CITY OF SPOKANE DEVELOPMENT SERVICE CENTER DEPARTMENT

-CONSTRUCTION PLANS-

DATE PLANS ACCEPTED: April 1, 2021

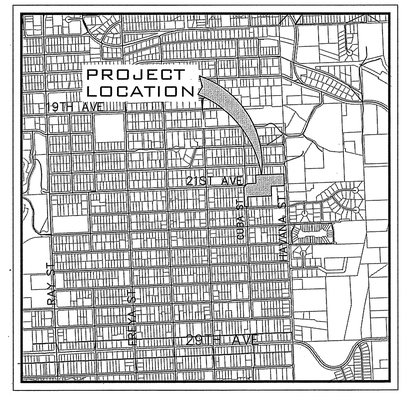
AS-BUILD OF THIS PLAN AND CONSTRUCTION INFORMATION ARE REQUIRED PRIOR TO CITY ACCEPTANCE OF IMPROVEMENTS OR PROJECT COMPLETION.

*NOTE: PLAN ACCEPTANCE ONLY FOR COMFORMANCE WITH CITY STANDARDS. PLAN DESIGN AND ACCURACY IS THE RESPONSIBILITY OF THE STAMPING ENGINEER.

REGION NO.	STATE	FEDERAL AID PROJECT NO.	SHEET NO.
EASTERN	WASH.		

UNDERGROUND SERVICE ALERT
ONE-CALL NUMBER
811
CALL TWO BUSINESS DAYS BEFORE YOU DIG

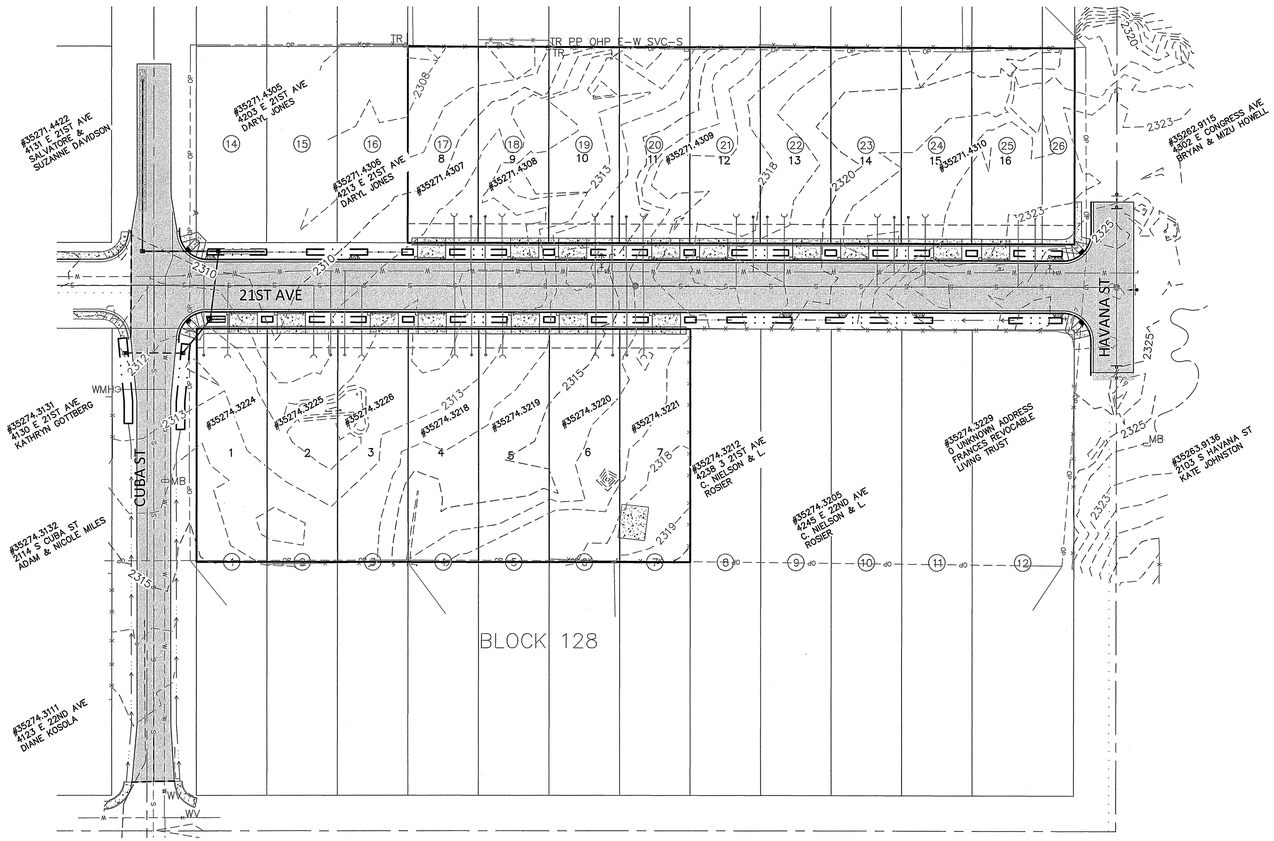
STREET & DRAINAGE PLANS
21ST & CUBA DEVELOPMENT
LOCATED IN A PORTION OF
NE 1/4 & SE 1/4, OF SEC. 27, T. 25N., R.43 E., W.M.
CITY OF SPOKANE, WA



VICINITY MAP

LEGEND

EXISTING	DESCRIPTION	PROPOSED
	ROADWAY CENTER LINE	
	RIGHT OF WAY LINE	
	PROPERTY LINE	
	EASEMENT LINE	
	FENCE	
	CURB	
	PAVEMENT	
	GRAVEL	
	CONCRETE	
	BUILDINGS & STRUCTURES	
	MONUMENT	
	SEWER	
	SANITARY SEWER	
	MANHOLE	
	CLEANOUT	
	SEWER SERVICE	
	WATER	
	WATER LINE	
	VALVE	
	FIRE HYDRANT	
	SERVICE	
	WATER METER	
	BLOWOFF	
	AIR VACUUM RELIEF STATION	
	DRAINAGE	
	DRAINAGE LINE	
	MANHOLE	
	DRYWELL	
	CATCH BASIN	
	DITCH	
	GAS	
	GAS LINE	
	VALVE	
	METER	
	TELE-POWER	
	BURIED TELEPHONE	
	POWER OR TELEPHONE POLE	
	BURIED POWER	
	TRANSFORMER PAD	
	TELEPHONE RISER	
	TELEPHONE VAULT	
	OVERHEAD POWER	
	GUY ANCHOR	
	POWER VAULT	
	LIGHT POLE	



SITE PLAN

SCALE: 1"=50'

