EXISTING WATER METER |
| | EXISTING WATER VALVE |
| | EXISTING FIRE HYDRANT |
| | EXISTING GAS VALVE |
| | EXISTING UTILITY POLE |
| | EXISTING GUY WIRE |
| | EXISTING TRAFFIC BOX |
| | EXISTING TV PEDESTAL |
| | EXISTING PHONE PEDESTAL |
| | EXISTING PHONE VAULT |
| | EXISTING MAILBOX |
| | EXISTING FLEXIBLE GUIDE POST |
| | EXISTING SIGN |
| | EXISTING TREE, SHRUB, OR ROOT SYSTEM |
| | EXISTING BUILDING |
| | EXISTING MAJOR CONTOUR |
| | EXISTING MINOR CONTOUR |
| | PROPOSED CENTERLINE |
| | PROPOSED CURB |
| | PROPOSED PAVEMENT RESTORATION |
| | PROPOSED SIDEWALK |
| | PROPOSED SEEDING |
| | PROPOSED ASPHALT TRANSITION |
| | APPROXIMATE CUT/FILL LINE |
| | PROPOSED SAWCUT |
| | PROPOSED PERFORATED STORM |
| | PROPOSED STORM |
| | PROPOSED CATCH BASIN |
| | PROPOSED TREE |
| | PROPOSED BLOCK WALL |
| | REINSTALLED MAILBOX |
| | REINSTALLED SIGN |



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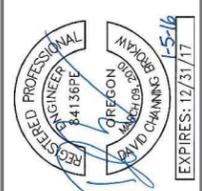
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 IF NOT ONE INCH ADJUST SCALE ACCORDINGLY

wallis engineering
 CONSULTING ENGINEERS
 3903 69th Dr NE
 Everett, WA 98203
 (425) 336-7041

DATE: 01/2016
 PROJECT NO: 1388A

CITY OF TIGARD
 SIDEWALK INFILL
 SW NORTH DAKOTA STREET
 & SW 95TH AVENUE

DRAWING NO:
C2
 2 OF 19



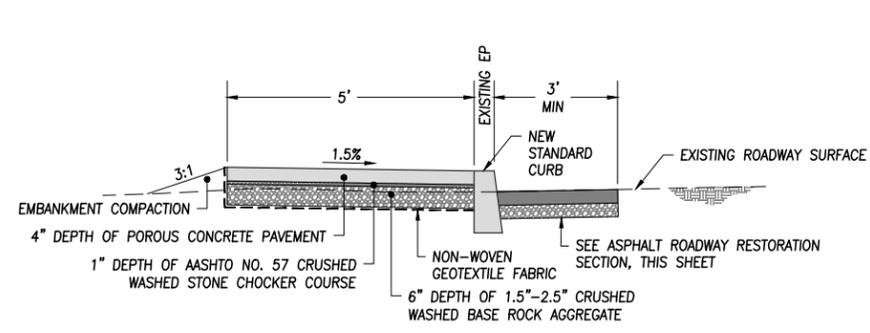
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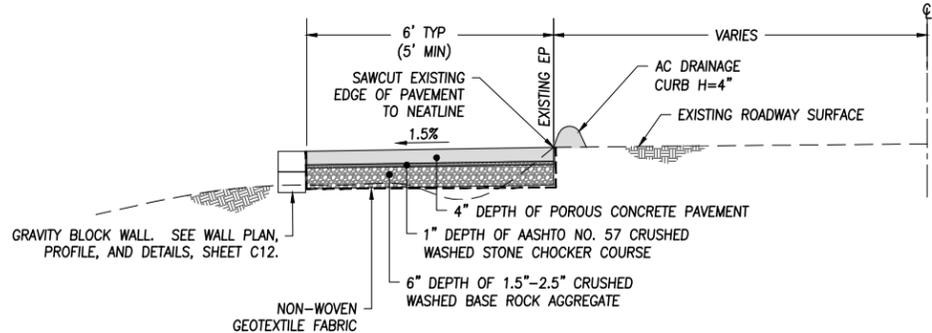
TYPICAL SECTIONS

wallis engineering
 PROJECT NO: 1388A
 DATE: 01/2016

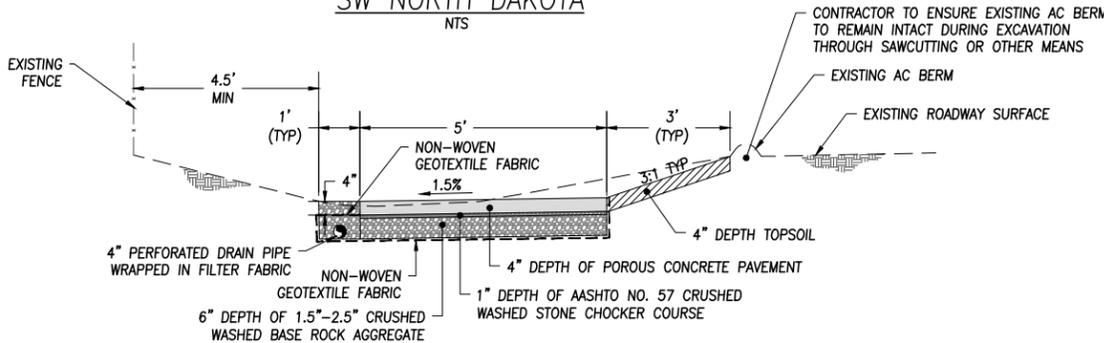
CITY OF TIGARD
 SIDEWALK INFILL
 SW NORTH DAKOTA STREET
 & SW 95TH AVENUE



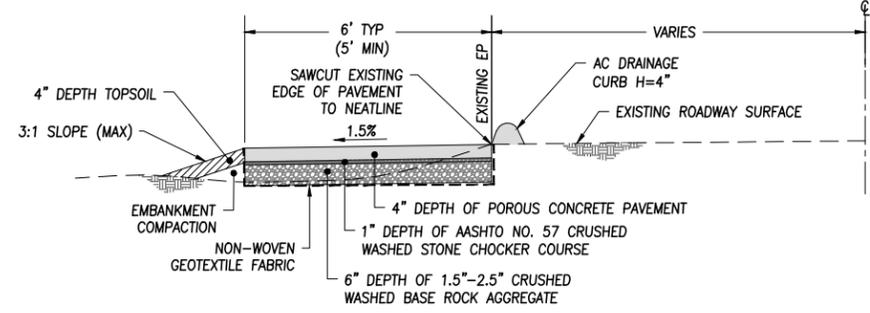
STA 0+29 TO STA 1+01
 SW NORTH DAKOTA
 NTS



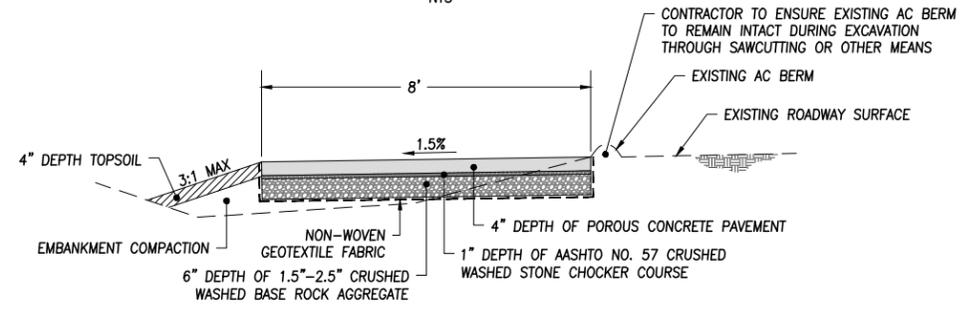
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 STA 11+40 TO STA 11+78
 SW 95TH AVE
 NTS



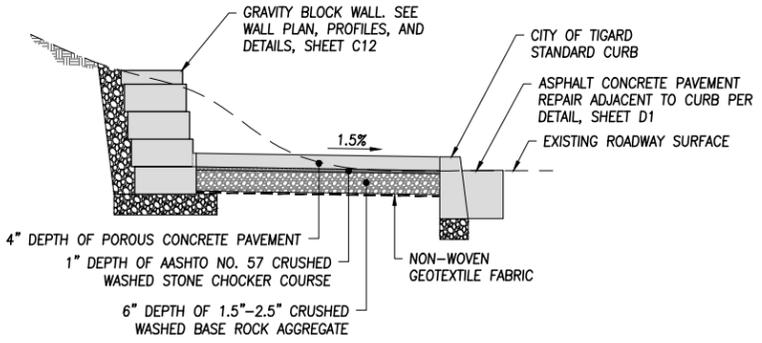
STA 1+01 TO STA 1+88
 STA 2+11 TO STA 2+97
 SW NORTH DAKOTA
 NTS



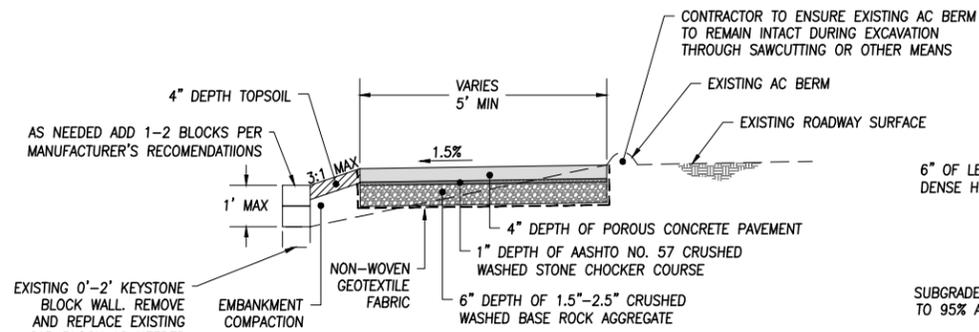
STA 10+59 TO STA 10+78
 STA 12+17 TO STA 13+01
 SW 95TH AVE
 NTS



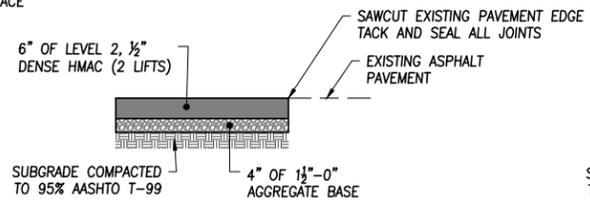
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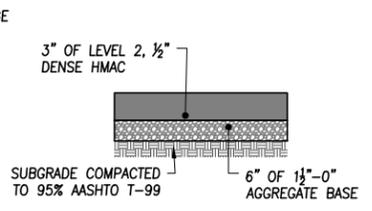
STA 13+17 TO STA 13+84
 SW 95TH AVE
 NTS



STA 2+97 TO STA 3+10
 STA 3+48 TO STA 3+92
 SW NORTH DAKOTA
 NTS



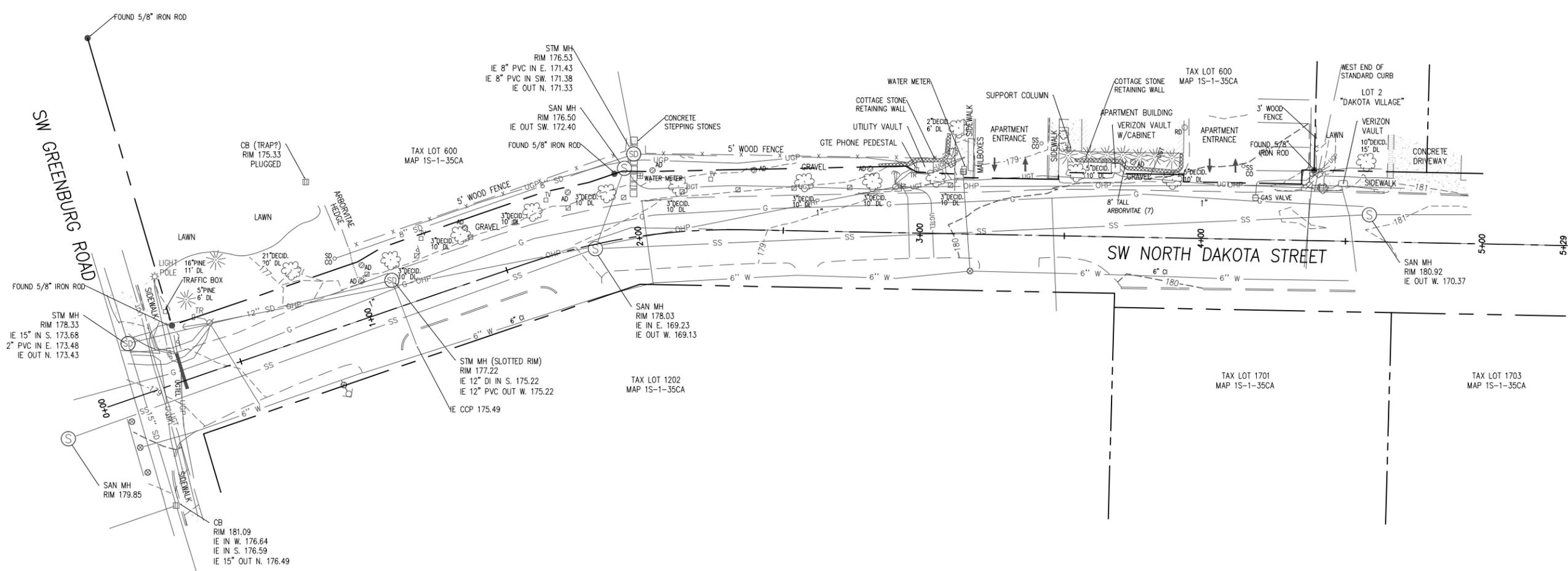
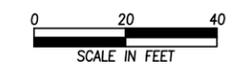
TYPICAL ASPHALT
 ROADWAY RESTORATION SECTION
 NTS



TYPICAL ASPHALT
 WALK SECTION
 NTS

NOTES:

- BEFORE PLACING BASE AGGREGATE, REMOVE ANY ACCUMULATION OF FINE MATERIAL FROM EROSION WITH LIGHT EQUIPMENT AND SCARIFY SOILS TO A MINIMUM DEPTH OF 6 INCHES IF COMPACTED.
- SEED ALL BARE SOILS WITH LAWN SEED MIX.
- ALL CONSTRUCTION AREAS SHALL BE STRIPPED TO A DEPTH OF 6".



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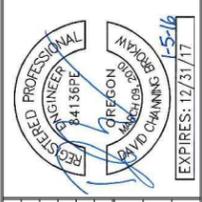
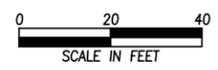
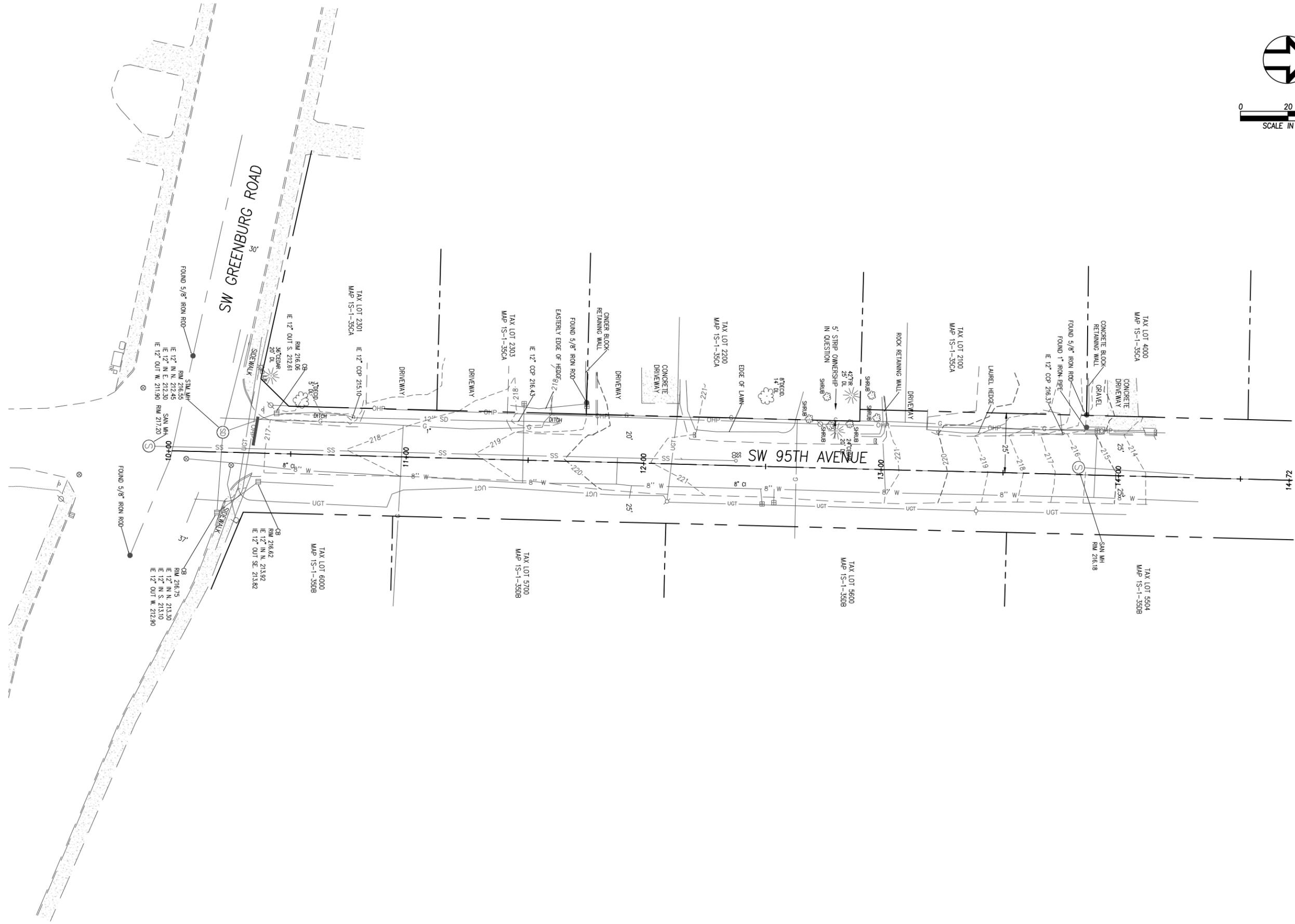
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**EXISTING CONDITIONS
SW NORTH DAKOTA ST**

wallis engineering
1388A SW 95TH AVENUE
TIGARD, OR 97146
503.695.7041

PROJECT NO: 1388A
DATE: 01/2016

CITY OF TIGARD
SIDEWALK INFILL
SW NORTH DAKOTA STREET
& SW 95TH AVENUE



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ONE INCH AT FULL SCALE.
IF NOT ONE INCH ADJUST SCALE ACCORDINGLY

**EXISTING CONDITIONS
SW 95TH AVE**

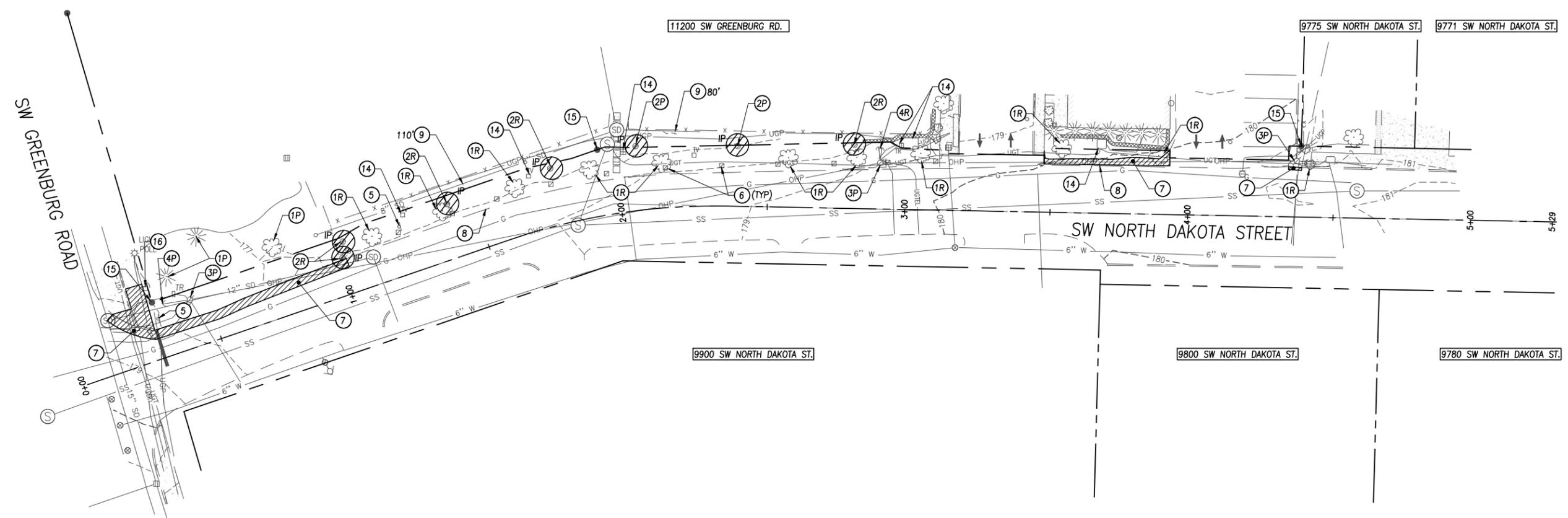
wallis engineering
ARCHITECTURAL & CIVIL ENGINEERING
390.695.7041
NORWALK, WA 98620