SHEET INDEX

ABBREVIATIONS

ACT. LEN.	ACTUAL LENGTH
BCR	BEGINNING OF CURVE RADIUS
BDRY.	BOUNDARY
CO.	SEWER CLEANOUT
CSTC	CRUSHED SURFACE TOP COURSE
CT.	COURT
DIA.	DIAMETER
ECR	END OF CURVE RADIUS
EXIST.	EXISTING
G	GRADE
GB	GRADE BREAK
FT./FT.	FEET PER FOOT
HYD.	HYDRANT
I.E.	INVERT ELEVATION
LN.	LANE
LT.	LEFT
MH	MANHOLE
MCR	MIDDLE OF CURVE RADIUS
PC	POINT OF CURVATURE
PET.	PETROLEUM
PI	POINT OF INTERSECTION
PRC	POINT OF REVERSE CURVE
PT	POINT OF TANGENCY
RIM EL.	RIM ELEVATION
RD	ROAD
RT.	RIGHT
SI	STREET INTERSECTION
SS	SANITARY SEWER
STA.	STATION
STA. LEN.	STATION LENGTH
TG	TOP OF GRATE
TC	TOP OF CURB

GEOTECH REPORT
AVAILABILITY
☐ NO, OWNER DEFERRED
☒ YES, PROVIDED BY BUDINGER & ASSOCIATES, INC.
DATED 01/18/21

SITE CONTRACTOR SHALL HAVE COPY OF GOVERNING JURISDICTIONS STANDARD PLANS, AND DETAILS ON ONSITE.

STREETS
CITY OF SPOKANE
901 NORTH NELSON
SPOKANE, WASHINGTON 99201
PHONE: 232-8800
CONTACT: CLINT HARRIS

POWER / GAS
AVISTA UTILITIES
1411 EAST MISSION AVENUE
SPOKANE, WASHINGTON 99220
PHONE: 495-2967
CONTACT: JOHN LUSE

CABLE
COMCAST BROADBAND
1717 EAST BUCKEYE
SPOKANE, WASHINGTON, 99207
PHONE: 755-4800
CONTACT: BRENT FISHER

SEWER MAINTENANCE
CITY OF SPOKANE
909 EAST SPRAGUE AVENUE
SPOKANE, WASHINGTON 99202
PHONE: 625-7900
CONTACT: RAYLENE GENNETT

HEALTH
SPOKANE REGIONAL HEALTH
1101 WEST COLLEGE AVE. #402
SPOKANE, WASHINGTON 99260
PHONE: 324-1578
CONTACT: PAUL SAVAGE

INSPECTION
CITY OF SPOKANE
1423 NORTH NORMANDIE
SPOKANE, WASHINGTON 99201
PHONE: 625-7722
CONTACT: KELLY HEITSTUMAN

WATER
CITY OF SPOKANE
914 E NORTH FOOTHILLS DR
SPOKANE, WASHINGTON 99207
PHONE: 625-7800
CONTACT: SETH MCINTOSH

SOLID WASTE
CITY OF SPOKANE
1225 E MARIETTA AVENUE
SPOKANE, WASHINGTON 99207
PHONE: 625-7881
CONTACT: RICK HUGHES

GEO. TECH.
TBD

FIRE
SPOKANE FIRE DEPT.
44 WEST RIVERSIDE
SPOKANE, WASHINGTON 99201
PHONE: 625-7000
CONTACT: BRIAN SCHAEFFER, CH.

TELEPHONE
CENTURY LINK
904 NORTH COLUMBUS
SPOKANE, WASHINGTON, 99202
PHONE: 623-0319
CONTACT: ROB GEODE

ENGINEER
WHIPPLE CONSULTING ENGINEERS
21 S. PINES ROAD
SPOKANE VALLEY, WA 99206
PHONE: 893-2617
CONTACT: TODD WHIPPLE, P.E.

OWNER
MSK
P. O. BOX 147
SPOKANE VALLEY, WA 99016
PHONE: 294-4375
CONTACT: MIKE KINNEY

N
W E
S

GRAPHIC SCALE
50 0 25 50 100
(IN FEET)
1 inch = 50 ft.

WCE
WHIPPLE CONSULTING ENGINEERS
21 S. PINES RD.
SPOKANE VALLEY, WA 99206
PH: 509-893-2617 FAX: 509-926-0227

TODD R. WHIPPLE — STATE OF WASHINGTON — 25462 — REGISTERED PROFESSIONAL ENGINEER

S-1
1 OF 13

DATE	BY	PROJ	DESCRIPTION
4/01/21	JMH	C	FINAL PLAN SUBMITTAL FOR APPROVAL
2/10/21	JMH	B	REVISIONS TO PLANS PER C.O.S. COMMENTS
11/10/20	JMH	A	REVISIONS TO PLANS PER C.O.S. COMMENTS
10/08/20	JMH	–	ORIGINAL SUBMITTAL

REVISIONS

DATE	BY	PROJ.	E.F.N. , U.S.N.	FROM	TO

AS BUILT

COUNCIL ACCEPT DATE	FROM	TO	ORD. NO.	DATE	FILE NO.

GRADE ORDINANCE LIST

NAVD88 = (OLD CBM ELEV.) – (13.13) | AS OF JANUARY, 2000 USE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)

BENCH MARK LOCATION
INTERSECTION OF 29TH AVE & HAVANA ST

NAVD88 ELEV. 2297.37
CBM NO. 29S-42E

NAVD88 DATUM

BAR IS ONE INCH ON ORIGINAL DRAWING.
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

HORIZONTAL PLAN&PROFILE 1"=50'
VERTICAL PROFILE ONLY N/A

SCALE

CURRENT CITY/COUNTY DESIGN STANDARDS ADOPTED FEB,2007

	BY	DATES
DRAWN:	JMH	09/28/20
REVISED:	JMH	2/08/21
CHECKED:	TRW	2/10/21
APPROVED:	TRW	4/01/21

CITY OF SPOKANE, WASHINGTON
DEPARTMENT OF ENGINEERING SERVICES
808 WEST SPOKANE FALLS BLVD.
SPOKANE, WASHINGTON 99201-3343
(509) 625-6300

PROJECT NAME: 21ST & CUBA DEVELPOMENT
SEGMENT LIMITS: COVER SHEET
PROJECT LIMITS: CUBA ST TO HAVANA ST

TYPE OF IMPROVEMENT:	PUBLIC STREET
CITY PROJECT NUMBER	CITY PLAN NUMBER
2020612	COVER 27-25-43
EFN: WCE 20-2725	

REGION NO.	STATE	FEDERAL AID PROJECT NO.	SHEET NO.
EASTERN	WASH.		