PROJECT NO: 1388A
DATE: 01/2016

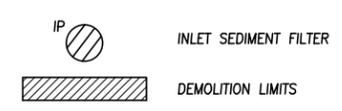
CITY OF TIGARD
SIDEWALK INFILL
SW NORTH DAKOTA STREET
& SW 95TH AVENUE



0 20 40
SCALE IN FEET

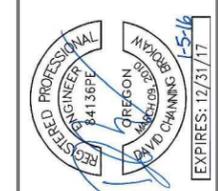


EROSION CONTROL & DEMOLITION LEGEND



DEMOLITION NOTES

- ① REMOVE (R) OR PROTECT (P) EXISTING TREE.
- ② REMOVE (R) OR PROTECT (P) EXISTING STORM STRUCTURE. CAP AND ABANDON EXISTING STORM PIPING FOR REMOVED STRUCTURES UNLESS NOTED OTHERWISE.
- ③ PROTECT (P) EXISTING POWER POLE.
- ④ EXISTING GUY WIRE TO BE RELOCATED (R) BY OTHERS OR PROTECTED (P) IN PLACE.
- ⑤ REMOVE AND SALVAGE EXISTING SIGN. STOP SIGNS MUST BE MAINTAINED ON TEMPORARY SUPPORTS AT ALL TIMES AFTER REMOVAL.
- ⑥ REMOVE EXISTING DELINEATORS.
- ⑦ SAWCUT TO NEAT LINE AND REMOVE EXISTING CURB, DRIVEWAY, ASPHALT, CONCRETE, OR WALK TO FULL DEPTH.
- ⑧ EXISTING AC BERM TO REMAIN.
- ⑨ REMOVE EXISTING STORMWATER PIPING OF LENGTH NOTED (X).
- ⑭ EXISTING UTILITY STRUCTURE TO BE RELOCATED, ADJUSTED BY OTHERS OR PROTECTED IN PLACE.
- ⑮ PROTECT EXISTING MONUMENT IN PLACE.
- ⑯ PROTECT EXISTING TRAFFIC SIGNAL BOX, EXISTING LOOP WIRING AND EXISTING SIGNAL CONDUIT.



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DRAWN BY: TS/CK
CHECKED BY: WS

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1 ONE INCH AT FULL SCALE.
IF NOT ONE INCH ADJUST SCALE ACCORDINGLY

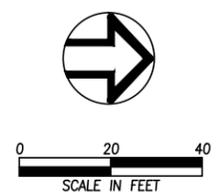
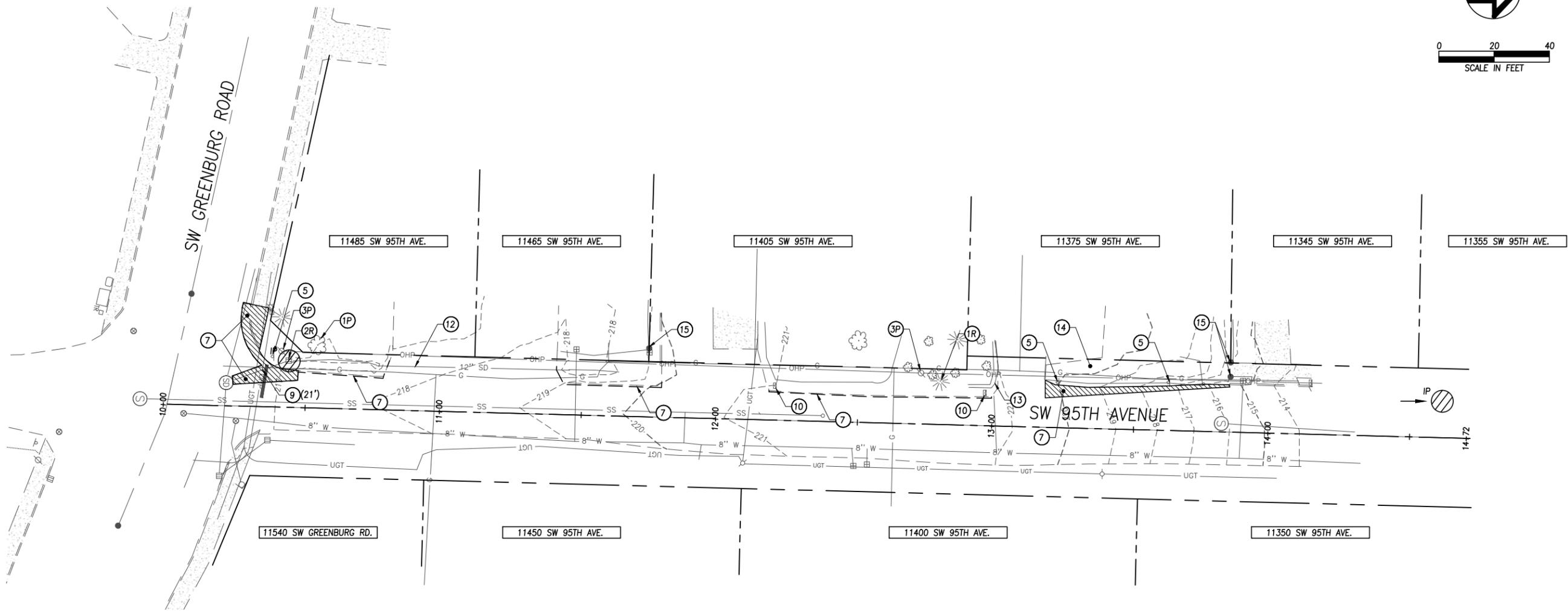
DEMOLITION AND EROSION CONTROL I

wallis engineering
380.695.7041
TIGARD, OR 97146

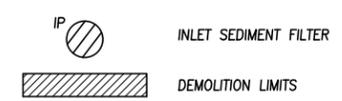
PROJECT NO: 1388A
DATE: 01/2016

CITY OF TIGARD
SIDEWALK INFILL
SW NORTH DAKOTA STREET
& SW 95TH AVENUE

DRAWING NO:
C6
6 OF 19



EROSION CONTROL & DEMOLITION LEGEND



DEMOLITION NOTES

- ① REMOVE (R) OR PROTECT (P) EXISTING TREE.
- ② REMOVE (R) EXISTING STORM STRUCTURE. CAP AND ABANDON EXISTING STORM PIPING FOR REMOVED STRUCTURES UNLESS NOTED OTHERWISE.
- ③ PROTECT (P) EXISTING POWER POLE.
- ⑤ REMOVE AND SALVAGE EXISTING SIGN. STOP SIGNS MUST BE MAINTAINED ON TEMPORARY SUPPORTS AT ALL TIMES AFTER REMOVAL.
- ⑦ SAWCUT TO NEAT LINE AND REMOVE EXISTING ADA RAMP, CONCRETE, OR WALK TO FULL DEPTH.
- ⑨ REMOVE EXISTING STORMWATER PIPING OF LENGTH NOTED (X).
- ⑩ REMOVE, MAINTAIN TEMPORARY AND REINSTALL EXISTING MAILBOX.
- ⑫ CAP AND ABANDON EXISTING STORMWATER PIPING.
- ⑬ REMOVE EXISTING ROCK WALL (0-12" HEIGHT) AS NEEDED FOR CONSTRUCTION. MATCH EXISTING GRADE.
- ⑭ REMOVE EXISTING LAUREL HEDGE.
- ⑮ PROTECT EXISTING MONUMENT IN PLACE.



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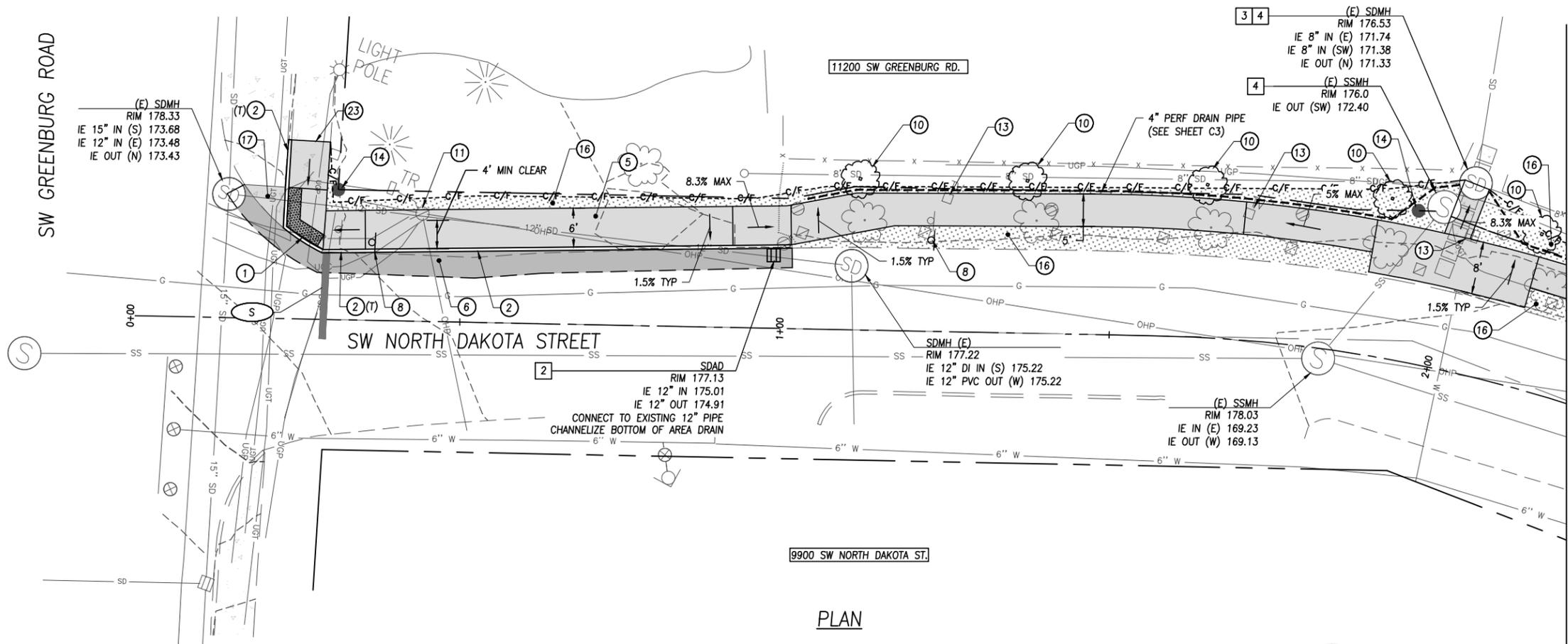
DESIGNED BY: DB
 DRAWN BY: TS/CK
 CHECKED BY: WS
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DEMOLITION AND EROSION CONTROL II

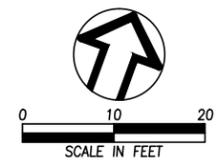
PROJECT NO: 1388A
 DATE: 01/2016

CITY OF TIGARD
 SIDEWALK INFILL
 SW NORTH DAKOTA STREET
 & SW 95TH AVENUE

SW GREENBURG ROAD

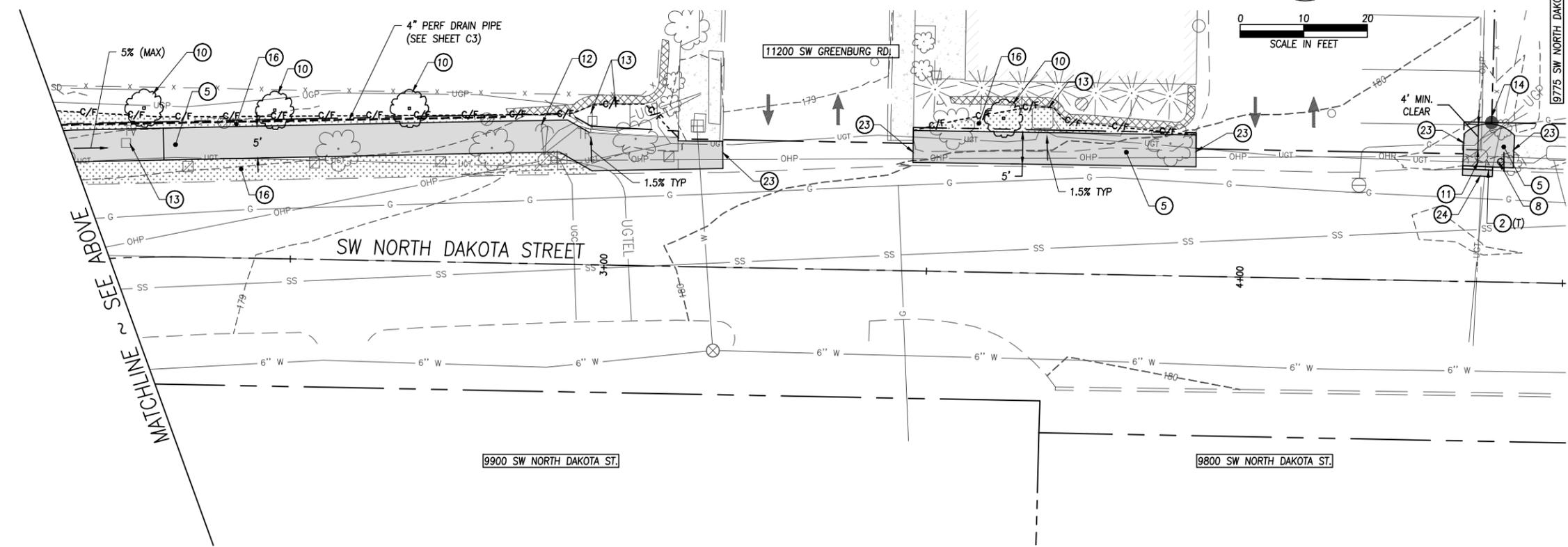


PLAN

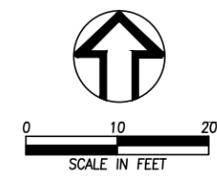


- CONSTRUCTION NOTES**
- CONSTRUCT PARALLEL SIDEWALK PER ODOT STD. DWG. RD 755, SHEET D2. SEE SHEET C11 AND D2 FOR ADDITIONAL CURB DETAILS.
 - CONSTRUCT STANDARD CURB PER CITY OF TIGARD STD. DWG. NO. 125, SHEET D1. TRANSITION CONCRETE CURB FROM FULL HEIGHT TO FLUSH WHERE NOTED (T).
 - CONSTRUCT POROUS CONCRETE SIDEWALK. SEE TYPICAL SECTIONS SHEET C3 FOR DETAILS.
 - CONSTRUCT ASPHALT ROADWAY RESTORATION, SEE TYPICAL SECTIONS SHEET C3 FOR DETAILS.
 - REINSTALL SALVAGED SIGN ON NEW 2"-12 GA PSST SIGN POST AND VANE ANCHOR FOUNDATION PER ODOT STD. DWG. TM 200 AND TM 681, SHEET D3 & TM 689, SHEET D4.
 - INSTALL NEW TREE. ALL TREES TO BE 1" CALIPER CERCIS CANADENSIS (EASTERN REDBUD). SEE INSTALLATION DETAIL, SHEET D1.
 - CONSTRUCT SIDEWALK AROUND EXISTING POWER POLE TO REMAIN.
 - EXISTING GUY WIRE TO BE ADJUSTED BY OTHERS.
 - UTILITY TO BE RELOCATED/ADJUSTED BY OTHERS.
 - PROTECT EXISTING MONUMENT IN PLACE.
 - PROPOSED LANDSCAPE RESTORATION PERMANENT SEEDING AREA. SEE TYPICAL SECTIONS, SHEET C3 AND SPECIFICATIONS FOR DETAILS.
 - INSTALL CONCRETE BUS PAD PER DETAIL, SHEET D1.
 - CONFORM TO EXISTING ASPHALT OR CONCRETE SURFACING.
 - CONSTRUCT ASPHALT PAVEMENT REPAIR ADJACENT TO CURB PER DETAIL, SHEET D1.

MATCHLINE ~ SEE BELOW

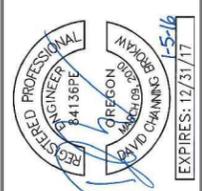


PLAN



- UTILITY NOTES**
- CONSTRUCT AREA DRAIN TYPE II PER CWS STD. DWG. NO. 380, SHEET D5.
 - CONNECT PERF. DRAIN PIPE TO EXISTING MANHOLE.
 - ADJUST EXISTING UTILITY STRUCTURE TO FINISH GRADE.
- STRIPING NOTES:**
- INSTALL NEW STRIPING AS CALLED OUT WITH X OR T, WHERE X REFERS TO PAVEMENT MARKING SHOWN ON ODOT STD. DWGS. TM 500 AND TM 503, SHEET D3.