UNDERGROUND SERVICE ALERT
ONE-CALL NUMBER
811
CALL TWO BUSINESS DAYS BEFORE YOU DIG

WCE GENERAL NOTES

1. ALL MATERIALS, WORKMANSHIP, AND CONSTRUCTION OF SITE IMPROVEMENTS SHALL MEET OR EXCEED THE WSDOT /APWA STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION CURRENT EDITION AS MODIFIED BY THE STANDARDS AND SPECIFICATIONS SET FORTH IN THE CITY OF SPOKANE REGULATIONS AND OTHER APPLICABLE STATE AND FEDERAL REGULATIONS. WHERE THERE IS CONFLICT BETWEEN THESE PLANS AND THE SPECIFICATIONS, OR ANY APPLICABLE STANDARDS, THE HIGHER QUALITY STANDARD SHALL APPLY. ALL WORK WITHIN PUBLIC R.O.W. OR EASEMENTS SHALL BE INSPECTED AND APPROVED BY THE CITY OF SPOKANE INSPECTOR. INSPECTION SERVICES AND CONSTRUCTION CERTIFICATION TO BE PROVIDED BY DESIGNEE OF PROJECT SPONSOR/OWNER.

2. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES, AS SHOWN ON THESE PLANS, IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED UPON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE LOCAL UTILITY LOCATION CENTER AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATIONS OF EXISTING UTILITIES. THE CONTRACTOR SHALL VERIFY PERTINENT LOCATIONS AND ELEVATIONS, ESPECIALLY AT THE CONNECTION POINTS AND AT POTENTIAL UTILITY CONFLICTS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES THAT CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THESE PLANS.

3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FROM ALL APPLICABLE AGENCIES. THE CONTRACTOR SHALL NOTIFY THE CITY OF SPOKANE INSPECTOR AT LEAST 48 HOURS PRIOR TO THE START OF ANY EARTH DISTURBING ACTIVITY OR CONSTRUCTION ON ANY AND ALL PUBLIC IMPROVEMENTS.

4. THE CONTRACTOR SHALL COORDINATE AND COOPERATE WITH THE CITY OF SPOKANE AND ALL UTILITY COMPANIES WITH REGARD TO RELOCATIONS OR ADJUSTMENTS OF EXISTING UTILITIES DURING CONSTRUCTION, TO ASSURE THAT THE WORK IS ACCOMPLISHED IN A TIMELY FASHION, AND WITH A MINIMUM DISRUPTION OF SERVICE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING ALL PARTIES AFFECTED BY ANY DISRUPTION OF ANY UTILITY SERVICE.

5. THE CONTRACTOR SHALL HAVE ONE (1) SIGNED COPY OF THE APPROVED PLANS, ONE (1) COPY OF THE APPROPRIATE STANDARDS AND SPECIFICATIONS, AND ONE (1) COPY OF ANY PERMITS AND EXTENSION AGREEMENTS NEEDED FOR THE JOB ON-SITE AT ALL TIMES.

6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ASPECTS OF SAFETY INCLUDING, BUT NOT LIMITED TO: EXCAVATION, TRENCHING, SHORING, TRAFFIC CONTROL, AND SECURITY.

7. IF, DURING THE CONSTRUCTION PROCESS, CONDITIONS ARE ENCOUNTERED BY THE CONTRACTOR, HIS SUBCONTRACTORS, OR OTHER AFFECTED PARTIES WHICH COULD INDICATE A SITUATION THAT IS NOT IDENTIFIED IN THE PLANS OR SPECIFICATIONS, THE CONTRACTOR SHALL CONTACT THE ENGINEER IMMEDIATELY.

8. ALL REFERENCES TO ANY PUBLISHED STANDARDS SHALL REFER TO THE LATEST REVISION OF SAID STANDARD, UNLESS SPECIFICALLY STATED OTHERWISE.

9. FOR WORK AFFECTING PUBLIC ROADWAYS OR IF REQUIRED BY THE CITY OF SPOKANE, THE CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL AND PHASING PLAN IN ACCORDANCE WITH M.U.T.C.D. FOR APPROVAL. PRIOR TO ANY CONSTRUCTION ACTIVITIES WITHIN OR AFFECTING THE RIGHT-OF-WAY, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ANY AND ALL TRAFFIC CONTROL DEVICES AS MAY BE REQUIRED BY SAID PLANS. PRIOR TO INSTALLATION.
A PRECONSTRUCTION CONFERENCE SHALL BE HELD WITH THE CITY OF SPOKANE.

10. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL LABOR AND MATERIALS NECESSARY FOR THE COMPLETION OF THE INTENDED IMPROVEMENTS SHOWN ON THESE DRAWINGS OR DESIGNATED TO BE PROVIDED, INSTALLED, CONSTRUCTED, REMOVED OR RELOCATED UNLESS SPECIFICALLY NOTED OTHERWISE.

11. PER AGENCY STANDARDS THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING ROADWAYS FREE AND CLEAR OF ALL CONSTRUCTION DEBRIS AND DIRT TRACKED FROM THE SITE.

12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RECORDING RECORD INFORMATION ON A SET OF RECORD DRAWINGS KEPT AT THE CONSTRUCTION SITE AND AVAILABLE TO THE CITY OF SPOKANE INSPECTOR AT ALL TIMES.

13. DIMENSIONS FOR LAYOUT AND CONSTRUCTION ARE NOT TO BE SCALED FROM ANY DRAWING. FOR ADDITIONAL INFORMATION CONTACT THE ENGINEER FOR CLARIFICATION AND NOTE ON THE RECORD DRAWINGS.

14. ALL EROSION AND SEDIMENT CONTROL (E.S.C.) MEASURES SHALL BE INSTALLED AT THE LIMITS OF CONSTRUCTION PRIOR TO GROUND DISTURBING ACTIVITY. ALL E.S.C. MEASURES SHALL BE MAINTAINED IN GOOD REPAIR BY THE CONTRACTOR UNTIL SUCH TIME AS THE ENTIRE DISTURBED AREAS ARE STABILIZED WITH HARD SURFACE OR LANDSCAPING.

15. THE CONTRACTOR SHALL SEQUENCE INSTALLATION OF UTILITIES IN SUCH A MANNER AS TO MINIMIZE POTENTIAL UTILITY CONFLICTS. IN GENERAL, STORM SEWER AND SANITARY SEWER SHOULD BE CONSTRUCTED PRIOR TO INSTALLATION OF WATER LINES AND DRY UTILITIES. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE ALL UTILITY RELOCATIONS CONSISTENT WITH THE CONTRACTORS SCHEDULE FOR THIS PROJECT, WHETHER SHOWN OR NOT SHOWN, AS IT RELATES TO THE CONSTRUCTION ACTIVITIES CONTEMPLATED IN THESE PLANS.

16. ALL WORK WITHIN THE PUBLIC RIGHT-OF-WAY IS SUBJECT TO THE JURISDICTION OF THE CITY OF SPOKANE ENGINEERING DEPARTMENT STANDARD DETAILS AND SPECIFICATIONS.

17. ALL CONSTRUCTION OPERATIONS, INCLUDING THE WARMING UP, REPAIR, ARRIVAL, DEPARTURE OR RUNNING OF TRUCKS, EARTH MOVING EQUIPMENT, CONSTRUCTION EQUIPMENT AND ANY OTHER ASSOCIATED EQUIPMENT SHALL GENERALLY BE LIMITED TO THE TIME PERIOD APPROVED BY THE CITY OF SPOKANE.

18. BASED ON REQUIREMENTS FROM CITY OF SPOKANE, THE ENGINEER OR HIS DESIGNEE SHALL PERFORM MATERIALS TESTING AND QUALITY CONTROL ON THE PROJECT AND SHALL SUBMIT COPIES OF DAILY REPORTS, TEST REPORTS, PROJECT CERTIFICATION AND RECORD DRAWINGS TO CITY OF SPOKANE ENGINEER.

19. NO REVISIONS SHALL BE MADE TO THESE PLANS WITHOUT APPROVAL OF THE CITY OF SPOKANE ENGINEERS AND NOTIFICATION OF THE ENGINEER OF RECORD.

20. ON-SITE GRADING SHALL BE IN ACCORDANCE WITH THE APPROVED GRADING PLAN AND E.S.C. PLAN. ANY IMPORT OR EXPORT OF MATERIAL SHALL BE FROM A PREAPPROVED SOURCE/DESTINATION AND COORDINATED WITH THE CITY OF SPOKANE DEPARTMENT OF BUILDING AND PLANNING AT 509-625-6300. GRADING ON THIS SITE OR ANY OTHER SITE MUST COMPLY WITH ALL DEVELOPMENT REGULATIONS INCLUDING, BUT NOT LIMITED TO , GRADING PERMITS, S.E.P.A. REVIEW, TIMBER HARVEST PERMITS, CRITICAL AREAS, FLOOD PLAINS, DESIGNATED DRAINAGE WAYS, ETC.

21. THE CONTRACTOR IS CAUTIONED THAT IT IS THE UNDERSTANDING OF THE OWNER AND THE ENGINEER THAT SHOULD A CONFLICT OR DISCREPANCY IN THESE PLANS, SPECIFICATIONS, GENERAL NOTES OR PLANS ET.AL. DETERMINED TO BE PART OF THE OVERALL PROJECT, INCLUDING BUT NOT LIMITED TO THE ARCHITECTURAL PLANS, MECHANICAL PLANS, ELECTRICAL PLANS, LANDSCAPE PLANS, GENERAL SPECIAL PROVISIONS, ETC., THAT WITHOUT WRITTEN CLARIFICATION FROM THE ENGINEER, OWNER OR OTHER PROFESSIONAL, DURING THE BIDDING PROCESS, THAT IN ALL INSTANCES THE CONTRACTOR WILL BE REQUIRED TO BID THE HIGHER STANDARD. FAILURE TO DO SO MAY RESULT IN THE HIGHER STANDARD BEING REQUIRED BY THE OWNER, ENGINEER OR OTHER PROFESSIONAL WITH NO CHANGE IN VALUE TO THE CONTRACT VIA CHANGE ORDER OR OTHER MECHANISM.

22. CONSTRUCTION OF EVERY DRYWELL, INCLUDING FABRIC AND DRAINROCK, SHALL BE OBSERVED BY THE ON-SITE INSPECTOR TO CONFIRM THAT IT MEETS THE DESIGN DETAILS AND SPECIFICATIONS. DRYWELLS NOT OBSERVED SHALL HAVE THEIR PERFORMANCE VERIFIED BY A FULL-SCALE DRYWELL TEST.

23. DURING CONSTRUCTION THE CONTRACTOR IS RESPONSIBLE TO COORDINATE ANY AND ALL INCONSISTENCIES BETWEEN THESE PLANS AND CONSTRUCTION STAKING. CONTRACTOR ASSUMES RESPONSIBILITY TO CONSTRUCT TO THESE PLANS IN LIEU OF FIELD STAKING. SHOULD INCONSISTENCIES BE APPARENT THE CONTRACTOR SHALL CONTACT THE ENGINEER, OWNER, AND SURVEYOR TO RECTIFY THE DISCREPANCY PRIOR TO CONSTRUCTION EFFORT BEING APPLIED.

24. FAIR HOUSING ACT – SAFE HARBORS FOR COMPLIANCE

WHIPPLE CONSULTING ENGINEERS, INC. FOR THE PROJECT CONTAINED WITHIN THESE PLANS HAS USED THE FOLLOWING SAFE HARBOR FOR ADA ACCESSIBILITY FOR THOSE ISSUES CONSIDERED SITE DEVELOPMENT ISSUES.

ICC/ANSI A117.1 (2003), ALONG WITH THE FAIR HOUSING ACT, HUD'S FAIR HOUSING ACT REGULATIONS, AND GUIDELINES.

25. ALL FIRE LINES MUST BE INSTALLED BY AN APPROVED LEVEL 'U' CONTRACTOR OR A LEVEL 3 FIRE PROTECTION CONTRACTOR.

26. CONTRACTOR IS NOTIFIED THAT SOME OR ALL OF THE PAVEMENT CUTS TO INSTALL DRY UTILITIES, SEWER, WATER, STORM OR OTHER TIE-INS SHALL BE COORDINATED WITH THE CITY OF SPOKANE AS SPECIFIC PAVEMENT CUT POLICIES MAY BE IN EFFECT THAT ARE NOT NOTED ON THE PLANS.

27. THE CONTRACTOR IS NOTED THAT IT IS NOT THE OWNERS, ENGINEERS, CITY'S NOR THE INSPECTION AND TESTING COMPANY'S (THE PARTIES) RESPONSIBILITY TO ANTICIPATE WHEN CONSTRUCTED ELEMENTS WILL BE READY FOR INSPECTION AND TESTING. THE CONTRACTOR IS RESPONSIBLE TO NOTIFY ALL PARTIES THAT CERTAIN CONSTRUCTED ELEMENTS ARE BEING INSTALLED AND ON WHAT DATE THEY WILL BE INSTALLED. IF SUCH FAILURE TO NOTIFY THEN RESULTS IN LACK OF INSPECTIONS AND TESTING SERVICES FOR CERTAIN ELEMENTS, THE CONTRACTOR SHOULD NOT EXPECT THAT THIS LACK OF INSPECTION AND TESTING WILL RESULT IN THE BLANKET APPROVAL OF SUCH ITEM. THE CONTRACTOR IS NOTIFIED THAT SUBSEQUENT REMOVAL AND RECONSTRUCTION OF SUCH ELEMENTS IS TO BE BORNE BY THE CONTRACTOR AND OR THEIR SUB-CONTRACTOR PROVIDING THE SERVICE AND THE INSTALLATION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAKE SURE THAT ALL PARTIES ARE ADEQUATELY NOTIFIED, NOTIFICATION WILL BE BY TWO MEANS FOR EACH REQUEST/OCCURRENCE THE ACCEPTABLE MEANS ARE AS FOLLOWS, EMAIL, TEXT, FAX OR PHONE, NOTIFICATION SHALL INCLUDE ELEMENT, DATE AND CONSTRUCTION START TIME. EXCESSIVE STANDBY TIME ON THE PART OF THE PARTIES MAY RESULT IN A BACK CHARGE TO THE CONTRACTOR.