MATCHLINE ~ SEE ABOVE



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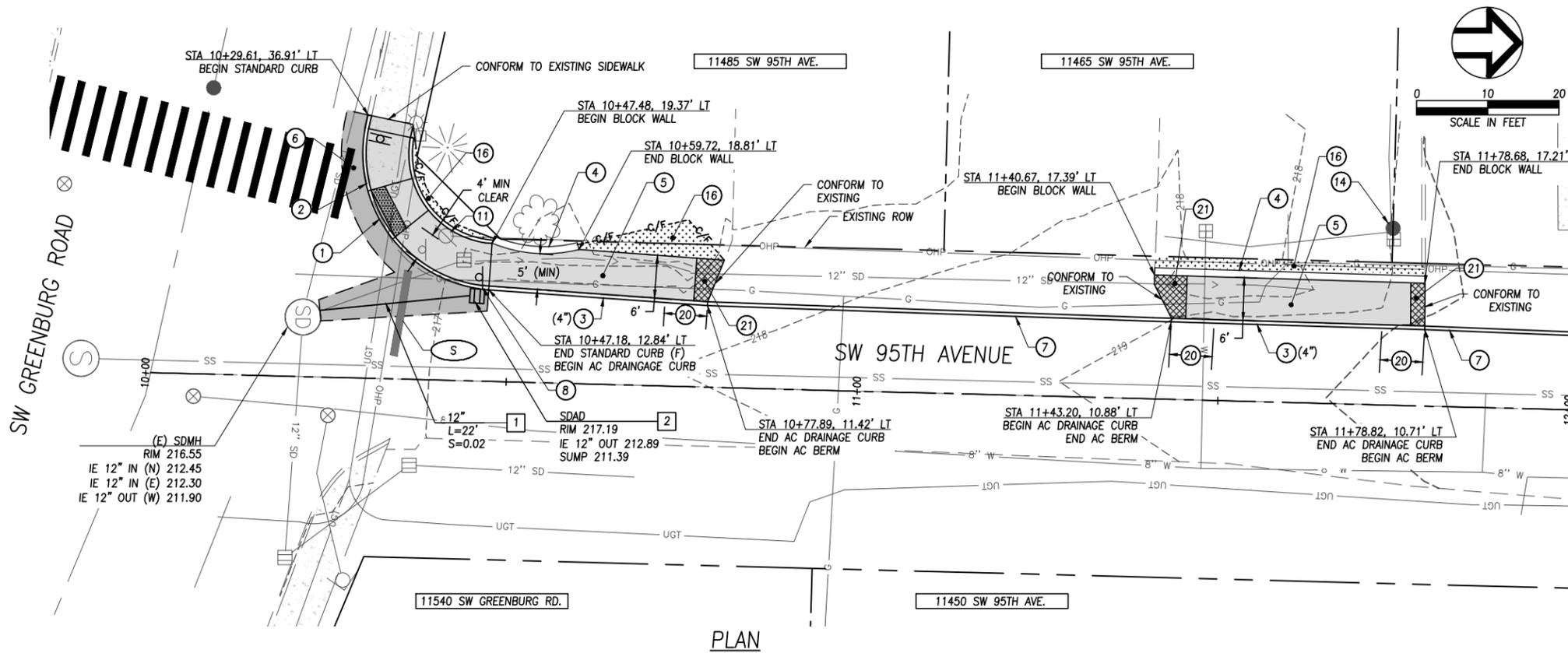
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 CHECKED BY: WS

ONE INCH AT FULL SCALE.
 IF NOT ONE INCH ADJUST SCALE ACCORDINGLY

wallis engineering
 390.695.7041
 1388A
 DATE: 01/2016
 PROJECT NO: 1388A

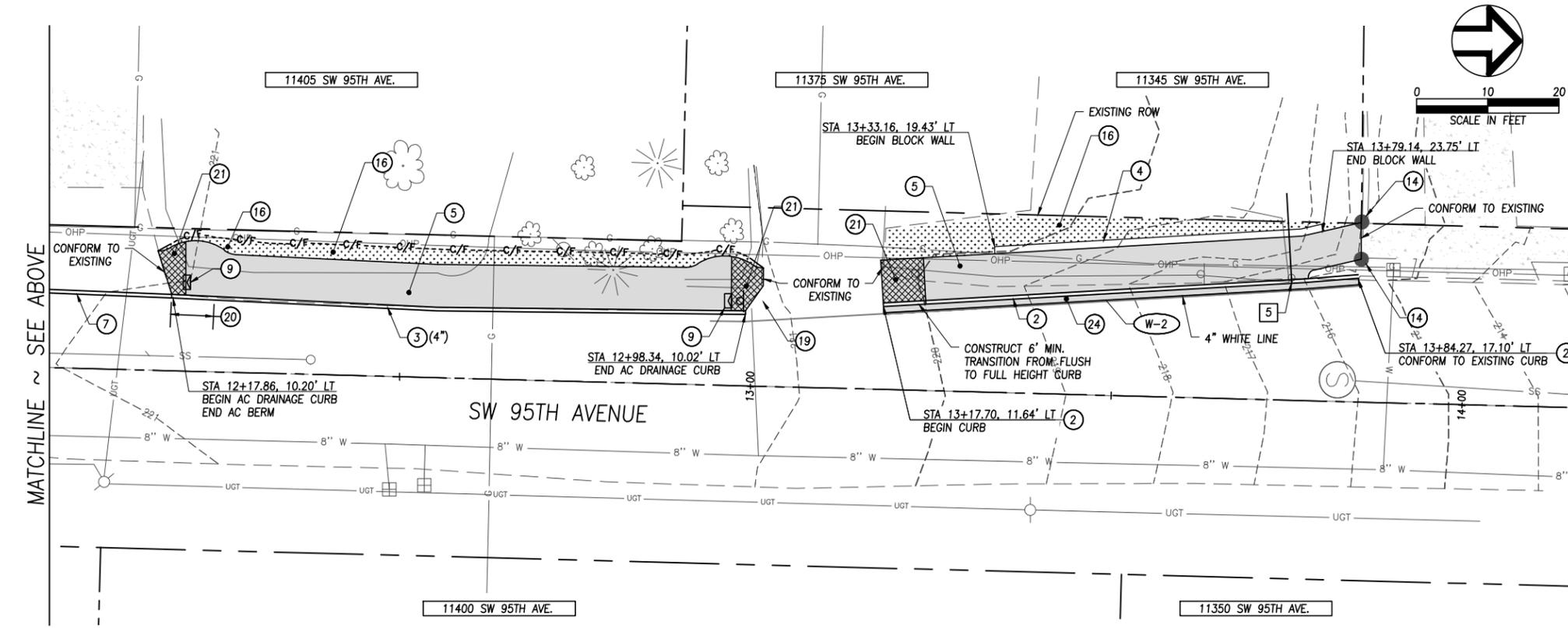
CITY OF TIGARD
 SIDEWALK INFILL
 SW NORTH DAKOTA STREET
 & SW 95TH AVENUE

DRAWING NO:
 C8
 8 OF 19



PLAN

MATCHLINE ~ SEE BELOW



PLAN

CONSTRUCTION NOTES

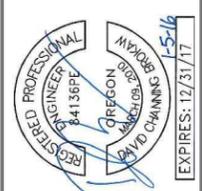
1. CONSTRUCT DIAGONAL-PARALLEL SIDEWALK RAMP PER ODOT STD. DWG. RD 755, SHEET D2. SEE SHEET C11 AND D2 FOR ADDITIONAL CURB DETAILS.
2. CONSTRUCT STANDARD CURB PER CITY OF TIGARD STD. DWG. NO. 125, SHEET D1.
3. CONSTRUCT AC DRAINAGE CURB OF HEIGHT NOTED PER ODOT STD. DWG. RD 701, SHEET D2.
4. CONSTRUCT BLOCK WALL. SEE TYPICAL SECTIONS SHEET C3 FOR DETAILS. SEE SHEET C12 FOR WALL PROFILES.
5. CONSTRUCT POROUS CONCRETE SIDEWALK. SEE TYPICAL SECTIONS SHEET C3 FOR DETAILS.
6. CONSTRUCT ASPHALT ROADWAY RESTORATION, SEE TYPICAL SECTIONS SHEET C3 FOR DETAILS.
7. CONSTRUCT 2" ASPHALT BERM PER DETAIL, SHEET D1.
8. REINSTALL SALVAGED SIGN ON NEW 2"-12 GA PSST SIGN POST AND ANCHOR FOUNDATION PER ODOT STD. DWG. TM 200 AND TM 681, SHEET D3 & TM 689, SHEET D4.
9. REINSTALL SALVAGED MAILBOX ON NEW SUPPORT PER ODOT STD. DWG. RD 100. WIDEN SIDEWALK TO PROVIDE MINIMUM 4' ACCESSIBLE CLEAR SPACE AROUND MAILBOX.
11. CONSTRUCT SIDEWALK AROUND EXISTING POWER POLE TO REMAIN.
14. PROTECT EXISTING MONUMENT IN PLACE.
16. PROPOSED LANDSCAPE RESTORATION PERMANENT SEEDING AREA. SEE TYPICAL SECTIONS, SHEET C3 AND SPECIFICATIONS FOR DETAILS.
19. INSTALL TYPE 3 OBJECT MARKER (OM-3R)
20. 6' TRANSITION FROM 4" AC DRAINAGE CURB TO 2" AC BERM.
21. 2' MIN. ASPHALT WALK TRANSITION SECTION. MATCH EXISTING DRIVEWAY GRADES AND TIE IN WITH PROPOSED WALK. PROPOSED WALK MUST BE ADA COMPLIANT AT TIE IN TO POROUS CONCRETE. SEE DETAIL, SHEET C3. CONTRACTOR TO VERIFY POSITIVE DRAINAGE PRIOR TO CONSTRUCTION.
24. CONSTRUCT ASPHALT PAVEMENT REPAIR ADJACENT TO CURB PER DETAIL, SHEET D1.

UTILITY NOTES

1. CONSTRUCT 3034 PVC STORM LINE OF SIZE NOTED.
2. CONSTRUCT AREA DRAIN TYPE II PER CWS STD. DWG. NO. 380, SHEET D5.
5. CONNECT TO EXISTING DRAIN PIPE. EXTEND 3" SCH 40 PVC THROUGH CURB PER CITY OF TIGARD STD. DWG. NO. 125, SHEET D1.

STRIPING NOTES:

1. INSTALL NEW STRIPING AS CALLED OUT WITH 'X' WHERE X REFERS TO PAVEMENT MARKING SHOWN ON ODOT STD. DWGS. TM 500 AND TM 503, SHEET D3.



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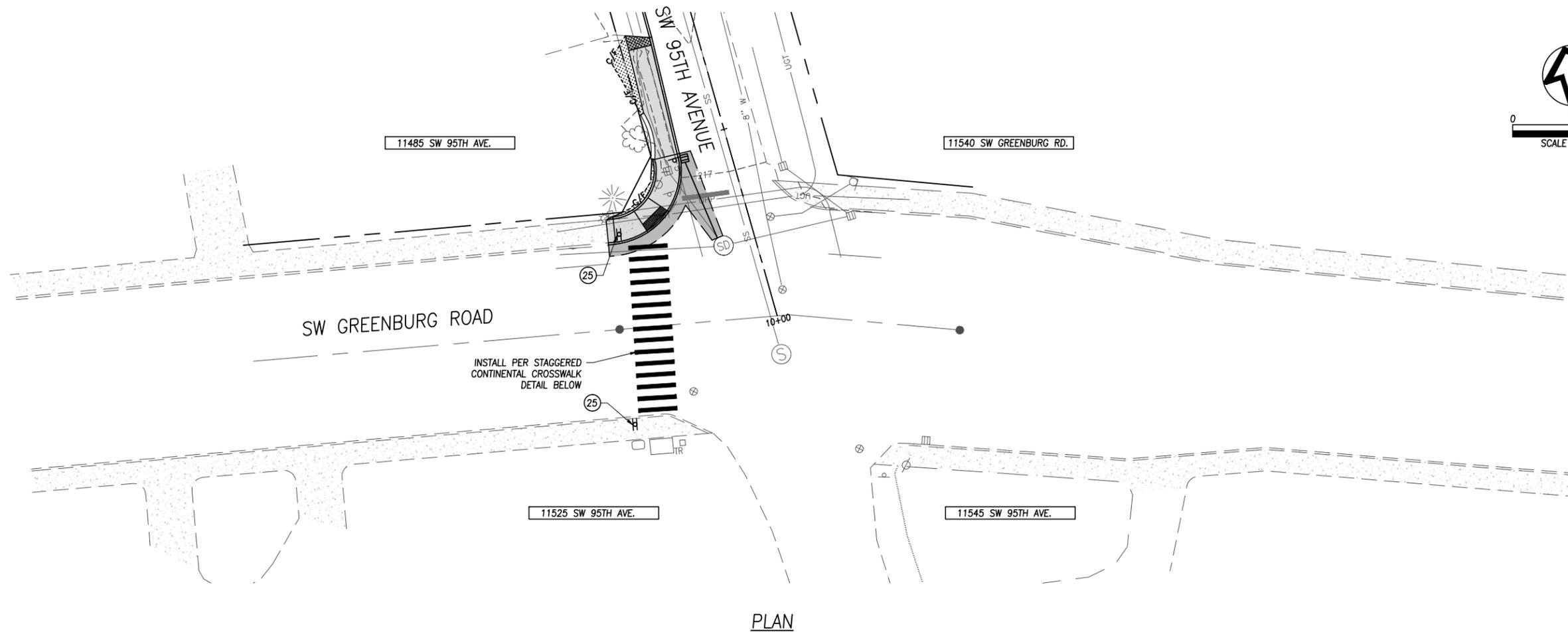
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SCALE: 1" = 100'
IF NOT ONE INCH ADJUST SCALE ACCORDINGLY

**SW 95TH AVENUE
IMPROVEMENT PLAN**

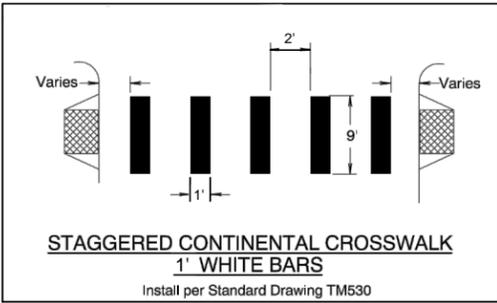
wallis engineering
INCORPORATED
3800 69th Ave SE
Tigard, OR 97138
503.695.7041

DATE: 01/2016
PROJECT NO: 1388A

CITY OF TIGARD
SIDEWALK INFILL
SW NORTH DAKOTA STREET
& SW 95TH AVENUE

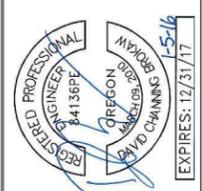


PLAN



CONSTRUCTION NOTES

(25) INSTALL DUAL SIDED SOLAR POWERED RRFB PER ODOT STD DETAIL DET4437



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DESIGNED BY: DB
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 CHECKED BY: WS

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 IF NOT ONE INCH ADJUST SCALE ACCORDINGLY

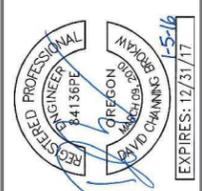
SW 95TH AVENUE AND SW GREENBURG ROAD INTERSECTION PLAN

wallis engineering
 390.695.7041
 1100 W. 10th Street, Tigard, OR 97138

PROJECT NO: 1388A
 DATE: 01/2016

CITY OF TIGARD
 SIDEWALK INFILL
 SW NORTH DAKOTA STREET & SW 95TH AVENUE

DRAWING NO:
C10
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 DRAWN BY: TS/CK
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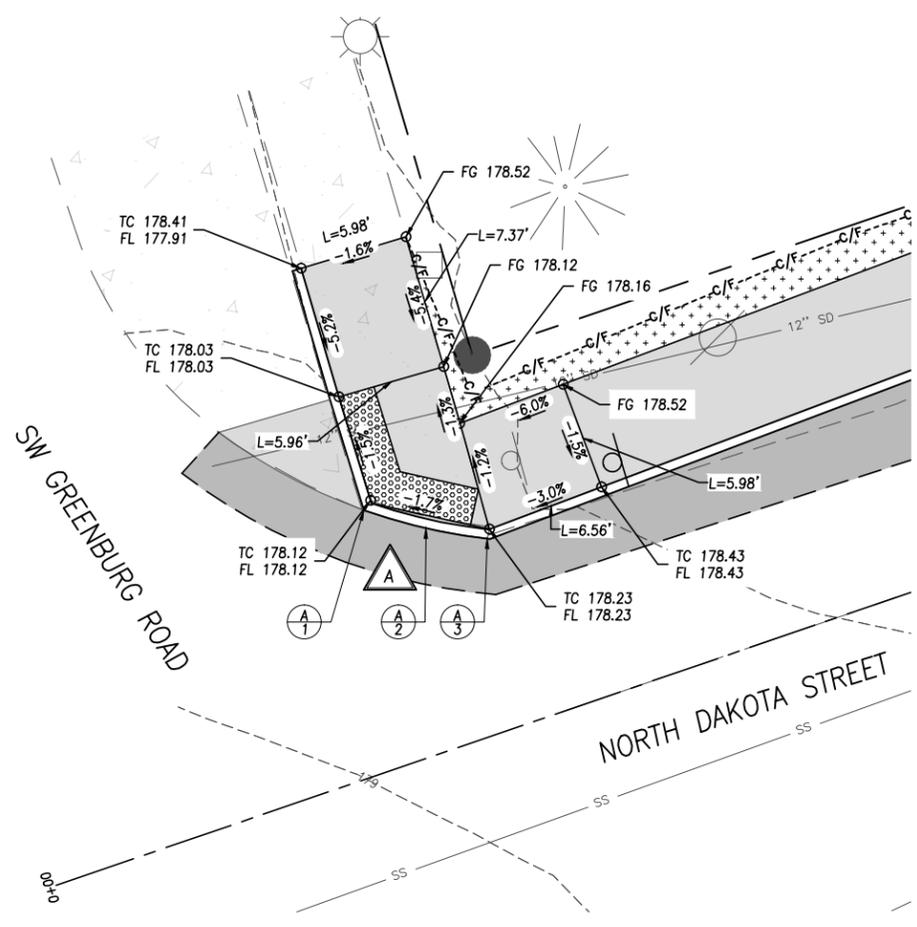
0 ONE INCH AT FULL SCALE.
 1 ONE INCH AT FULL SCALE.
 IF NOT ONE INCH ADJUST SCALE ACCORDINGLY

wallis engineering
 Wallis Engineering, Inc.
 3900 69th Ave NE
 Everett, WA 98203
 425.796.7041

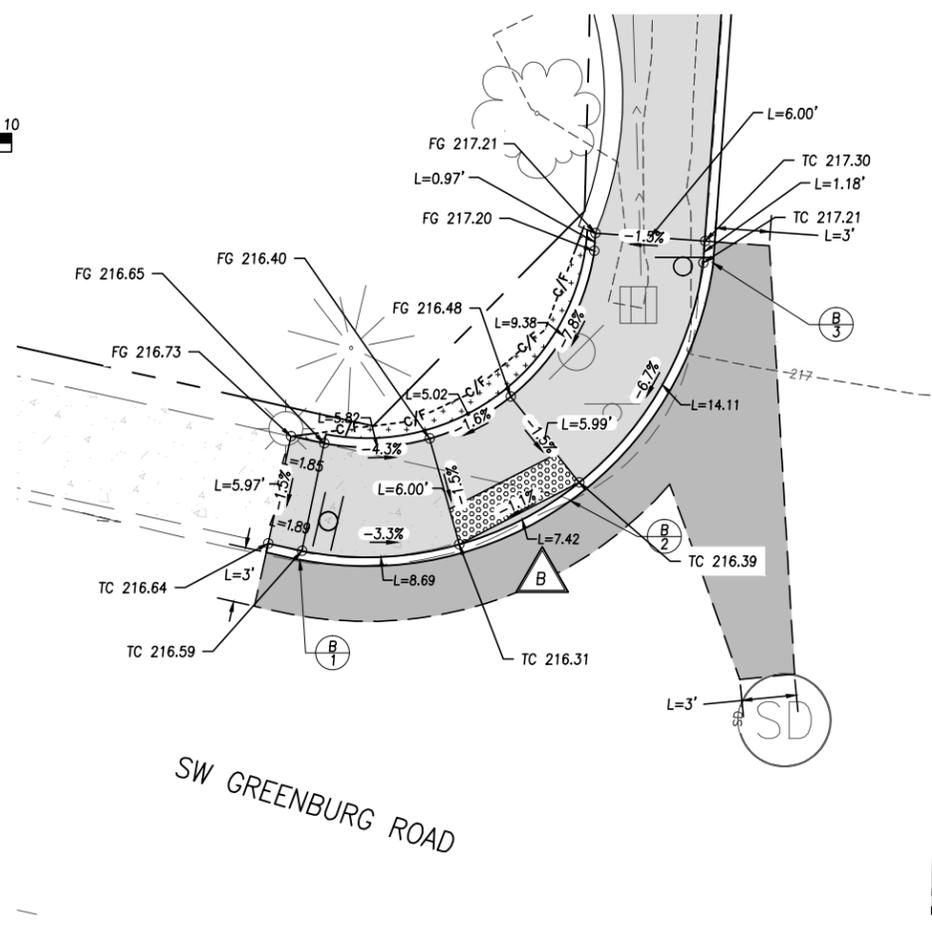
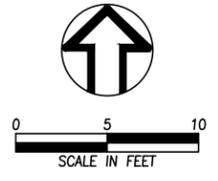
PROJECT NO: 1388A
 DATE: 01/2016

CITY OF TIGARD
 SIDEWALK INFILL
 SW NORTH DAKOTA STREET
 & SW 95TH AVENUE

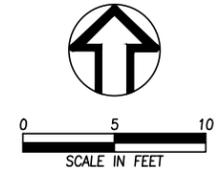
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C11
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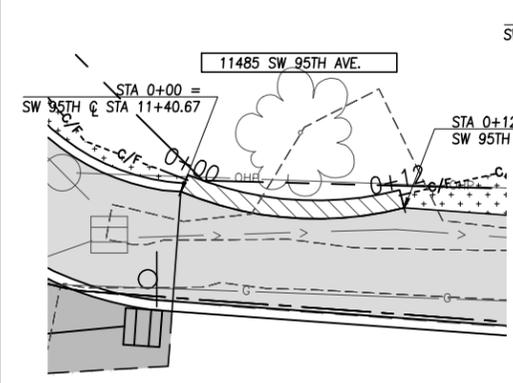
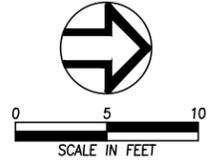
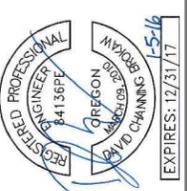
SW GREENBURG ROAD & NORTH DAKOTA STREET