WCE GRADING NOTES

1. CONTOURS AND / OR ELEVATIONS SHOWN ARE FOR FINISHED PAVING, SIDEWALK, SLAB, OR GROUND. ADJUSTMENT TO SUBGRADE IS THE CONTRACTOR'S RESPONSIBILITY.

2. ALL DISTURBED AREAS THAT ARE SUBSURFACE OR ARE NOT DESIGNATED AS LANDSCAPE AREAS ARE TO BE SEEDED, FERTILIZED, AND WATERED UNTIL A HEALTHY STAND OF GRASS IS OBTAINED.

3. IF DURING THE OVERLOT GRADING PROCESS, CONDITIONS ARE ENCOUNTERED WHICH COULD INDICATE AN UNIDENTIFIED SITUATION IS PRESENT, THE SOILS ENGINEER SHALL BE CONTACTED FOR RECOMMENDATIONS.

4. UNLESS OTHERWISE SHOWN, NO PROPOSED SLOPE SHALL EXCEED THREE (3) HORIZONTAL TO ONE (1) VERTICAL. ALL SLOPED AREAS MUST BE PROTECTED FROM EROSION.

5. IF STRIPPED MATERIALS CONSISTING OF VEGETATION AND ORGANIC MATERIALS ARE STOCKPILED ON THE SITE, TOPSOIL MAY BE PLACED TO A HEIGHT OF FIVE FEET. SILT FENCE SHALL BE PLACED AROUND THE BASE OF THE STOCKPILE AND THE STOCKPILE SHALL BE SEEDED WITH NATIVE SEED MIX IMMEDIATELY AFTER STRIPPING OPERATIONS ARE COMPLETE.

6. SPOT ELEVATIONS SHALL TAKE PRECEDENCE OVER CONTOURS AND SLOPES SHOWN. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF SPOT ELEVATIONS THAT DO NOT APPEAR TO BE CONSISTENT WITH THE CONTOURS AND SLOPES. SPOT ELEVATIONS AND SPECIFIC PROFILE DESIGN SHALL BE USED FOR SETTING ELEVATIONS OF CURB, GUTTER, AND UTILITIES.

7. BENCHMARK VERIFICATION: CONTRACTOR SHALL USE BENCHMARKS AND DATUMS SHOWN HEREON TO SET PROJECT BENCH MARK'S, BY RUNNING A LEVEL LOOP BETWEEN AT LEAST TWO BENCHMARKS, AND SHALL PROVIDE SURVEY NOTES OF SUCH TO PROJECT ENGINEER PRIOR TO COMMENCING CONSTRUCTION.

8. ALL UTILITIES (MANHOLES, VALVE COVERS, CLEANOUTS, VAULTS, BOXES, ETC.) SHALL BE ADJUSTED TO FINAL GRADE PRIOR TO THE FINAL LIFT OF ASPHALT.

9. GRADES WITHIN ASPHALT PARKING AREAS SHALL BE CONSTRUCTED TO WITHIN 0.10 FEET OF THE DESIGN GRADE. HOWEVER, THE CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE IN ALL PAVEMENT AREAS AND ALONG ALL CURBS. ALL CURBS SHALL BE BUILT IN ACCORDANCE TO THE PLAN. CURBS OR PAVEMENT AREAS WHICH DO NOT PROVIDE PROPER DRAINAGE MUST BE REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE.

10. SPOT ELEVATIONS REPRESENT FLOW LINE OR TOP OF ASPHALT UNLESS OTHERWISE NOTED.

11. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING HIS OWN ESTIMATE OF EARTHWORK QUANTITIES.

12. WHERE NEW CURB AND GUTTER IS BEING CONSTRUCTED ADJACENT TO EXISTING ASPHALT OR CONCRETE PAVEMENT, THE FOLLOWING SHALL APPLY: PRIOR TO PLACEMENT OF ANY CONCRETE THE CONTRACTOR SHALL HAVE A LICENSED SURVEYOR VERIFY THE GRADE AND CROSS SLOPE OF THE CURB AND GUTTER FORMS. THE CONTRACTOR SHALL SUBMIT THE SLOPES AND GRADES TO THE ENGINEER FOR APPROVAL PRIOR TO PLACEMENT OF CONCRETE. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY OF ANY SECTION WHICH DOES NOT CONFORM TO THE DESIGN OR TYPICAL CROSS SECTION. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR CURB AND GUTTER POURS WITHOUT THE APPROVAL OF THE ENGINEER.

13. THE EARTHWORK FOR ALL BUILDING FOUNDATIONS AND SLABS SHALL BE IN ACCORDANCE WITH ARCHITECTURAL BUILDING PLANS AND SPECIFICATIONS.

14. PRE CAST STRUCTURES MAY BE USED AT CONTRACTORS OPTION.

15. EXISTING DRAINAGE STRUCTURES TO BE INSPECTED AND REPAIRED AS NEEDED, AND EXISTING PIPES TO BE CLEANED OUT TO REMOVE ALL SILT AND DEBRIS.

16. EXISTING GRADE CONTOUR INTERVALS SHOWN AT 1 FOOT INTERVALS.

17. IF ANY EXISTING STRUCTURES TO REMAIN ARE DAMAGED DURING CONSTRUCTION IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO REPAIR AND/OR REPLACE THE EXISTING STRUCTURE AS NECESSARY TO RETURN IT TO EXISTING CONDITIONS OR BETTER.

18. CONTRACTOR SHALL ADJUST AND/OR CUT EXISTING PAVEMENT AS NECESSARY TO ASSURE A SMOOTH FIT AND CONTINUOUS GRADE.

19. CONTRACTOR SHALL ASSURE POSITIVE DRAINAGE AWAY FROM BUILDINGS FOR ALL NATURAL AND PAVED AREAS.

20. TOPOGRAPHIC INFORMATION TAKEN FROM A TOPOGRAPHIC SURVEY PROVIDED BY THE OWNER . IF CONTRACTOR DOES NOT ACCEPT EXISTING TOPOGRAPHY AS SHOWN ON THE PLANS. WITHOUT EXCEPTION, HE SHALL HAVE MADE, AT HIS EXPENSE, A TOPOGRAPHIC SURVEY BY A REGISTERED LAND SURVEYOR AND SUBMIT IT TO THE OWNER FOR REVIEW.

21. ALL SUBSURFACE AREA DISTURBED BY GRADING OPERATION SHALL RECEIVE 4 INCHES OF TOPSOIL. CONTRACTOR SHALL APPLY STABILIZATION FABRIC TO ALL SLOPES 3H:1V OR STEEPER. (CONTRACTOR SHALL PLACE SOD OR HYDROSEED DISTURBED AREAS IN ACCORDANCE WITH CITY/COUNTY SPECIFICATIONS AND MAINTAINED UNTIL A HEALTHY STAND OF GRASS IS OBTAINED.) HYDROSEED WITH TACKIFIER OVER A CORDUROY SLOPE MAY BE ACCEPTABLE, THE SITE GEOTECHNICAL ENGINEER MUST BE CONSULTED.

22. CONSTRUCTION SHALL COMPLY WITH ALL APPLICABLE GOVERNING CODES AND SITE SHALL BE CONSTRUCTED TO SAME.

23. CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL UTILITIES AND NOTIFYING THE APPROPRIATE UTILITY COMPANY PRIOR TO BEGINNING CONSTRUCTION.

24. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATIONS OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.

25. ENGINEER SHALL BE NOTIFIED WHEN 'CURBING STRING LINE' HAS BEEN SET, PRIOR TO CURBING BEING INSTALLED.

26. ALL DRYWELLS TO BE INSTALLED TO HAVE (1') ONE FOOT OF VERTICAL ADJUSTMENT.

27. ENGINEERING OR THE OWNER'S INSPECTION REPRESENTATIVE SHALL BE ON SITE, AND SHALL COLLECT TRUCK TICKETS FOR DRYWELL ROCK, AND SOIL.

28. ALL PIPE SHALL BE INSTALLED WITH EITHER A SAND COLLAR, KOR-N-SEAL OR APPROVED EQUIVALENT.

WCE STORM DRAINAGE NOTES

1. SEE STREET PLAN AND PROFILE SHEETS FOR DRYWELL AND CATCH BASIN TYPES AND LOCATIONS.

2. SWALE/PONDS SHALL BE CONSTRUCTED PER THE REQUIREMENTS OF THESE DRAWINGS INCLUDING GRADING, SOD, AND DRYWELL INSTALLATION. ALL SWALES/PONDS WITH IN TRACTS SHALL INCLUDE AN IRRIGATION SYSTEM, ALL IRRIGATION SHALL CONFORM TO CITY OF SPOKANE SWALE/POND IRRIGATION SYSTEM GUIDELINES.

3. ALL SWALES/PONDS SHOWN SHALL BE ROUGH GRADED PRIOR TO PAVING OF ADJACENT ROADWAY.

4. CONTRACTOR SHALL PROVIDE CITY OF SPOKANE WITH AS-BUILT IRRIGATION PLANS UPON COMPLETION OF ALL SWALE/POND CONSTRUCTION.

5. INSTALL "AMOCO" #4545 FILTER FABRIC (OR APPROVED EQUAL) BETWEEN THE NATIVE SOIL AND WASHED DRAIN ROCK, FOR ALL DRYWELLS. SEE CITY OF SPOKANE STANDARD PLAN B-102C FOR INSTALLATION LOCATIONS.

6. ALL SWALES/PONDS WITHIN THE RIGHT-OF-WAY, IN THE AREA ASSOCIATED WITH THIS PROJECT, SHALL BE COMPLETED DURING THE CONSTRUCTION OF THE ROADWAY. THE CONTRACTOR SHALL PERFORM THE SWALE/POND GRADE WORK, INSTALL THE IRRIGATION SYSTEM, AND PLACE THE SOD WITHIN THE SWALES/PONDS FOLLOWING THE ROAD PAVING WORK.

7. THE CONTRACTOR SHALL MAKE AN EFFORT TO PROTECT ALL DRAINAGE STRUCTURES FROM BEING CONTAMINATED WITH SILT BY INSTALLING FILTER FABRIC UNDER THE LID FOR AT LEAST 6 WEEKS, OR UNTIL THE ESTABLISHMENT OF GRASS AND/OR OTHER SITE CONSTRUCTION WORK HAS ENDED. IN THE EVENT THAT SILT OR OTHER DELETERIOUS MATERIAL IS ALLOWED TO ENTER THE DRYWELL OR CATCH BASIN THE CONTRACTOR WILL BE REQUIRED TO CLEAN THE DRYWELL OR CATCH BASIN OUT TO THE SATISFACTION OF THE CERTIFYING ENGINEER,

8. ALL LANDSCAPE AREAS (INCLUDING SWALES/PONDS) ARE TO BE IRRIGATED BY AN AUTOMATIC IRRIGATION SYSTEM SHALL BE INSTALLED BY OR UNDER THE DIRECTION OF THE LANDSCAPE CONTRACTOR. THE IRRIGATION SYSTEM SHALL COMPLY WITH ALL LOCAL CODES AND ORDINANCES (90 DAY GUARANTEE). AN APPROVED BACKFLOW DEVICE SHALL BE INSTALLED TO PREVENT WATER FOR GOING BACK INTO THE WATER SUPPLY.

9. THE FLOOR OF ALL GRASSED PERCOLATION AREAS (GPA) (SWALES/PONDS) INCLUDES THE LEVEL PORTION OF THE FLOOR OF THE SWALES, AND THE SIDE SLOPES OF THE SWALE UP TO THE GPA OVERFLOW ELEVATION OR TOP OF DRYWELL. THE SOIL LOCATED IN THE FLOOR OF THE THE GPA SWALE SHALL BE A MEDIUM TO WELL-DRAINING MATERIAL, WITH A MINIMUM INFILTRATION RATE OF 0.5 INCHES PER HOUR. THE GEOTECHNICAL ENGINEER SHALL PROVIDE A WRITTEN STATEMENT WHICH VERIFIES THAT ALL GPA SWALES CONFORM TO THIS REQUIREMENT. THIS WRITTEN STATEMENT SHALL BE SUBMITTED TO THE SPOKANE COUNTY ENGINEER'S OFFICE PRIOR TO INSTALLING FINISHED LANDSCAPING/SOD AND PRIOR TO FINAL ACCEPTANCE. THE SWALE FLOOR MATERIAL SHALL BE INSTALLED TO A NATIVE SOIL STRATUM WHICH ALSO MEETS OR EXCEEDS THIS MINIMUM PERCOLATION RATE OF 0.5 INCHES PER HOUR, OR AS APPROVED BY SITE GEOTECHNICAL ENGINEER.

10. WHEN TWO OR MORE CURB INLETS ARE USED, SET POND BOTTOM WITH RESPECT TO THE LOWEST CURB INLET GUTTER FLOWLINE ELEVATION.

11. THE TOP 12" OF SOIL FOR ALL SWALE/POND BOTTOMS SHALL CONSIST OF THOROUGHLY BLENDED MIX OF 50% COMPOST WITH 50% NATIVE SOILS, OR AS APPROVED BY SITE GEOTECHNICAL ENGINEER.