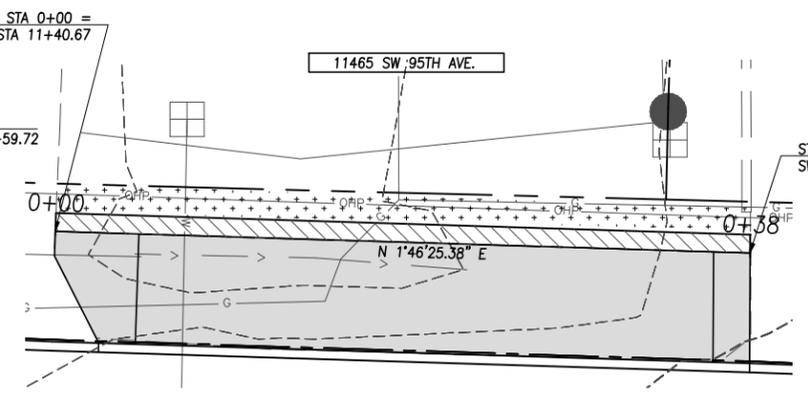
SW GREENBURG ROAD & 95TH AVENUE



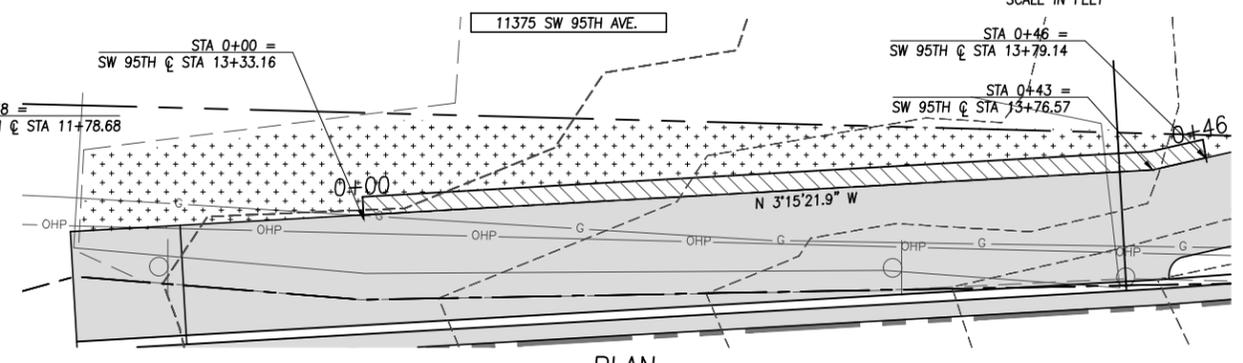
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|--|-------------|--------------|----------------|-----------|
| | | LOCATION | CENTERLINE STA | OFFSET |
| A CURVE RAD = 30.08' LEN = 7.08' Δ = 13°29'43" | (A1) | PC | STA 0+22.55 | 13.92' LT |
| | (A2) | MID | STA 0+25.45 | 11.89' LT |
| | (A3) | PT | STA 0+28.56 | 10.21' LT |
| B CURVE RAD = 19.12' LEN = 31.14' Δ = 93°18'23" | (B1) | PC | STA 10+29.25 | 25.06' LT |
| | (B2) | MID | STA 10+32.87 | 20.35' LT |
| | (B3) | PT | STA 10+46.01 | 17.89' LT |



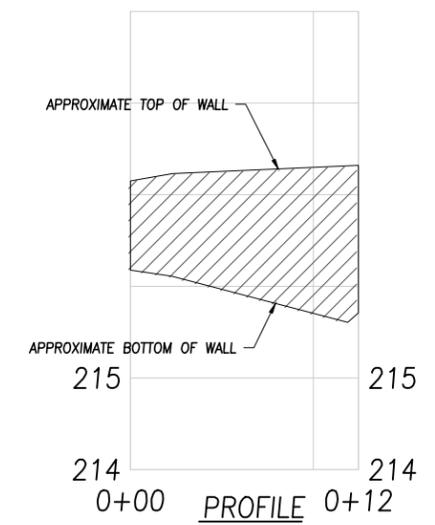
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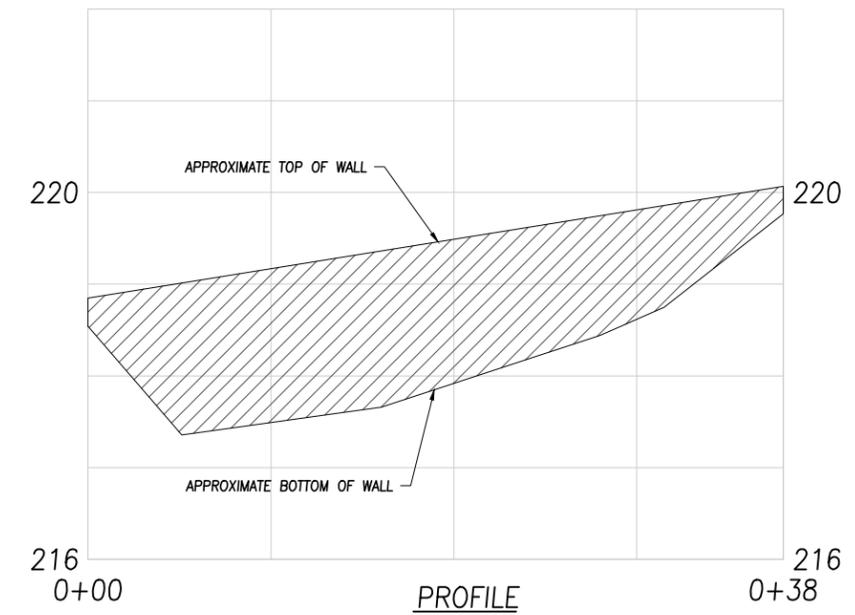
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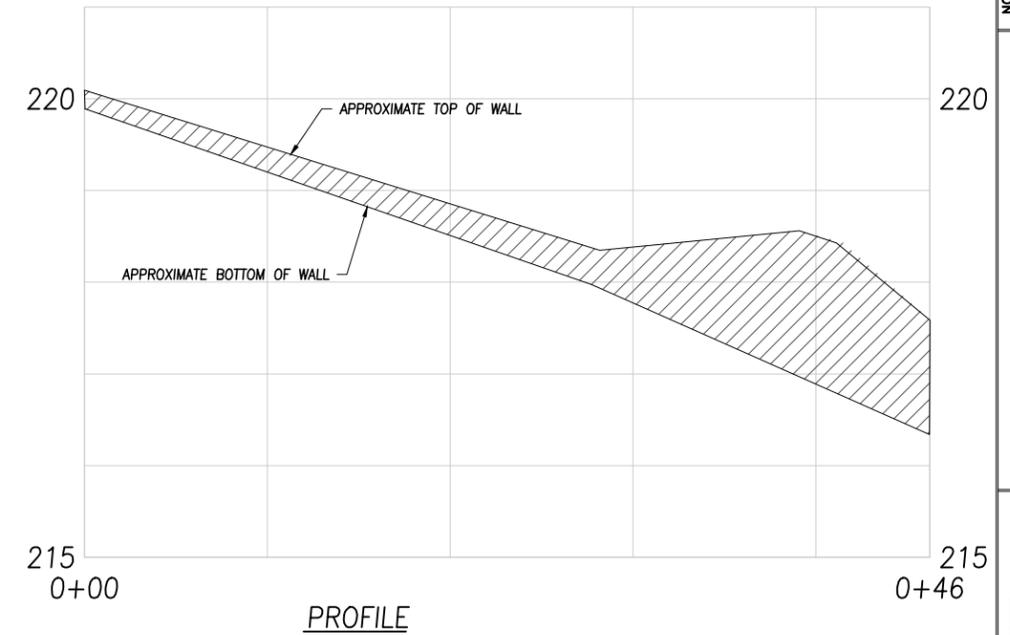
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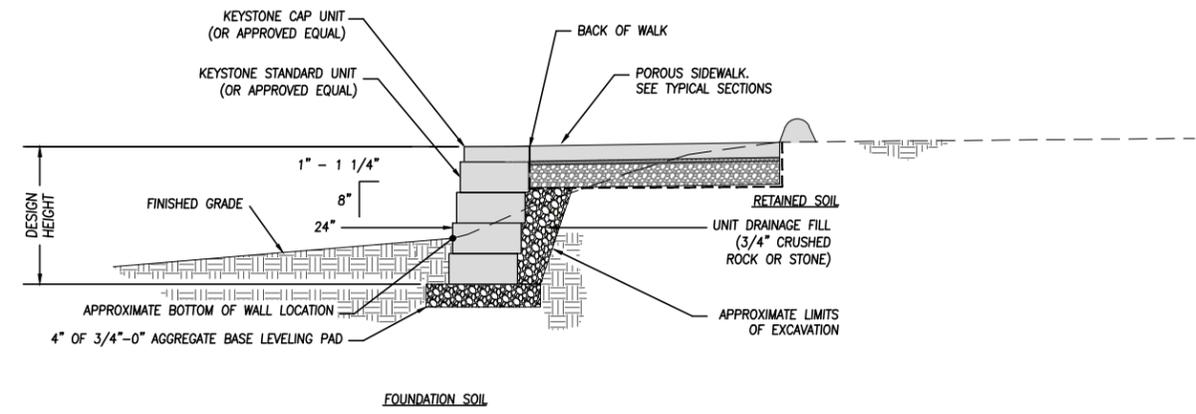
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1" = 1' VERT



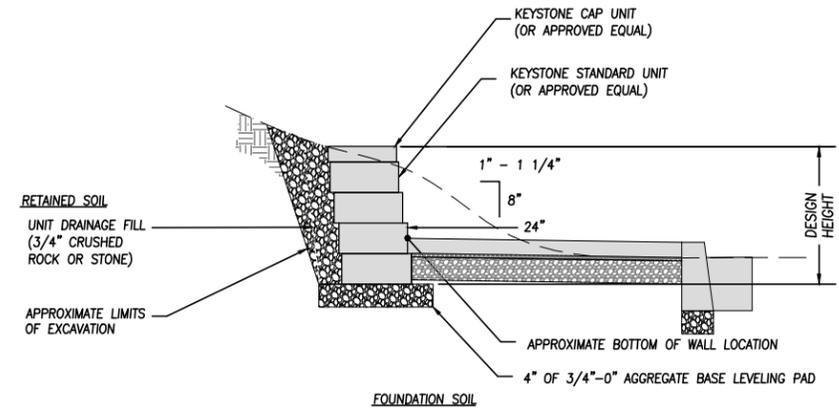
PROFILE
SCALE: 1" = 5' HORIZ
1" = 1' VERT



PROFILE
SCALE: 1" = 5' HORIZ
1" = 1' VERT



TYPICAL GRAVITY BLOCK WALL INSECTION - IN FILL
NTS



TYPICAL GRAVITY BLOCK WALL SECTION - IN CUT
NTS

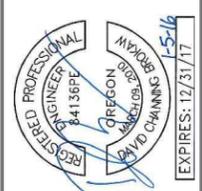
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DESIGNED BY: DB
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WS

ONE INCH AT FULL SCALE.
IF NOT ONE INCH ADJUST
SCALE ACCORDINGLY

wallis engineering
PROJECT NO: 1388A
DATE: 01/2016

CITY OF TIGARD
SIDEWALK INFILL
SW NORTH DAKOTA STREET
& SW 95TH AVENUE



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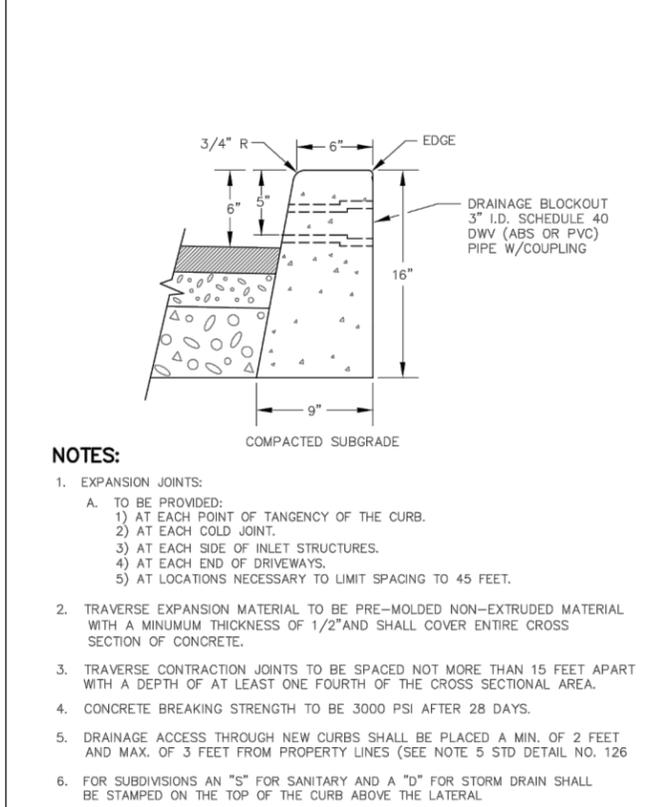
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DETAILS I

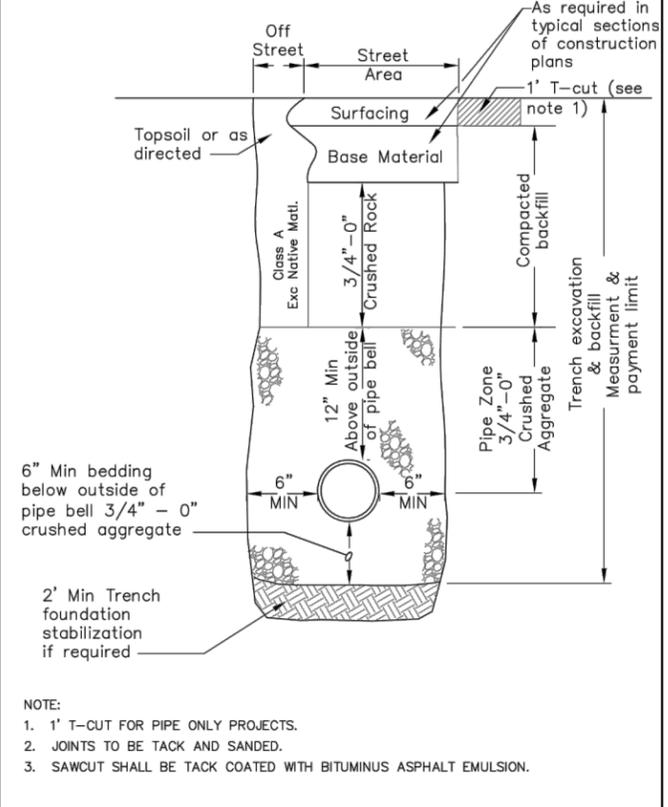
wallis engineering
 PROJECT NO: 1388A
 DATE: 01/2016

CITY OF TIGARD
 SIDEWALK INFILL
 SW NORTH DAKOTA STREET
 & SW 95TH AVENUE

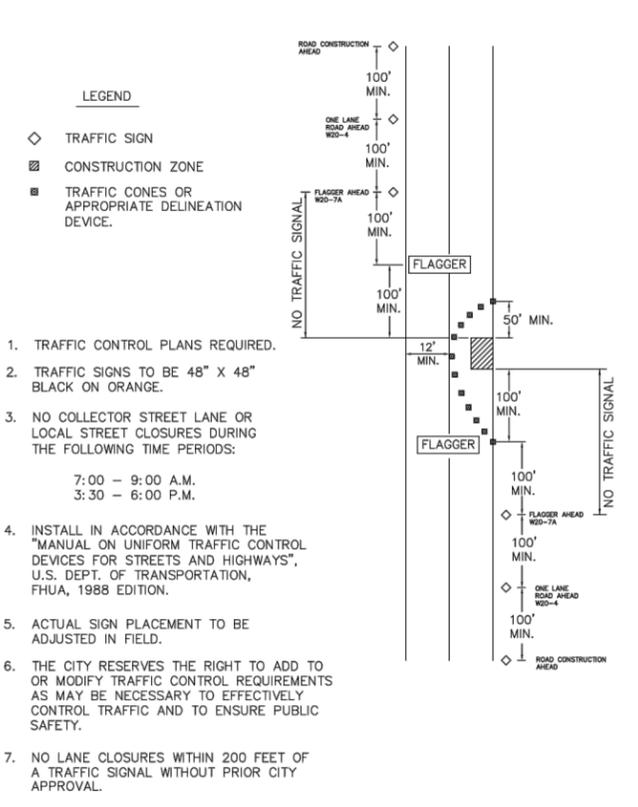
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D1
 13 OF 19



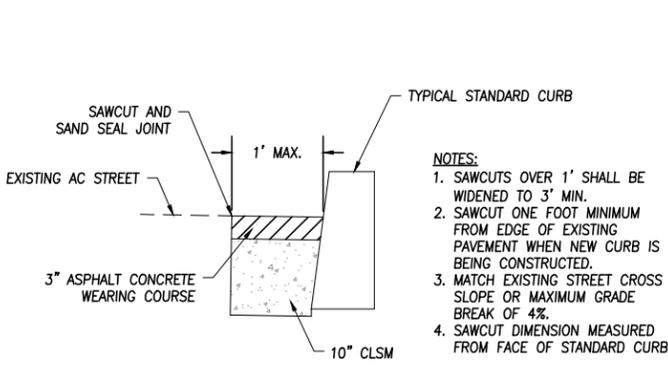
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| CITY OF TIGARD ENGINEERING DIVISION PUBLIC WORKS DEPARTMENT 3125 S.W. HALL BLVD. TIGARD, OREGON 97223 VOICE: (503) 639-4071 FAX: (503) 684-7297 | APPROVED BY: MICHAEL A. STONE, P.E. CITY ENGINEER JANUARY 2013 APPROVAL DATE | STANDARD CURB | NO SCALE DWG. NO. 125 |
|---|---|----------------------|---------------------------------|



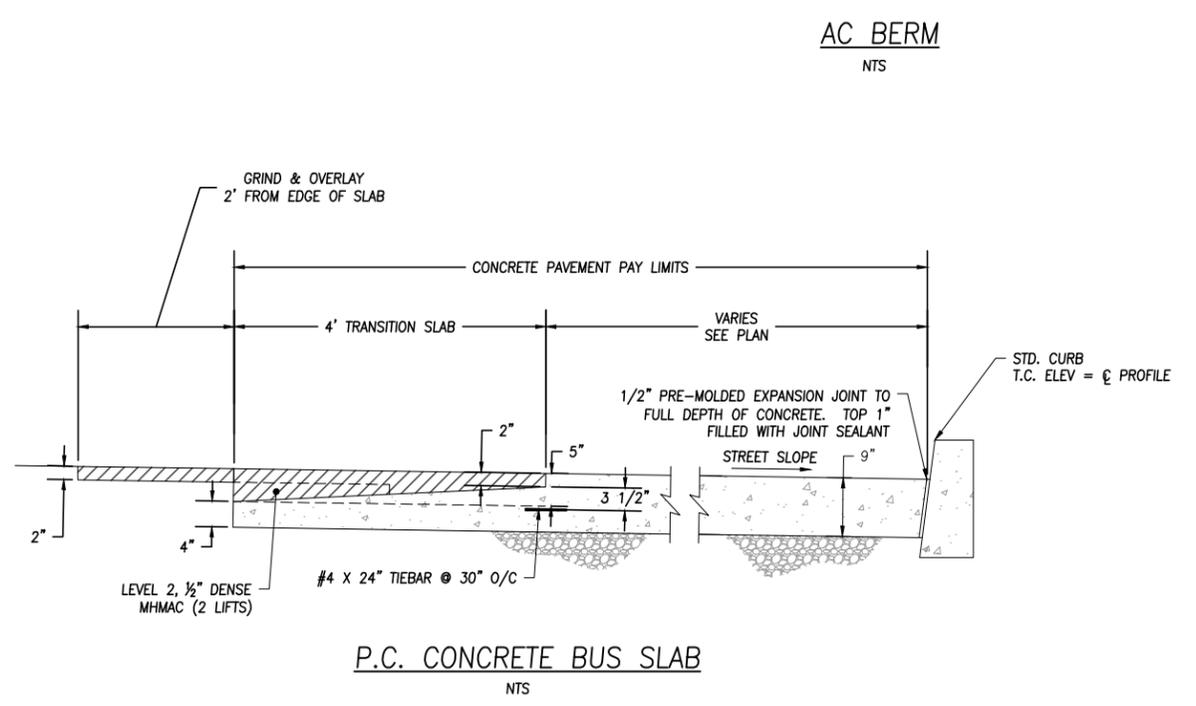
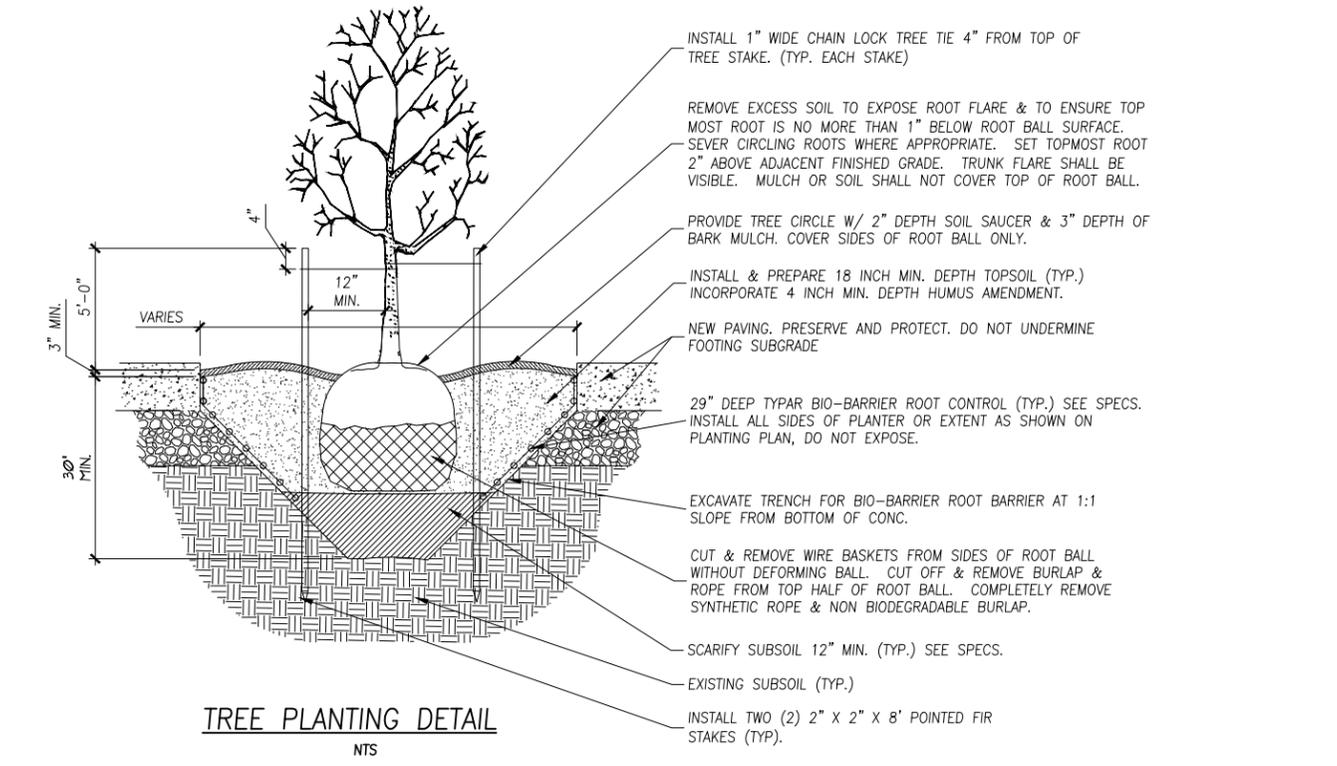
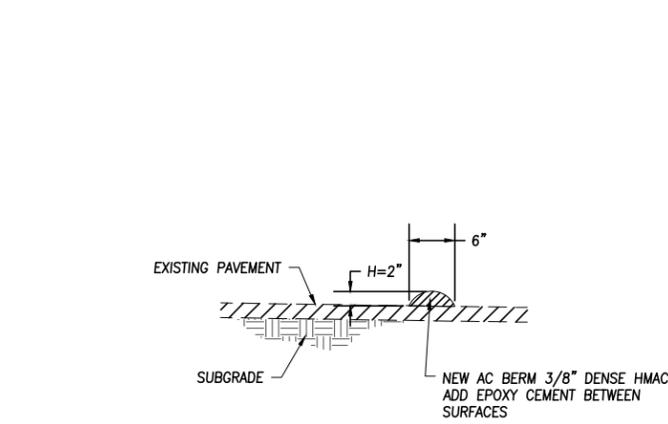
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| CITY OF TIGARD ENGINEERING DIVISION PUBLIC WORKS DEPARTMENT 3125 S.W. HALL BLVD. TIGARD, OREGON 97223 VOICE: (503) 639-4071 FAX: (503) 684-7297 | APPROVED BY: MICHAEL A. STONE, P.E. CITY ENGINEER JANUARY 2013 APPROVAL DATE | TRENCH BACKFILL | NO SCALE DWG. NO. 180 |
|---|---|------------------------|---------------------------------|



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| CITY OF TIGARD ENGINEERING DIVISION CAPITAL CONSTRUCTION AND TRANSPORTATION DIVISION 3125 S.W. HALL BLVD. TIGARD, OREGON 97223 VOICE: (503) 639-4071 FAX: (503) 684-7297 | APPROVED BY: AGUSTIN P. DUENAS, P.E. CITY ENGINEER AUGUST 2009 APPROVAL DATE | TYPICAL TRAFFIC CONTROL PLAN | NO SCALE DWG. NO. 190 |
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ASPHALT CONCRETE PAVEMENT REPAIR ADJACENT TO CURB
 NTS



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| DATE | |
| BY | |
| REVISION | |
| NO. | |

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| DESIGNED BY | DB |
| DRAWN BY | TS/CK |
| SCALE | 1" = 1' |
| SCALE | IF NOT ONE INCH ADJUST SCALE ACCORDINGLY |

DETAILS II

ASPHALT CONCRETE
P.C. CONCRETE

DRAINAGE CURBS
DRAINAGE CURBS UNDER GUARDRAIL

GENERAL NOTES FOR ALL DETAILS:
 1. For P.C. concrete drainage curbs, construct expansion joints at 200' maximum spacing, and at points of tangency.
 2. For P.C. concrete drainage curbs, construct contraction joints at 15' maximum spacing.
 3. Dimensions are nominal, vary to conform with curb machine approved by the engineer.
 4. When bonding to dense graded A.C. pvt., apply epoxy cement between surfaces.
 5. When drainage curb is required, curb alignment shall be the same as face of guardrail, as shown above. When a run of drainage curb, or any part thereof, is placed under guardrail, curb height shall be 4".
 6. For other curb types, see Std. Drg. RD700.
 7. For guardrail details not shown, see Std. Drg. RD400.

Effective Date: June 1, 2015 - November 30, 2015

PERPENDICULAR SIDEWALK RAMP DETAIL
PARALLEL SIDEWALK RAMP DETAIL
PERPENDICULAR SIDEWALK RAMP DETAIL (THROUGH BUFFER STRIP)

PERPENDICULAR SIDEWALK RAMP DETAIL (WITH SINGLE FLARE)

COMBINATION SIDEWALK RAMP DETAIL

PLACEMENT ON SIDEWALK RAMP
PLACEMENT ON PUBLIC TRANSPORTATION PLATFORM
PLACEMENT ON CROSSING ISLAND
PLACEMENT AT RAIL CROSSING

TRUNCATED DOME DETAIL
TRUNCATED DOME PATTERN

TRUNCATED DOME DETECTABLE WARNING SURFACE

GENERAL NOTES FOR ALL DETAILS:
 1. Truncated dome detectable warning surface details & locations are based on United States Access Board Standards.
 2. See Std. Drgs. RD700 & RD701 for curbs. See Std. Drg. RD720 for sidewalks. See Std. Drgs. TM503 & TM530 for crosswalk markings, widths, etc.
 3. See Std. Drg. RD705 for islands.
 4. Place truncated dome detectable warning surface in the lower 2' adjacent to traffic of throat of ramp only, unless otherwise shown. Arrange domes using square in-line pattern only. Color to be safety yellow if no color specified in construction note. All products on an installation to be identical.
 5. Where public transportation stations (rail, bus, etc.) use platform boarding, truncated dome detectable warning surface shall be placed along the full edge length of the station, when not protected by platform screens or guards.
 6. Truncated dome detectable warning surface shall be used where the pedestrian access route meets the street, in the following locations:
 a) Sidewalk ramps (See Std. Drgs. RD755, RD756, & RD757).
 b) Crossing islands (Accessible Route Islands), (See Std. Drg. RD710).
 c) Rail crossings (See detail).
 7. Only use details allowed by jurisdiction.
 8. See project plans for details not shown.

Effective Date: June 1, 2015 - November 30, 2015

POST MOUNTING SOCKET
SINGLE SUPPORT
MULTIPLE SUPPORT

DETAIL A
DETAIL B

ADAPTOR PLATE
SIZE 1 & 1/4 MOUNTING BRACKET
SIZE 2 MOUNTING BRACKET WITH ADAPTOR PLATE

TABLE A
V-LOC POST ANCHOR USE CHART

GENERAL NOTES FOR ALL DETAILS:
 1. Angle connections to be parallel to traffic flow for Size 2 mailbox mounted on single post.
 2. All holes in the tube support frame are to be predrilled by the manufacturer.
 3. Size 2 mailbox mounted on a multiple support requires 2 each 3/8" dia. x 1/2" galv. bolts with lock washers and nuts to attach the adaptor plate to the mounting bracket. The unit will then require 4 angle connections to attach to the formed tube support frame. See Detail A.
 4. Provide concrete collar when any of the following conditions exist:
 a) when required in Table A.
 b) when required by project plans.
 c) as directed by the Engineer.
 Concrete collar, when required, to be poured in place after V-Loc post anchor has been installed, level and plumb. Do not excavate below bottom of V-Loc post anchor. Care shall be taken that no concrete is placed within anchor.
 5. Other proprietary products available as listed in ODOT's GPL.
 6. For mailbox installation locations, see Std. Drg. RD101 and project plans.
 7. For Newspaper Box Mounting Detail, see Std. Drg. RD101.
 8. Mounting height (H) shall be 42" nominal, measured from vehicle driving surface.

Effective Date: June 1, 2015 - November 30, 2015

PERPENDICULAR SIDEWALK RAMP DETAIL
PARALLEL SIDEWALK RAMP DETAIL
PERPENDICULAR SIDEWALK RAMP DETAIL (THROUGH BUFFER STRIP)

PERPENDICULAR SIDEWALK RAMP DETAIL (WITH SINGLE FLARE)

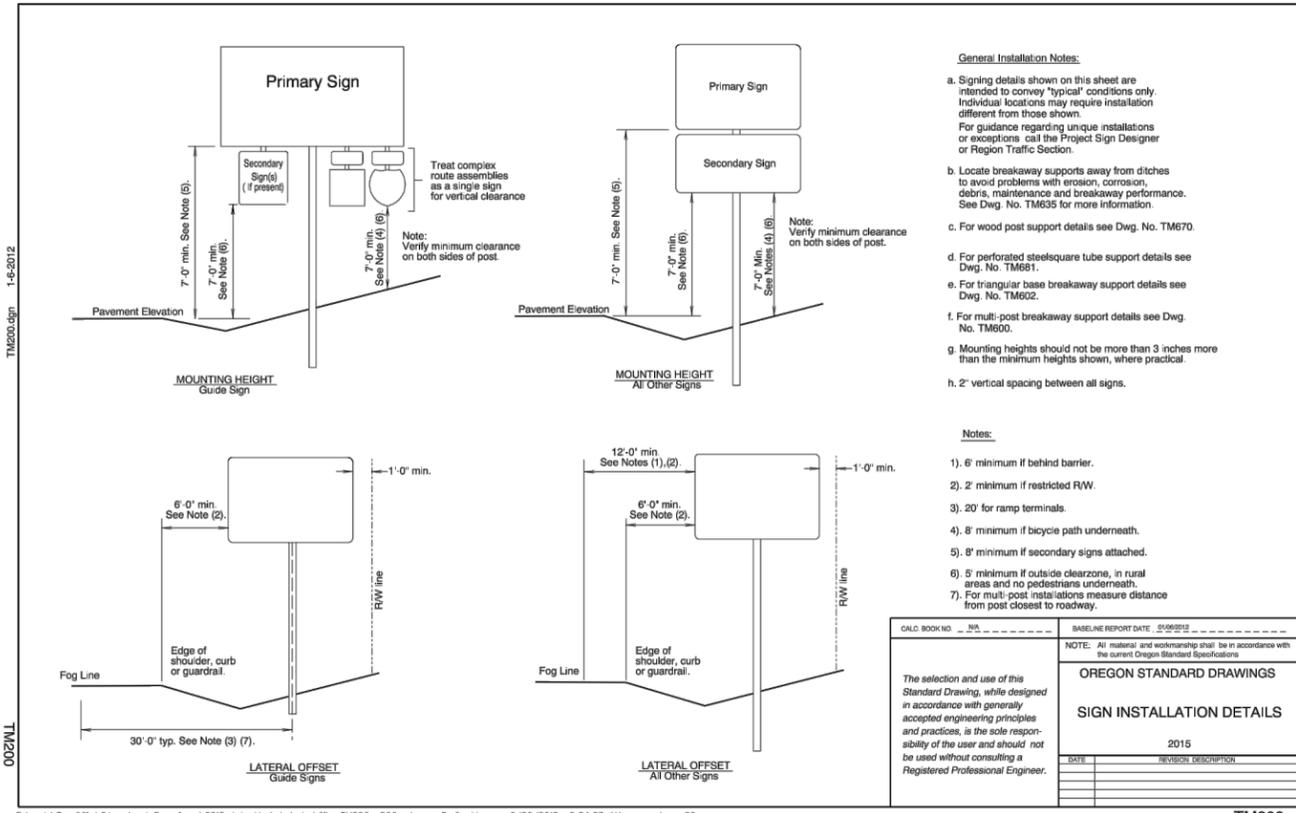
COMBINATION SIDEWALK RAMP DETAIL

TRUNCATED DOME DETAIL
TRUNCATED DOME PATTERN

TRUNCATED DOME DETECTABLE WARNING SURFACE

GENERAL NOTES FOR ALL DETAILS:
 1. Sidewalk ramp details are based on United States Access Board Standards.
 2. See Std. Drgs. RD700 & RD701 for curbs. See Std. Drg. RD720 for sidewalks. See Std. Drgs. TM503 & TM530 for crosswalk markings, widths, etc.
 3. Tooled joints are required at all sidewalk ramp slope break lines.
 4. Sidewalk curb ramp slopes shown are relative to the true level horizon (Zero bubble).
 5. Place truncated dome detectable warning surface in the lower 2' adjacent to traffic of throat of ramp only. For details not shown, see Std. Drg. RD759.
 6. Side flares that are not part of the path of travel may be any slope.
 7. Sidewalk flare is not necessary where the ramp is protected from pedestrian cross-travel.
 8. For the purpose of this drawing, a curb ramp is considered "perpendicular" if the angle between the longitudinal axis of the ramp and a line tangent to the curb at the ramp center is 75° or greater.
 9. Ramps for paths intersecting a roadway should be full width of path, excluding flares. When a ramp is used to provide bicycle access from a roadway to a sidewalk, the ramp should be 8' wide.
 10. For sidewalk ramp placement options, see Std. Drgs. RD756 & RD757.
 11. Check the gutter flow depth at ramp locations to assure that the design flood does not overtop the back of sidewalk at ramp. If overtopping occurs place an inlet at upstream side of ramp or perform other approved design mitigation.
 12. Only use details allowed by jurisdiction.
 13. See project plans for details not shown.

Effective Date: June 1, 2015 - November 30, 2015



CALC BOOK NO. _____

BASELINE REPORT DATE: 01/09/2012

NOTE: All material and workmanship shall be in accordance with the current Oregon Standard Specifications

OREGON STANDARD DRAWINGS

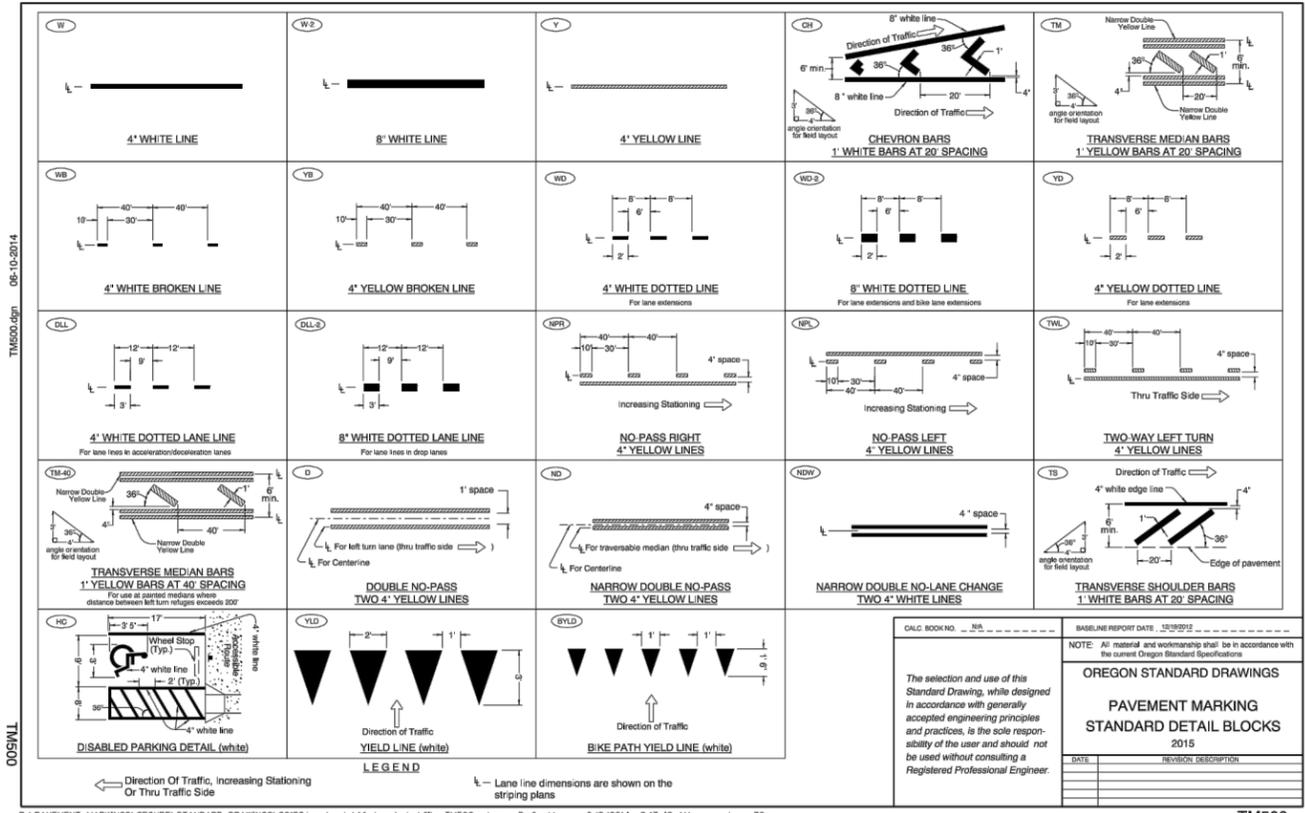
SIGN INSTALLATION DETAILS

2015

| DATE | REVISION DESCRIPTION |
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The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without consulting a Registered Professional Engineer.

Effective Date: December 1, 2015 - May 31, 2016 TM200



CALC BOOK NO. _____

BASELINE REPORT DATE: 12/09/2012

NOTE: All material and workmanship shall be in accordance with the current Oregon Standard Specifications

OREGON STANDARD DRAWINGS

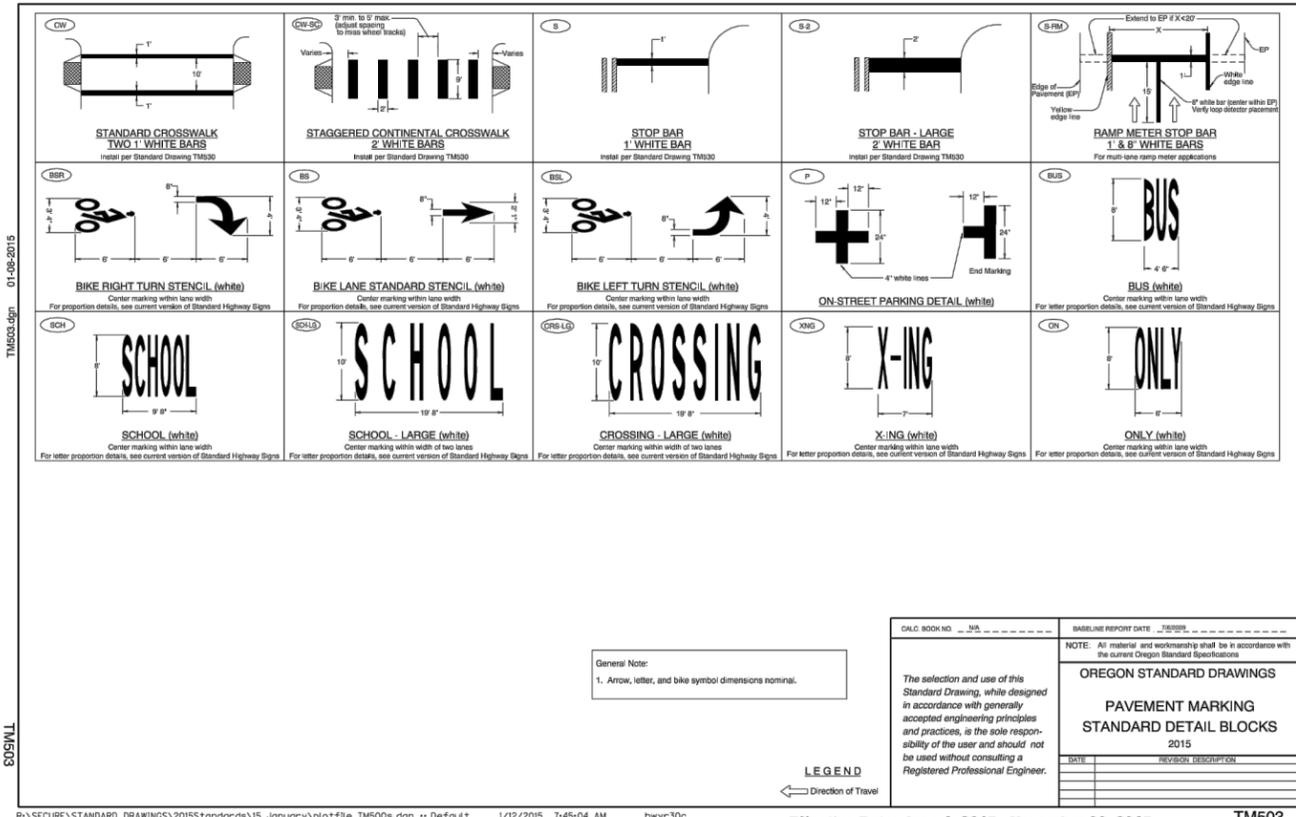
PAVEMENT MARKING STANDARD DETAIL BLOCKS

2015

| DATE | REVISION DESCRIPTION |
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The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without consulting a Registered Professional Engineer.

Effective Date: February 1, 2015 - May 31, 2015 TM500



CALC BOOK NO. _____

BASELINE REPORT DATE: 12/09/2012

NOTE: All material and workmanship shall be in accordance with the current Oregon Standard Specifications

OREGON STANDARD DRAWINGS

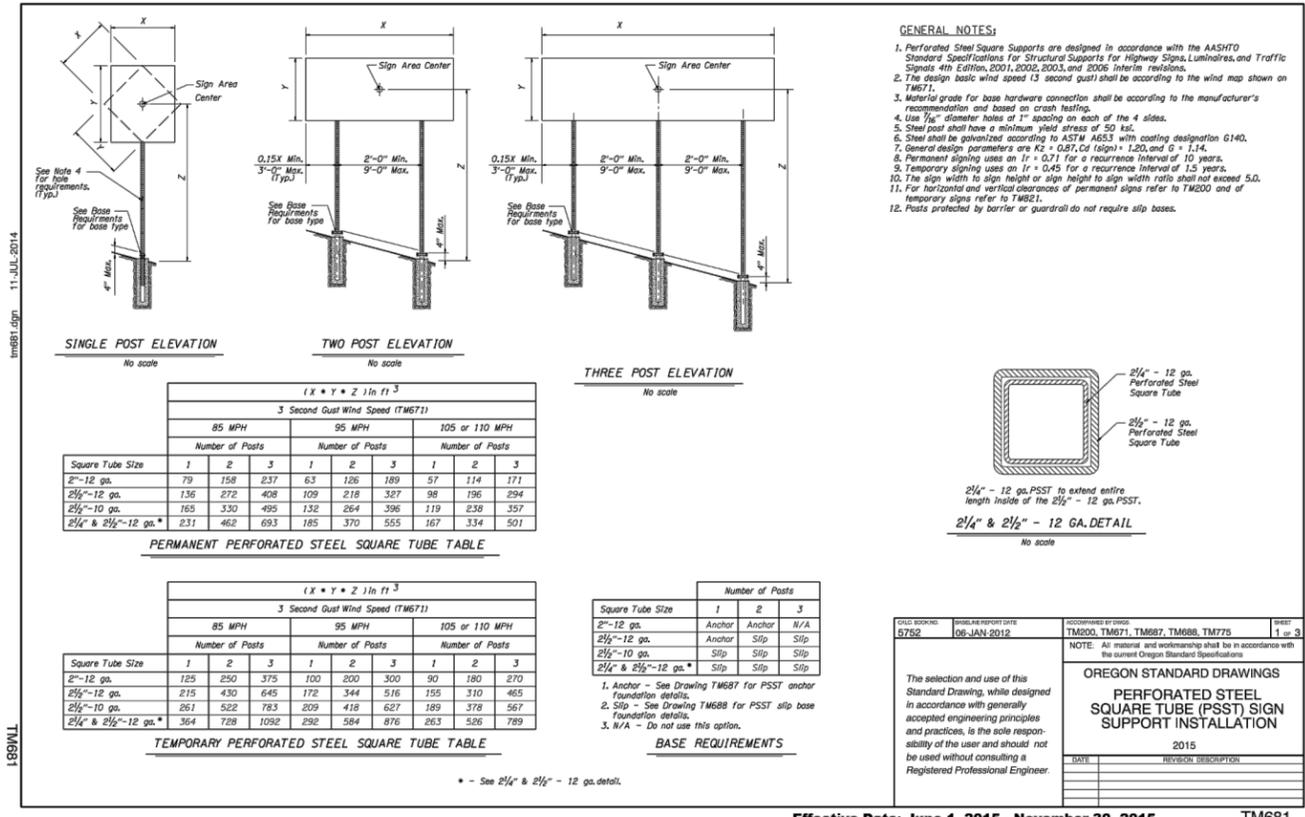
PAVEMENT MARKING STANDARD DETAIL BLOCKS

2015

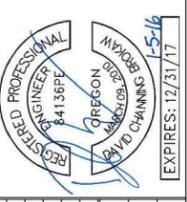
| DATE | REVISION DESCRIPTION |
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The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without consulting a Registered Professional Engineer.

Effective Date: June 1, 2015 - November 30, 2015 TM503



Effective Date: June 1, 2015 - November 30, 2015 TM681



| NO. | REVISION | BY | DATE |
|-----|----------|----|------|
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DESIGNED BY: DB
 DRAWN BY: TS/CK
 SCALE: 1" = 10' AT FULL SCALE. IF NOT ONE INCH SCALE ACCORDINGLY.

EXPIRES: 12/31/17

DETAILS III

wallis engineering
 300.695.7041
 3000 N.W. 10th Ave., Portland, OR 97228

DATE: 01/2016
 PROJECT NO: 1388A

CITY OF TIGARD
 SIDEWALK INFILL
 SW NORTH DAKOTA STREET
 & SW 95TH AVENUE

TIGARD

CALC BOOK NO. _____

BASELINE REPORT DATE: 08-JAN-2012

NOTE: All material and workmanship shall be in accordance with the current Oregon Standard Specifications

OREGON STANDARD DRAWINGS

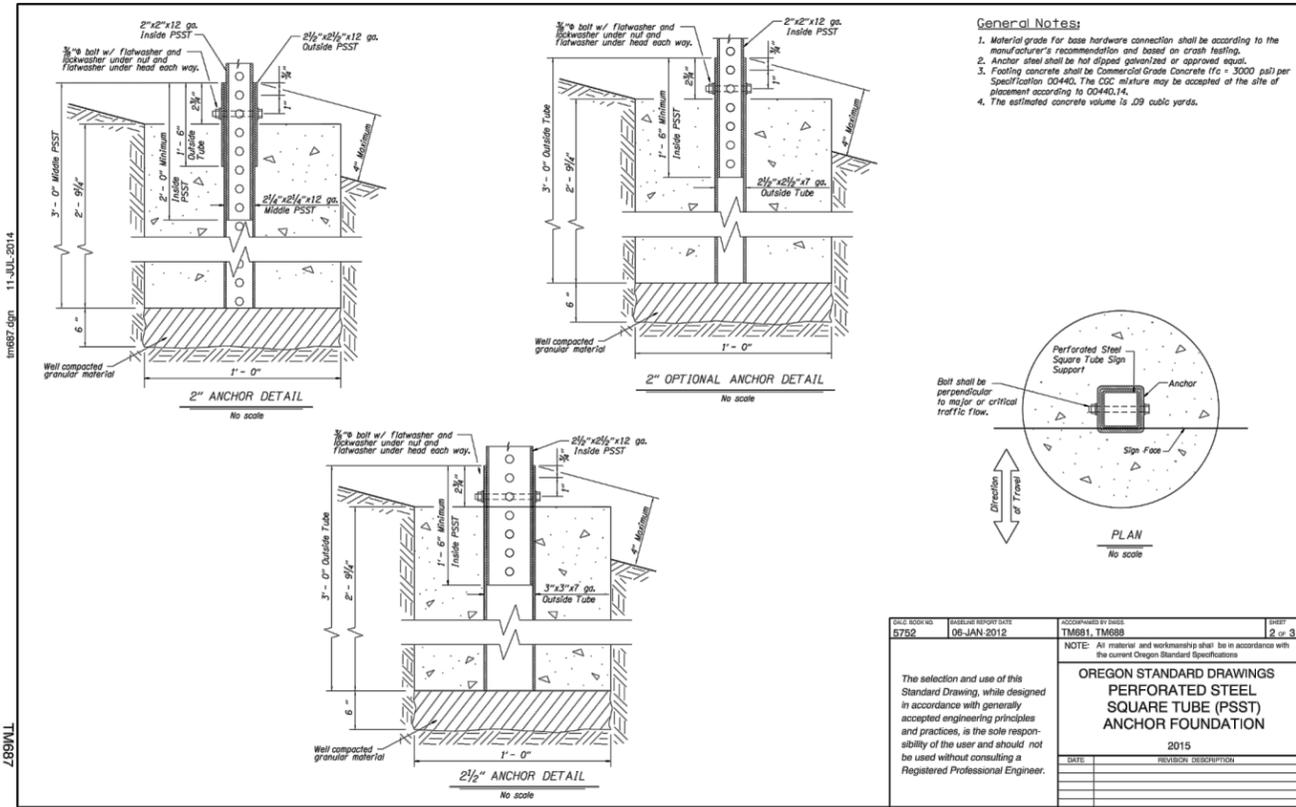
PERFORATED STEEL SQUARE TUBE (PSST) SIGN SUPPORT INSTALLATION

2015

| DATE | REVISION DESCRIPTION |
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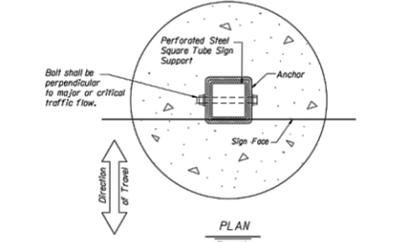
The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without consulting a Registered Professional Engineer.

DRAWING NO: D3
 15 of 19



General Notes:

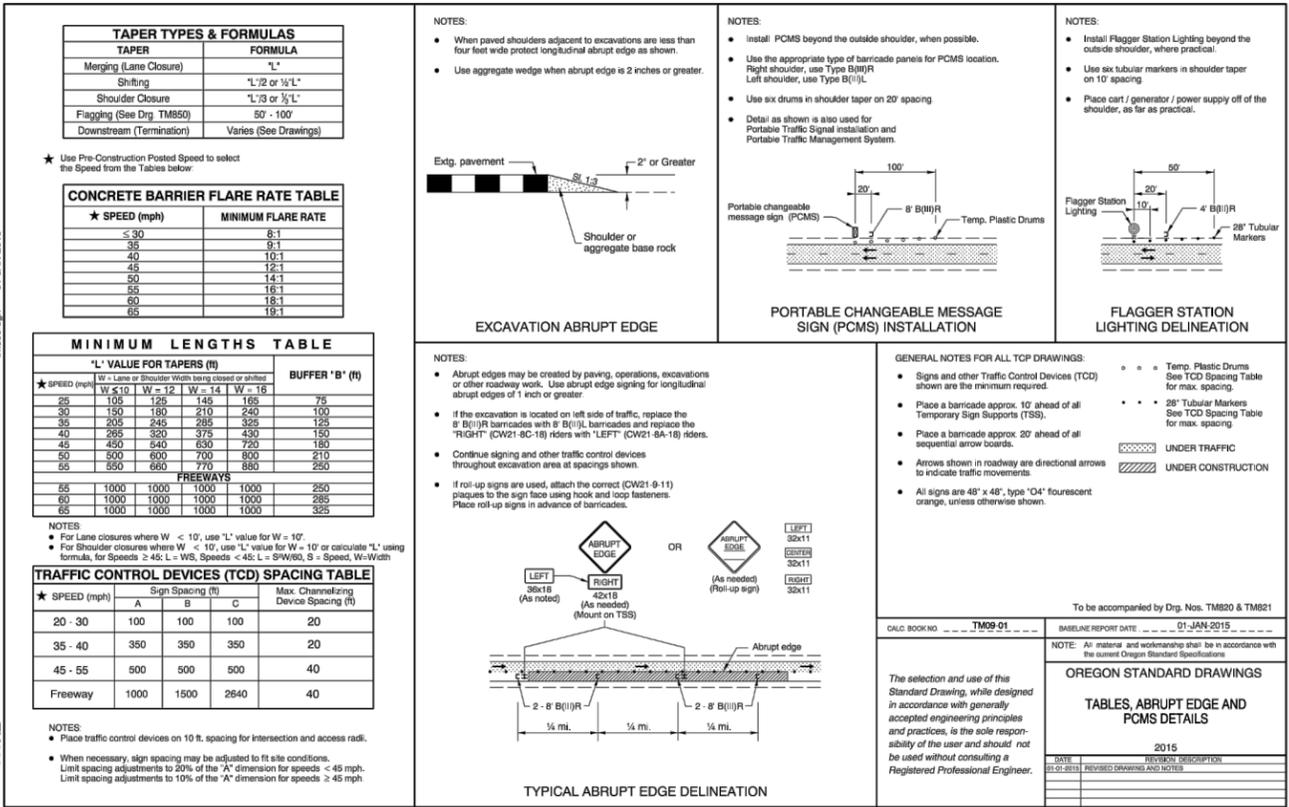
1. Material grade for base hardware connection shall be according to the manufacturer's recommendation and based on crash testing.
2. Anchor steel shall be hot dipped galvanized or approved equal.
3. Footing concrete shall be Commercial Grade Concrete (f_c = 3000 psi) per Specification DD-440. The COC mixture may be accepted at the site of placement according to DD-441.4.
4. The estimated concrete volume is .09 cubic yards.



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| DATE | REVISION DESCRIPTION |
| 01-01-2015 | REVISED DRAWINGS |
| 01-01-2015 | REVISED DRAWINGS |

OREGON STANDARD DRAWINGS
PERFORATED STEEL SQUARE TUBE (PSST) ANCHOR FOUNDATION
2015

Effective Date: June 1, 2015 - November 30, 2015 TM687



TAPER TYPES & FORMULAS

| TAPER | FORMULA |
|---------------------------|-----------------------|
| Merging (Lane Closure) | "L" |
| Shifting | "L/2 or 1/2 L" |
| Shoulder Closure | "L/3 or 1/3 L" |
| Flagging (See Drg. TM650) | 50' - 100' |
| Downstream (Termination) | Varies (See Drawings) |

CONCRETE BARRIER FLARE RATE TABLE

| SPEED (mph) | MINIMUM FLARE RATE |
|-------------|--------------------|
| ≤ 30 | 8:1 |
| 35 | 9:1 |
| 40 | 10:1 |
| 45 | 12:1 |
| 50 | 14:1 |
| 55 | 16:1 |
| 60 | 18:1 |
| 65 | 19:1 |

MINIMUM LENGTHS TABLE

| SPEED (mph) | W ≤ 10 | W = 12 | W = 14 | W = 16 | W = 18 | W = 20 |
|-------------|--------|--------|--------|--------|--------|--------|
| 25 | 105 | 125 | 145 | 165 | 185 | 205 |
| 30 | 150 | 180 | 210 | 240 | 270 | 300 |
| 35 | 205 | 245 | 285 | 325 | 365 | 405 |
| 40 | 265 | 320 | 375 | 430 | 485 | 540 |
| 45 | 330 | 400 | 470 | 540 | 610 | 680 |
| 50 | 400 | 480 | 560 | 640 | 720 | 800 |
| 55 | 475 | 560 | 650 | 740 | 830 | 920 |
| 60 | 550 | 640 | 730 | 820 | 910 | 1000 |
| 65 | 625 | 720 | 810 | 900 | 990 | 1080 |

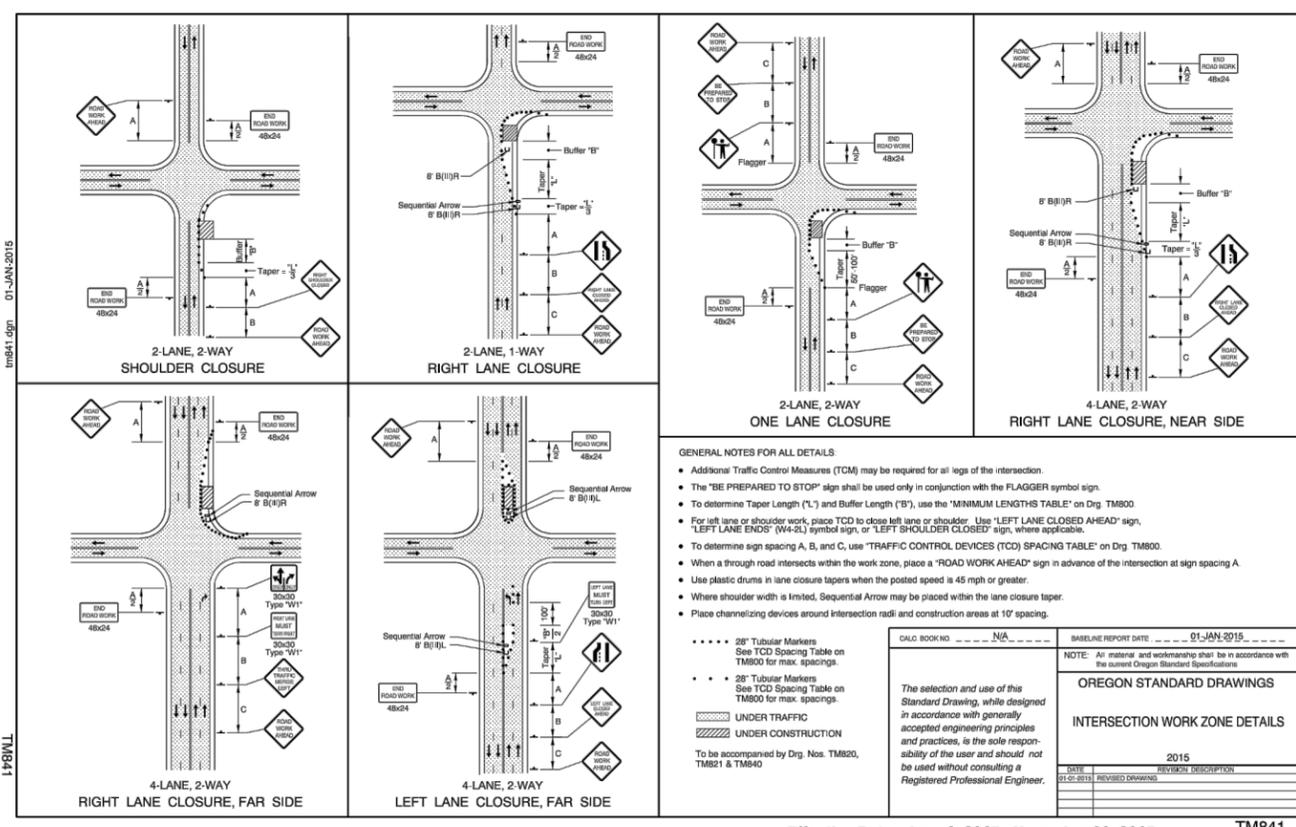
TRAFFIC CONTROL DEVICES (TCD) SPACING TABLE

| SPEED (mph) | A | B | C | Max. Channelizing Device Spacing (ft) |
|-------------|------|------|------|---------------------------------------|
| 20-30 | 100 | 100 | 100 | 20 |
| 35-40 | 350 | 350 | 350 | 20 |
| 45-55 | 500 | 500 | 500 | 40 |
| Freeway | 1000 | 1500 | 2640 | 40 |

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| DATE | REVISION DESCRIPTION |
| 01-01-2015 | REVISED DRAWINGS |
| 01-01-2015 | REVISED DRAWINGS |

OREGON STANDARD DRAWINGS
TABLES, ABRUPT EDGE AND PCMS DETAILS
2015

Effective Date: June 1, 2015 - November 30, 2015 TM800

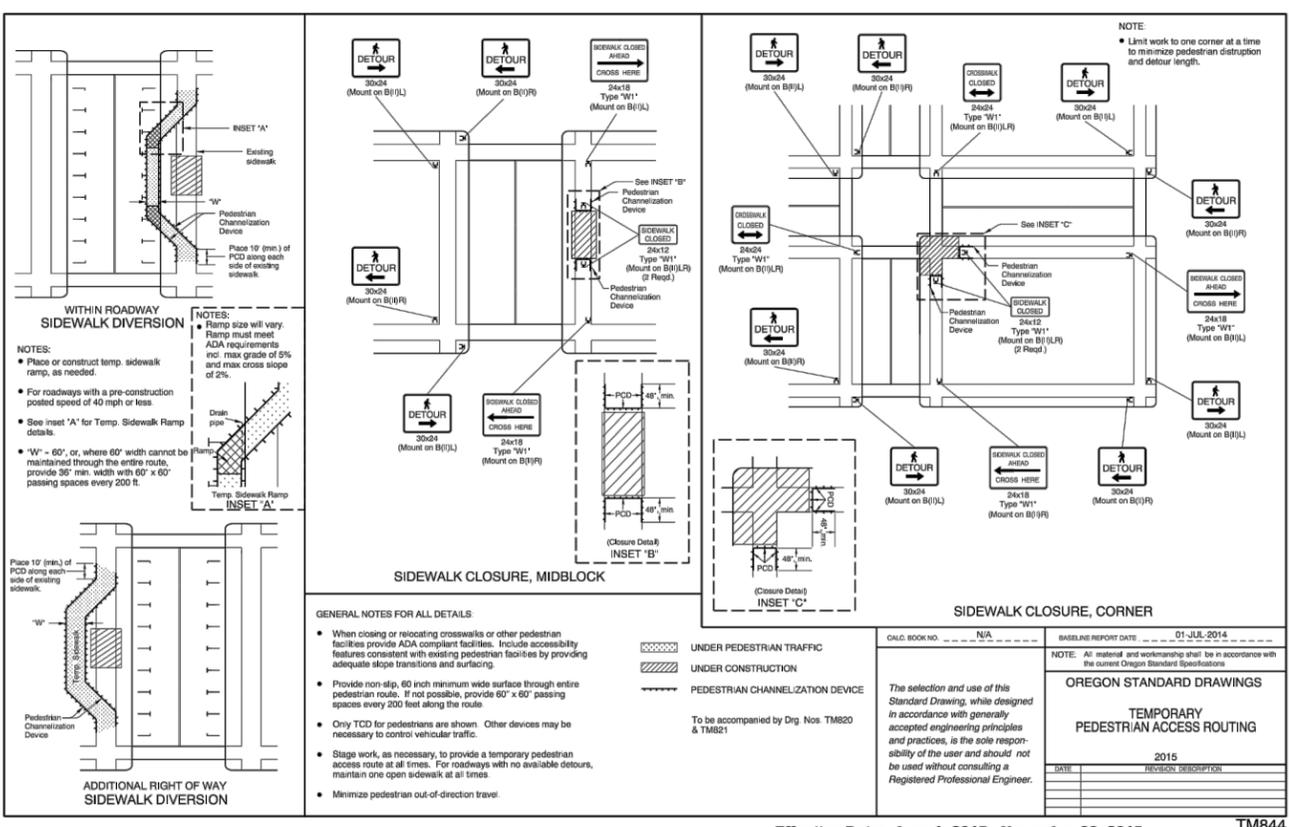


GENERAL NOTES FOR ALL DETAILS:

- Additional Traffic Control Measures (TCM) may be required for all legs of the intersection.
- The "BE PREPARED TO STOP" sign shall be used only in conjunction with the FLAGGER symbol sign.
- To determine Taper Length ("L") and Buffer Length ("B"), use the "MINIMUM LENGTHS TABLE" on Drg. TM800.
- For left lane or shoulder work, place TCD to close left lane or shoulder. Use "LEFT LANE CLOSED AHEAD" sign, "LEFT LANE ENDS" (W4-4) symbol sign, or "LEFT SHOULDER CLOSED" sign, where applicable.
- To determine sign spacing A, B, and C, use "TRAFFIC CONTROL DEVICES (TCD) SPACING TABLE" on Drg. TM800.
- When a through road intersects within the work zone, place a "ROAD WORK AHEAD" sign in advance of the intersection at sign spacing A.
- Use plastic drums in lane closure tapers when the posted speed is 45 mph or greater.
- Where shoulder width is limited, Sequential Arrow may be placed within the lane closure taper.
- Place channelizing devices around intersection radii and construction areas at 10' spacing.

OREGON STANDARD DRAWINGS
INTERSECTION WORK ZONE DETAILS
2015

Effective Date: June 1, 2015 - November 30, 2015 TM841



GENERAL NOTES FOR ALL DETAILS:

- Place or construct temp. sidewalk ramp, as needed.
- For roadways with a pre-construction posted speed of 40 mph or less.
- See inset "A" for Temp. Sidewalk Ramp details.
- "W" = 60', or where 60' width cannot be maintained through the entire route, provide 36" min. width with 60" x 60" passing spaces every 200 ft.

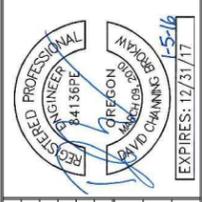
GENERAL NOTES FOR ALL DETAILS:

- When closing or relocating crosswalks or other pedestrian facilities provide ADA compliant facilities. Include accessibility features consistent with existing pedestrian facilities by providing adequate slope transitions and surfacing.
- Provide non-slip, 60 inch minimum wide surface through entire pedestrian route. If not possible, provide 60" x 60" passing spaces every 200 feet along the route.
- Only TCD for pedestrians are shown. Other devices may be necessary to control vehicular traffic.
- Stage work, as necessary, to provide a temporary pedestrian access route at all times. For roadways with no available detours, maintain an open sidewalk at all times.
- Minimize pedestrian out-of-direction travel.

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| DATE | REVISION DESCRIPTION |
| 01-01-2015 | REVISED DRAWINGS |
| 01-01-2015 | REVISED DRAWINGS |

OREGON STANDARD DRAWINGS
TEMPORARY PEDESTRIAN ACCESS ROUTING
2015

Effective Date: June 1, 2015 - November 30, 2015 TM844



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| DATE | BY | REVISION |
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DESIGNED BY: DB
DRAWN BY: TS/CK
SCALE: 1" = 10' AT FULL SCALE, IF NOT ONE INCH ADJUST SCALE ACCORDINGLY

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| DATE | REVISION DESCRIPTION |
| 01-01-2015 | REVISED DRAWINGS |
| 01-01-2015 | REVISED DRAWINGS |

OREGON STANDARD DRAWINGS
TABLES, ABRUPT EDGE AND PCMS DETAILS
2015

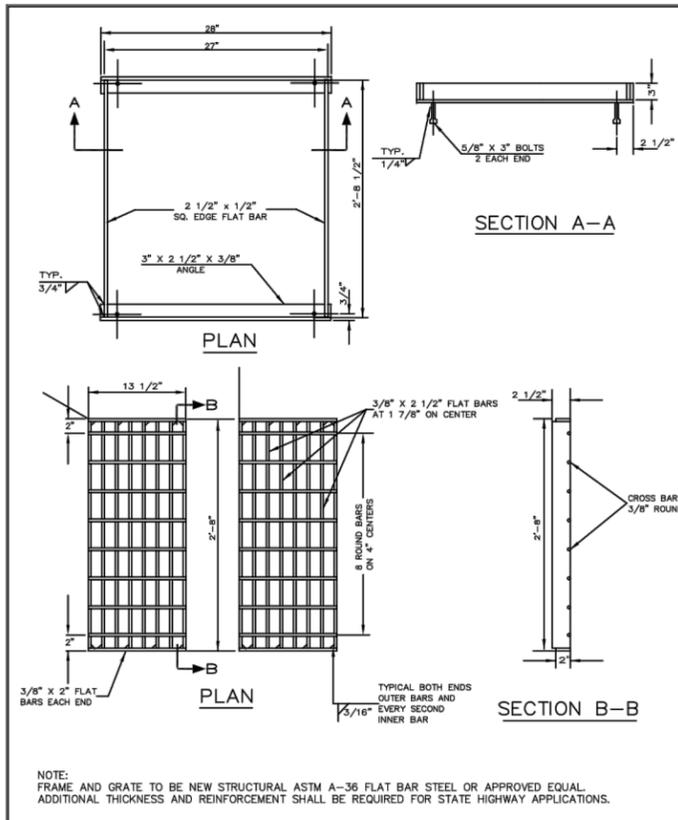
Effective Date: June 1, 2015 - November 30, 2015 TM800

wallis engineering
3800 NE 15th Ave, Tigard, OR 97138
503.695.7041

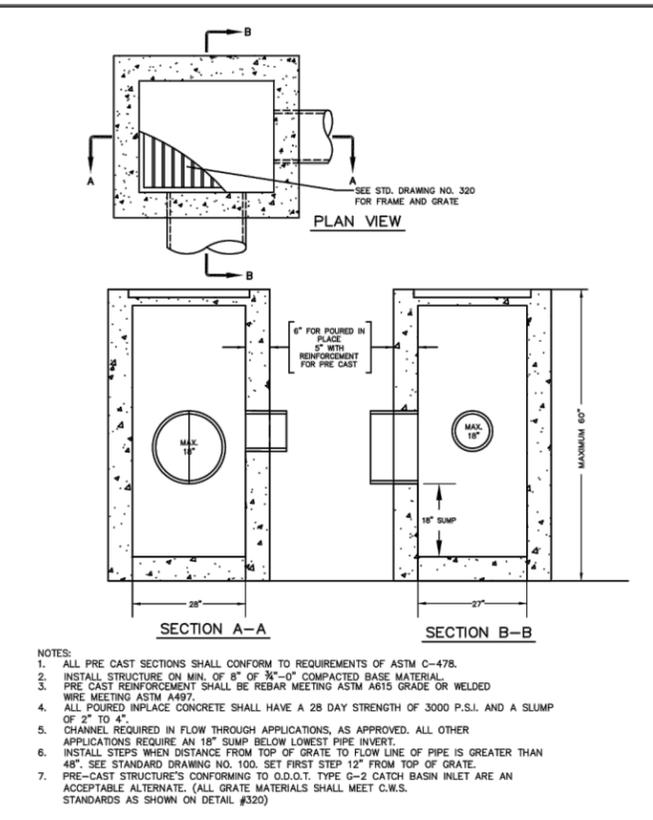
PROJECT NO: 1388A
DATE: 01/2016

CITY OF TIGARD
SIDEWALK INFILL
SW NORTH DAKOTA STREET
& SW 95TH AVENUE

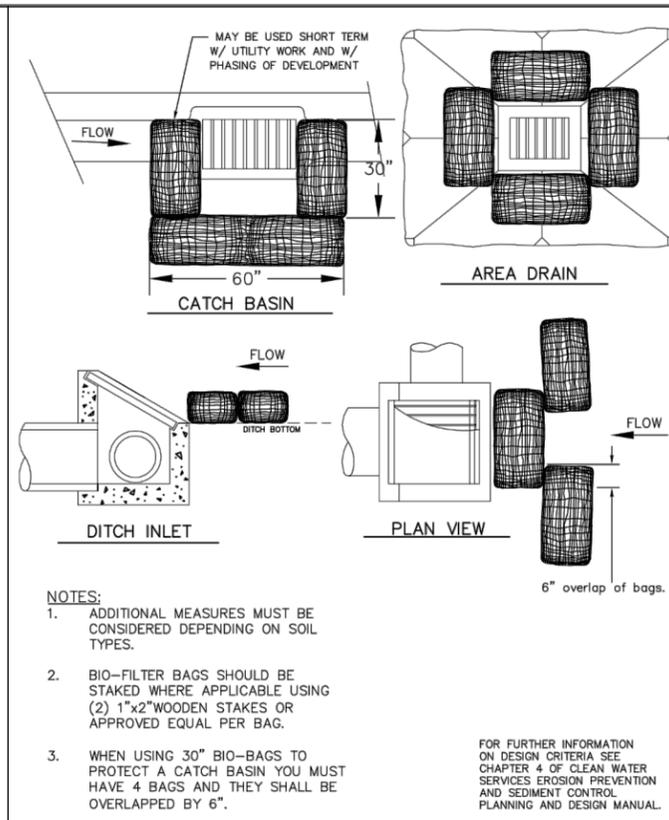
TIGARD



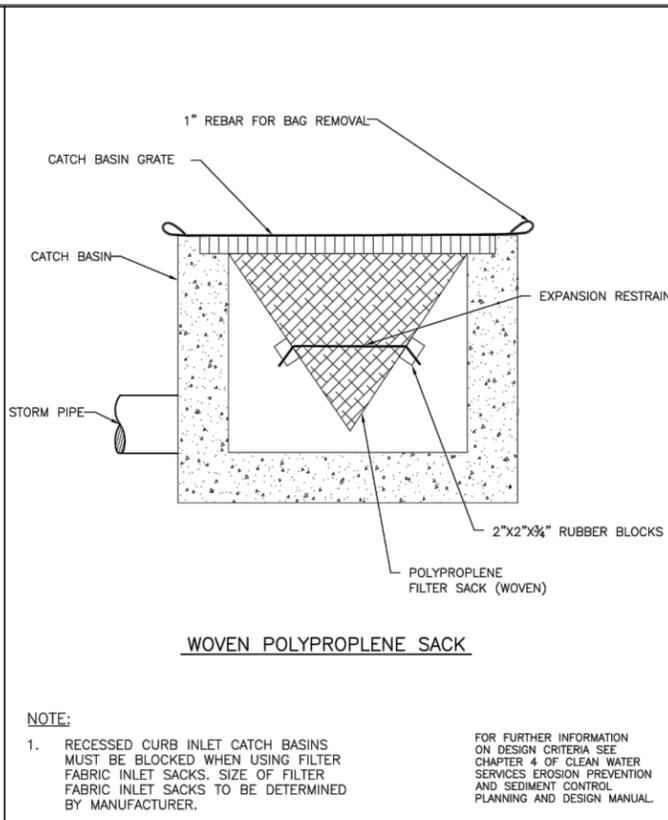
CATCH BASIN FRAME AND GRATE (CG-2)
DRAWING NO. 320 REVISED 12-06
CleanWater Services
Our commitment is clear.



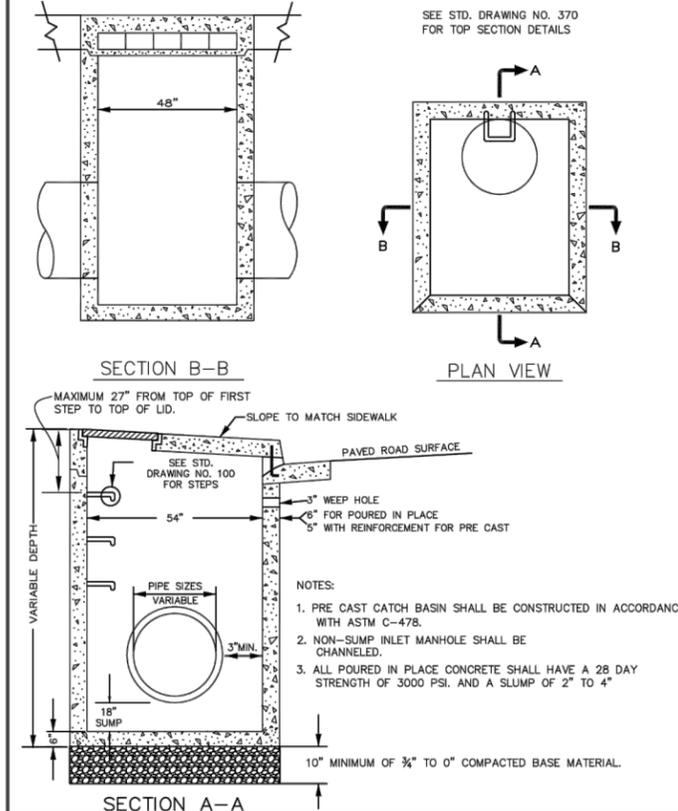
AREA DRAIN TYPE II
DRAWING NO. 380 REVISED 12-06
CleanWater Services
Our commitment is clear.



INLET PROTECTION TYPE 4
DRAWING NO. 915 REVISED 12-06
CleanWater Services
Our commitment is clear.



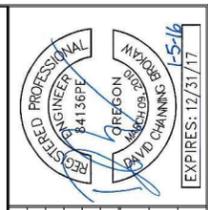
INLET PROTECTION TYPE 5
DRAWING NO. 920 REVISED 12-06
CleanWater Services
Our commitment is clear.



CURB INLET MANHOLE (CG-48 M.H.)
DRAWING NO. 350 REVISED 05-07
CleanWater Services
Our commitment is clear.

- STANDARD EROSION CONTROL NOTES FOR SITES LESS THAN 1 ACRE**
DRAWING NO. 945 REVISED 12-06
CleanWater Services
Our commitment is clear.
- WHEN RAINFALL AND RUNOFF OCCURS DAILY INSPECTIONS OF THE EROSION AND SEDIMENT CONTROLS AND DISCHARGE OUTFALLS MUST BE PROVIDED BY SOME ONE KNOWLEDGEABLE AND EXPERIENCED IN THE PRINCIPLES, PRACTICES, INSTALLATION, AND MAINTENANCE OF EROSION AND SEDIMENT CONTROLS WHO WORKS FOR THE PERMITTEE.
 - CONSTRUCTION ACTIVITIES MUST AVOID OR MINIMIZE EXCAVATION AND CREATION OF BARE GROUND FROM OCTOBER 1 THROUGH MAY 31 EACH YEAR.
 - DURING WET WEATHER PERIOD, TEMPORARY STABILIZATION OF THE SITE MUST OCCUR AT THE END OF EACH WORK DAY.
 - SEDIMENT CONTROLS MUST BE INSTALLED AND MAINTAINED ON ALL DOWN GRADIENT SIDES OF THE CONSTRUCTION SITE AT ALL TIMES DURING CONSTRUCTION. THEY MUST REMAIN IN PLACE UNTIL PERMANENT VEGETATION OR OTHER PERMANENT COVERING OF EXPOSED SOIL IS ESTABLISHED.
 - ALL ACTIVE INLETS MUST HAVE SEDIMENT CONTROLS INSTALLED AND MAINTAINED AT ALL TIMES DURING CONSTRUCTION. UNLESS OTHERWISE APPROVED, A SURFACE MOUNTED AND ATTACHABLE, U-SHAPED FILTER BAG IS REQUIRED FOR ALL CURB INLET CATCH BASINS.
 - SIGNIFICANT AMOUNTS OF SEDIMENT WHICH LEAVES THE SITE MUST BE CLEANED UP WITHIN 24 HOURS AND PLACED BACK ON THE SITE AND STABILIZED OR PROPERLY DISPOSED. THE CAUSE OF THE SEDIMENT RELEASE MUST BE FOUND AND PREVENTED FROM CAUSING A RECURRENCE OF THE DISCHARGE WITHIN THE SAME 24 HOURS. ANY IN-STREAM CLEAN UP OF SEDIMENT SHALL BE PERFORMED ACCORDING TO THE OREGON DEPARTMENT OF STATE LANDS REQUIRED TIME FRAME.
 - SEDIMENT MUST NOT BE INTENTIONALLY WASHED INTO STORM SEWERS, DRAINAGE WAYS, OR WATER BODIES.
 - SEDIMENT MUST BE REMOVED FROM BEHIND ALL SEDIMENT CONTROL MEASURES WHEN IT HAS REACHED A HEIGHT OF 1/3RD THE BARRIER HEIGHT, AND PRIOR TO THE CONTROL MEASURES REMOVAL.
 - CLEANING OF ALL STRUCTURES WITH SUMPS MUST OCCUR WHEN THE SEDIMENT RETENTION CAPACITY HAS BEEN REDUCED BY 50% AND AT COMPLETION OF PROJECT.
 - ANY USE OF TOXIC OR OTHER HAZARDOUS MATERIALS MUST INCLUDE PROPER STORAGE, APPLICATION, AND DISPOSAL.
 - THE PERMITTEE MUST PROPERLY MANAGE HAZARDOUS WASTES, USED OILS, CONTAMINATED SOILS, CONCRETE WASTE, SANITARY WASTE, LIQUID WASTE, OR OTHER TOXIC SUBSTANCES DISCOVERED OR GENERATED DURING CONSTRUCTION.
 - THE APPLICATION RATE OF FERTILIZERS USED TO REESTABLISH VEGETATION MUST FOLLOW MANUFACTURER'S RECOMMENDATIONS. NUTRIENT RELEASES TO SURFACE WATERS MUST BE MINIMIZED. TIME RELEASE FERTILIZERS SHOULD BE USED AND CARE SHOULD BE MADE IN APPLICATION OF FERTILIZERS WITHIN ANY WATER WAY RIPARIAN ZONE.
 - OWNER OR DESIGNATED PERSON SHALL BE RESPONSIBLE FOR PROPER INSTALLATION AND MAINTENANCE OF ALL EROSION AND SEDIMENT CONTROL MEASURES, IN ACCORDANCE WITH CURRENT CLEAN WATER SERVICES STANDARDS AND STATE, AND FEDERAL REGULATIONS.
 - PRIOR TO ANY LAND DISTURBING ACTIVITIES, THE BOUNDARIES OF THE CLEARING LIMITS, VEGETATED BUFFERS, AND ANY SENSITIVE AREAS SHOWN ON THIS PLAN SHALL BE CLEARLY DELINEATED IN THE FIELD. UNLESS OTHERWISE APPROVED, NO DISTURBANCE IS PERMITTED BEYOND THE CLEARING LIMITS. THE OWNER/PERMITTEE MUST MAINTAIN THE DELINEATION FOR THE DURATION OF THE PROJECT. VEGETATED CORRIDORS TO BE DELINEATED WITH ORANGE CONSTRUCTION FENCE OR APPROVED EQUAL.
 - PRIOR TO ANY LAND DISTURBING ACTIVITIES, THE BMPs THAT MUST BE INSTALLED ARE GRAVEL CONSTRUCTION ENTRANCE, PERIMETER SEDIMENT CONTROL, AND INLET PROTECTION. THESE BMPs MUST BE MAINTAINED FOR THE DURATION OF THE PROJECT.
 - IF VEGETATIVE SEED MIXES ARE SPECIFIED, SEEDING MUST TAKE PLACE NO LATER THAN SEPTEMBER 1ST, THE TYPE AND PERCENTAGES OF SEED IN THE MIX ARE AS IDENTIFIED ON THE PLANS OR AS SPECIFIED BY THE DESIGN ENGINEER.
 - WATER-TIGHT TRUCKS MUST BE USED TO TRANSPORT SATURATED SOILS FROM THE CONSTRUCTION SITE. AN APPROVED EQUIVALENT IS TO DRAIN THE SOIL ON SITE AT A DESIGNATED LOCATION USING APPROPRIATE BMPs. SOIL MUST BE DRAINED SUFFICIENTLY FOR MINIMAL SPILLAGE.
 - ALL PUMPING OF SEDIMENT LADEN WATER MUST BE DISCHARGED OVER AN UNDISTURBED, PREFERABLY VEGETATED AREA, AND THROUGH A SEDIMENT CONTROL BMP (I.E. FILTER BAG).
 - THE ESC PLAN MUST BE KEPT ONSITE. ALL MEASURES SHOWN ON THE PLAN MUST BE INSTALLED PROPERLY TO ENSURE THAT SEDIMENT LADEN WATER DOES NOT ENTER A SURFACE WATER SYSTEM, ROADWAY, OR OTHER PROPERTIES.
 - THE ESC MEASURES SHOWN ON THIS PLAN ARE THE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD, THESE MEASURES SHALL BE UPGRADED AS NEEDED TO MAINTAIN COMPLIANCE WITH ALL REGULATIONS.
 - WRITTEN ESC LOGS ARE SUGGESTED TO BE MAINTAINED ONSITE AND AVAILABLE TO DISTRICT INSPECTORS UPON REQUEST.
 - IN AREAS SUBJECT TO WIND EROSION, APPROPRIATE BMPs MUST BE USED WHICH MAY INCLUDE THE APPLICATION OF FINE WATER SPRAYING, PLASTIC SHEETING, MULCHING, OR OTHER APPROVED MEASURES.
 - ALL EXPOSED SOILS MUST BE COVERED DURING WET WEATHER PERIOD.

STANDARD EROSION CONTROL NOTES FOR SITES LESS THAN 1 ACRE
DRAWING NO. 945 REVISED 12-06
CleanWater Services
Our commitment is clear.



| NO. | REVISION | BY | DATE |
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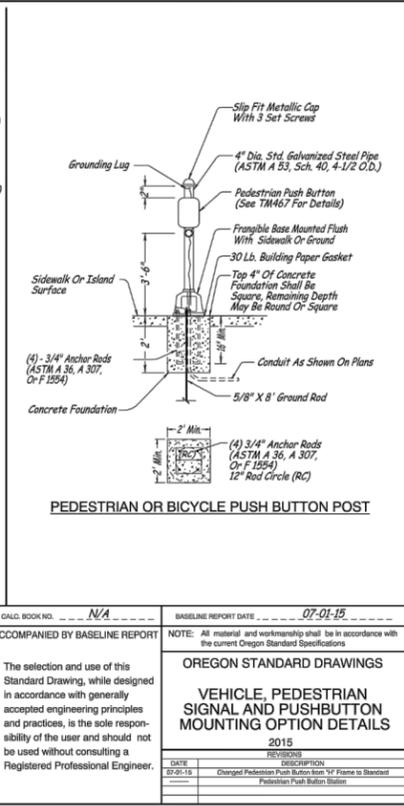
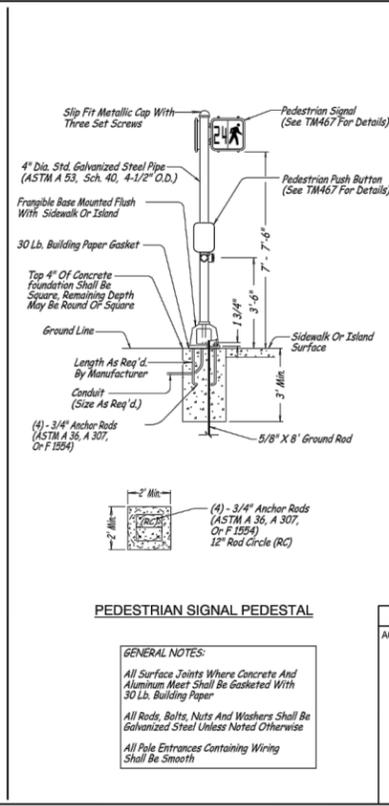
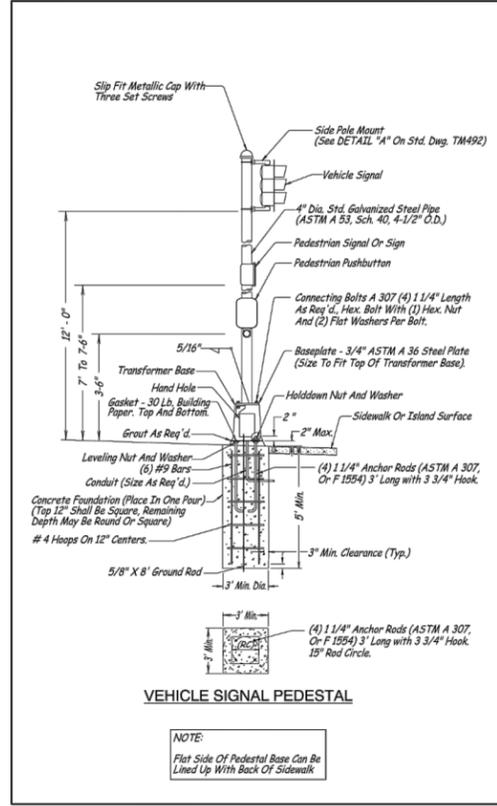
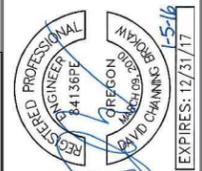
DESIGNED BY: DB
DRAWN BY: TS/CK
WS

0 1" SCALE
ONE INCH AT FULL SCALE.
IF NOT ONE INCH ADJUST SCALE ACCORDINGLY

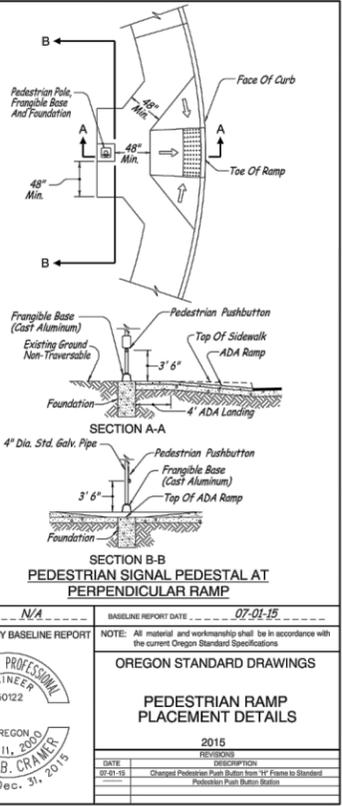
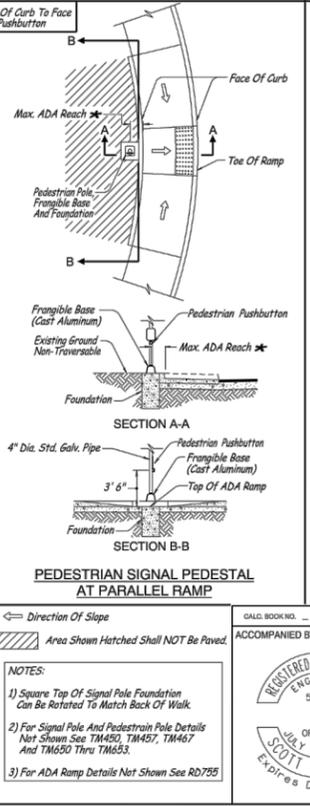
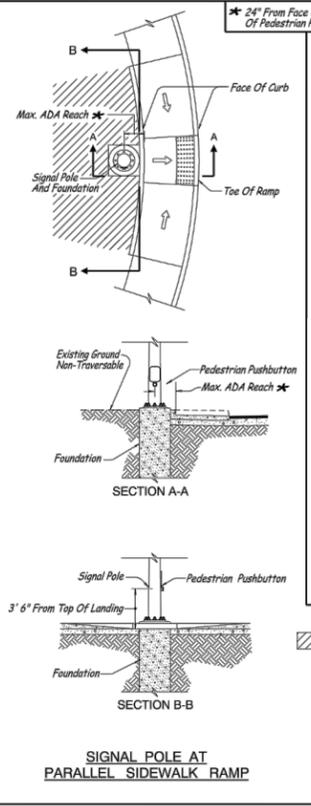
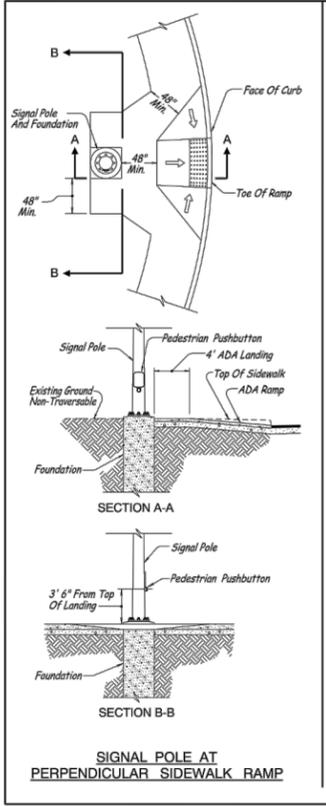
DETAILS V

wallis engineering
PROJECT NO: 1388A
DATE: 01/2016

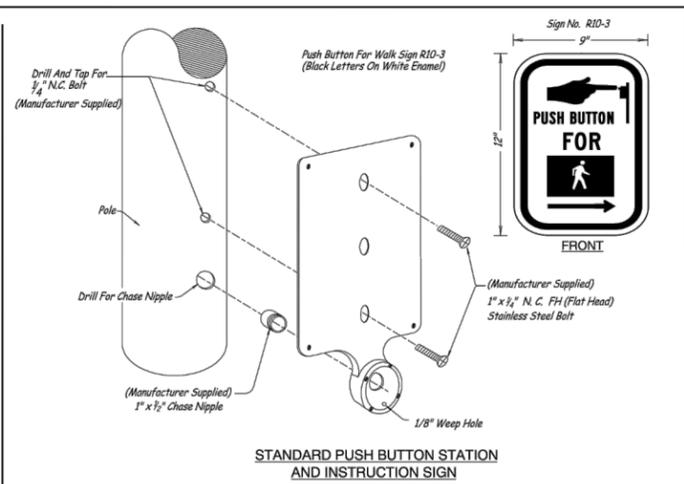
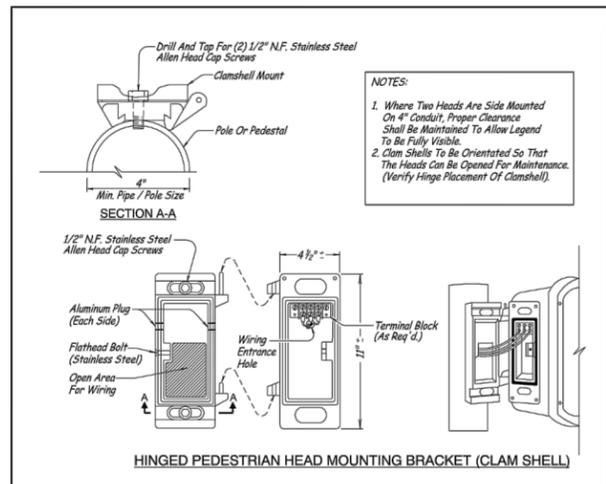
CITY OF TIGARD
SIDEWALK INFILL
SW NORTH DAKOTA STREET
& SW 95TH AVENUE
TIGARD



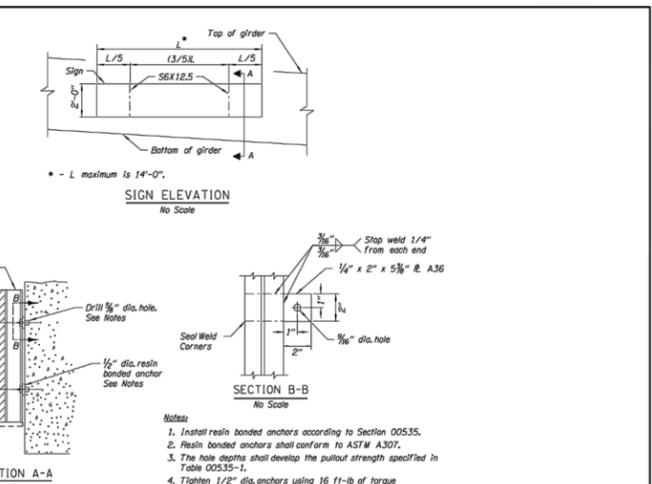
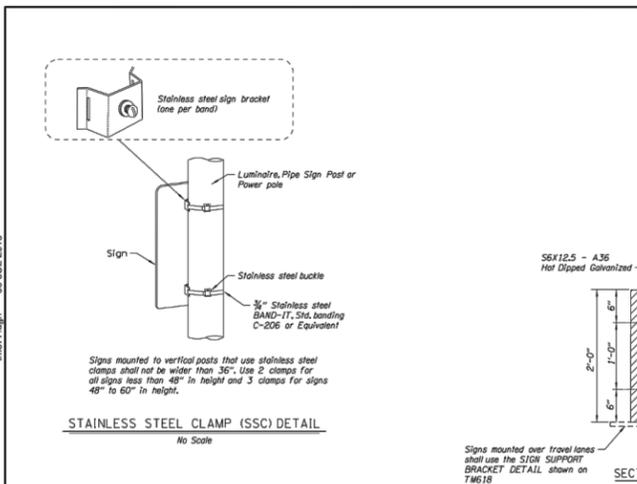
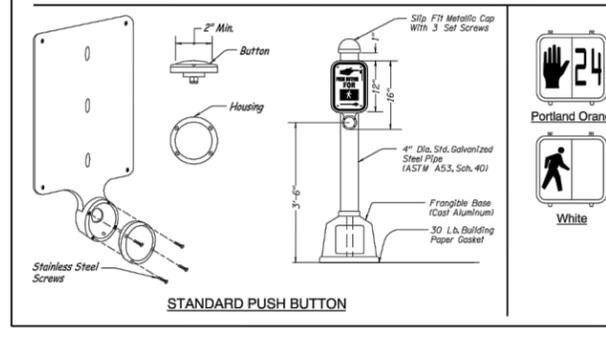
December 1, 2015 - May 31, 2016 TM457



December 1, 2015 - May 31, 2016 TM458



December 1, 2015 - May 31, 2016 TM467



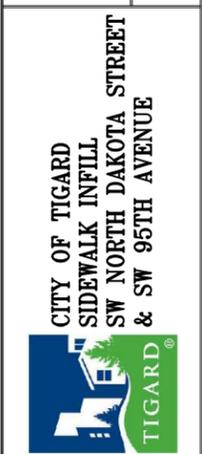
Effective Date: December 1, 2015 - May 31, 2016 TM677

December 1, 2015 - May 31, 2016 TM677

| NO. | REVISION | BY | DATE |
|-----|----------|-------|------|
| | | DB | |
| | | TS/CK | |
| | | WS | |

DESIGNED BY: DB
DRAWN BY: TS/CK
SCALE: 1" = 1'-0" (FULL SCALE)
IF NOT ONE INCH ADJUST SCALE ACCORDINGLY

PROJECT NO: 1388A
DATE: 01/2016



DRAWING NO: D6
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