12. PER THE S.R.S.M. ALL SWALES/PONDS SHALL HAVE 12" OF TREATMENT SOIL WITH AN INFILTRATION RATE OF 0.5 INCHES/HOUR AND AVERAGE CATION EXCHANGE CAPACITY OF AT LEAST 15 MILLIQUIVELENTS/100 GRAMS OR AT LEAST 2% OF ORGANIC MATER BY WEIGHT. SEE TABLE 6-1, PG. 6-16 OF THE SPOKANE REGIONAL STORMWATER MANUAL, OR AS APPROVED BY SITE GEOTECHNICAL ENGINEER.

13. WARNING: THE USE OF SILTY LOAM IS PROHIBITED AS SWALE/PONDS BOTTOM MATERIAL.

14. ALL DRYWELLS TO HAVE 1' ONE VERTICAL FOOT OF ADJUSTMENT

15. THE ENGINEER SHALL BE ON SITE, AND SHALL COLLECT TRUCK TICKETS FOR THE DRYWELL ROCK AND SOIL.

SLEEVING: PROVIDE SLEEVING AS REQUIRED UNDER SIDEWALKS, PATHS, CURBING, PAVING, ETC. AS NEEDED FOR IRRIGATION ACCESS. ALL SLEEVING TO BE 4" PVC WITH AT LEAST 12" OF COVER (1) FOOT BELOW FINISH GRADE. THE OWNER/GENERAL CONTRACTOR IS RESPONSIBLE FOR INSTALLING SLEEVING BEFORE CURBING, SIDEWALKS, PAVING, ETC. IS INSTALLED. PATCH ASPHALT AS NEEDED.

LAWN AREAS: LAWN AREAS ARE TO BE IRRIGATED WITH TORO POP-UP HEADS OR EQUIVALENT. (TEST SYSTEM BEFORE BACKFILLING).

ADJUSTMENT: AFTER INSTALLATION, ADJUST VALVES, HEADS, EMITTERS, ETC. TO PROVIDE UNIFORM COVERAGE AND TO MINIMIZE OVER SPRAY ON WALLS, FENCES, WALKS, DRIVES, ETC.

WATER POWER SUPPLY: THE OWNER/GENERAL CONTRACTOR IS TO SUPPLY WATER TAPS FOR HOOK-UP AND SUPPLY POWER FOR CONTROLLER.

CITY OF SPOKANE DEVELOPMENT SERVICE CENTER DEPARTMENT

-CONSTRUCTION PLANS-
April 1, 2021

DATE PLANS ACCEPTED:_____

AS-BUILD OF THIS PLAN AND CONSTRUCTION INFORMATION ARE REQUIRED PRIOR TO CITY ACCEPTANCE OF IMPROVEMENTS OR PROJECT COMPLETION.

*NOTE: PLAN ACCEPTANCE ONLY FOR COMFORMANCE WITH CITY STANDARDS. PLAN DESIGN AND ACCURACY IS THE RESPONSIBILITY OF THE STAMPING ENGINEER.

WCE
WHIPPLE CONSULTING ENGINEERS
21 S. PINES RD,
SPOKANE VALLEY, WA. 99206
PH: 509-893-2617 FAX: 509-926-0227

TODD R. WHIPPLE — STATE OF WASHINGTON — 25462 — REGISTERED PROFESSIONAL ENGINEER — 4/1/21

S-2
2 OF 13

DATE	BY	PROJ	DESCRIPTION
4/01/21	JMH	C	FINAL PLAN SUBMITTAL FOR APPROVAL
2/10/21	JMH	B	REVISIONS TO PLANS PER C.O.S. COMMENTS
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REVISIONS

DATE	BY	PROJ.	E.F.N. , U.S.N.	FROM	TO

AS BUILT

COUNCIL ACCEPT DATE	FROM	TO	ORD. NO.	DATE	FILE NO.

GRADE ORDINANCE LIST

NAVD88 = (OLD CBM ELEV.) – (13.13) | AS OF JANUARY, 2000 USE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)

BENCH MARK LOCATION: INTERSECTION OF 29TH AVE & HAVANA ST

NAVD88 ELEV. 2297.37 | CBM NO. 29S-42E | NAVD88 DATUM

BAR IS ONE INCH ON ORIGINAL DRAWING. IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

HORIZONTAL PLAN&PROFILE N/A | VERTICAL PROFILE ONLY N/A | SCALE

CURRENT CITY/COUNTY DESIGN STANDARDS ADOPTED FEB,2007

	BY	DATES
DRAWN:	JMH	09/28/20
REVISED:	JMH	2/08/21
CHECKED:	TRW	2/10/21
APPROVED:	TRW	4/01/21

CITY OF SPOKANE, WASHINGTON
DEPARTMENT OF ENGINEERING SERVICES
808 WEST SPOKANE FALLS BLVD.
SPOKANE, WASHINGTON 99201-3343
(509) 625-6300

PROJECT NAME: 21ST & CUBA DEVELPOMENT
SEGMENT LIMITS: WCE GENERAL NOTES
PROJECT LIMITS: CUBA ST TO HAVANA ST

TYPE OF IMPROVEMENT: PUBLIC STREET
CITY PROJECT NUMBER: 2020612
CITY PLAN NUMBER: NOTES 27-25-43
EFN: WCE 20-2725

REGION NO.	STATE	FEDERAL AID PROJECT NO.	SHEET NO.
EASTERN	WASH.		

UNDERGROUND SERVICE ALERT
ONE-CALL NUMBER
811
CALL TWO BUSINESS DAYS BEFORE YOU DIG

CITY OF SPOKANE WATER NOTES

1. UNLESS SPECIFICALLY EXCEPTED IN THE PLANS OR CONTRACT DOCUMENTS, ALL CONSTRUCTION METHODS AND MATERIALS SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATIONS AND STANDARD PLANS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION PROMULGATED BY THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION, THE WASHINGTON CHAPTER OF THE AMERICAN PUBLIC WORKS ASSOCIATION (LATEST EDITION) AND THE CITY OF SPOKANE GENERAL SPECIAL PROVISIONS.

2. THESE PLANS ARE SCHEMATIC AND ARE NOT INTENDED TO DEPICT ALL DETAILS OF THE WORK REQUIRED. THE CONTRACTOR SHALL BE RESPONSIBLE TO FAMILIARIZE HIMSELF WITH ACTUAL SITE CONDITIONS, REQUIREMENTS AND FACTORS AFFECTING THE WORK. WHERE LACK OF DETAIL OR CONFLICT EXISTS BETWEEN THESE AND OTHER PLANS, THE CONTRACTOR SHALL NOTIFY THE OWNER & ENGINEER TO RESOLVE THE ISSUE PRIOR TO PROCEEDING.

3. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL LABOR, MATERIALS AND EQUIPMENT NECESSARY FOR THE COMPLETION OF THE INTENDED IMPROVEMENTS SHOWN ON THESE DRAWINGS OR DESIGNATED TO BE PROVIDED, INSTALLED OR CONSTRUCTED, UNLESS SPECIFICALLY NOTED OTHERWISE.

4. EXCAVATION AND EMBANKMENT SHALL BE IN ACCORDANCE WITH APPLICABLE REQUIREMENTS OF SECTION 2-03 OF THE STANDARD SPECIFICATIONS. ALL COMPACTION SHALL BE IN ACCORDANCE WITH SECTION 2-03.3(14)C, METHOD B, AND 2-03.3(14)A, FOR ROCK EMBANKMENT.

5. THESE PLANS MAY NOT SHOW ALL EXISTING UTILITIES. EXISTING UTILITY LOCATIONS SHOWN ARE APPROXIMATE ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE EXISTENCE AND ACTUAL LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION.

6. SHORING AND CRIBBING FOR UTILITY CONSTRUCTION SHALL BE IN ACCORDANCE WITH APPLICABLE REQUIREMENTS OF SECTION 2.09 OF THE STANDARD SPECIFICATIONS.

7. ALL PIPE BEDDING SHALL BE IN ACCORDANCE WITH THE CURRENT EDITION OF CONSTRUCTION SPECIFICATIONS FOR WATER AND SEWER LINES AS ADOPTED BY THE CITY OF SPOKANE.

8. ALL BACKFILL MATERIAL SHALL BE IN ACCORDANCE WITH THE CURRENT EDITION OF CONSTRUCTION SPECIFICATIONS FOR WATER AND SEWER LINES AS ADOPTED BY THE CITY OF SPOKANE.

9. MARKING TAPE WILL BE PLACED IN THE EXCAVATION TRENCH AT MID-DEPTH LOCATION AT ALL UNDERGROUND WATER MAIN INSTALLATIONS FOR THE PURPOSE OF ALERTING ANY FUTURE EXCAVATION IN THE SPECIFIC AREA.

10. AREAS WHICH REQUIRE THE PLACEMENT OF EMBANKMENT IN ORDER TO INSTALL WATER AND SEWER (I.E. PIPELINE INVERTS ARE ABOVE EXISTING GROUND ELEVATIONS) SHALL BE CONSTRUCTED PER THESE SPECIFICATIONS TO AN ELEVATION THREE (3) FEET ABOVE THE TOP OF PROPOSED PIPE. AT THIS POINT, TRENCHING AND BACKFILL FOR PLACEMENT OF WATER AND SEWER MAY BEGIN.

11. ALL SLEEVING OF SEWER AND WATER LINES, IF NECESSARY, SHALL BE PER THE CITY OF SPOKANE STANDARD W-111.

12. CONTRACTOR MUST NOTIFY THE GOVERNING FIRE DISTRICT WHEN FIRE HYDRANTS HAVE BEEN INSTALLED AND REQUEST TESTING OF FIRE HYDRANT FLOW REQUIREMENTS.

13. ALL HYDRANTS SHALL INCLUDE STORZ ADAPTER WHERE REQUIRED BY THE APPROVING FIRE DISTRICT. ALL CONNECTIONS TO EXISTING WATER MAINS SHALL BE MADE BY CITY FORCES.

14. CONTRACTOR TO CONSTRUCT CUT-OFF WALLS WHERE DETERMINED BY THE CITY FIELD ENGINEER PER PLAN NO. B-19.

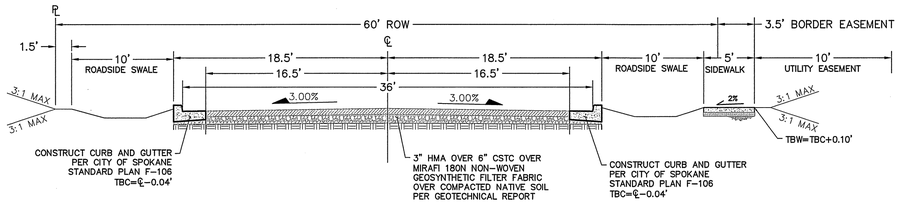
15. TAPS AND METERS CAN BE PURCHASED FROM THE DEVELOPMENT SERVICES CENTER, LOCATED ON THE 3RD FLOOR OF SPOKANE CITY HALL. SIZE OF THE SERVICE(S) SHALL COMPLY WITH THE INTERNATIONAL PLUMBING CODE. TAPPING OF THE MAIN AND INSTALLATION OF NEW METERS SHALL BE DONE BY CITY FORCES. ALL EXCAVATION AND RESTORATION IS THE OWNER'S RESPONSIBILITY. ALL TRENCHES OF EXCAVATION MUST COMPLY WITH CURRENT W.A.C. #296-155 PART N. NO CITY OF SPOKANE EMPLOYEE WILL BE PERMITTED INTO ANY TRENCH OR EXCAVATION WITHOUT PROPER SHORING OF SLOPING. NO EXCEPTIONS WILL BE MADE. PLEASE SEE THE WATER DEPARTMENT RULES AND REGULATIONS FOR INFORMATION ABOUT TAP AND METER SIZES AND SEWER/WATER SEPARATION REQUIREMENTS.

16. THE CONTRACTOR SHALL PROVIDE THE DESIGN ENGINEER WITH RECORD DRAWINGS PRIOR TO FINAL APPROVAL. ALL DEVIATION FROM THE ORIGINAL PLANS MADE DURING THE COURSE OF CONSTRUCTION, INCLUDING LOCATION, INVERTS, AND DEPTHS OF UTILITIES SHALL BE CLEARLY MARKED ON THE RECORD DRAWINGS.

17. ALL ABANDONED SIDE SEWER SHALL BE CAPPED AND INSPECTED BY WASTEWATER MANAGEMENT DIVISION.

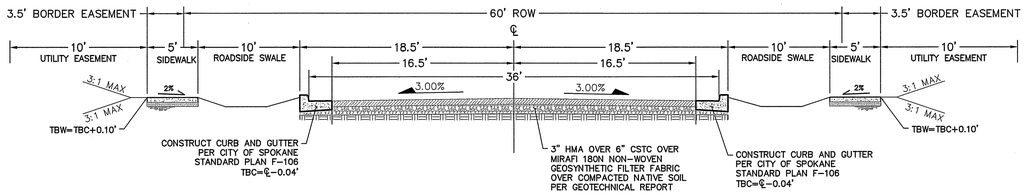
GOVERNING JURISDICTIONAL STANDARDS

NOTE: SITE CONTRACTOR SHALL HAVE COPY OF GOVERNING JURISDICTIONS STANDARD PLANS, AND DETAILS ON ONSITE.



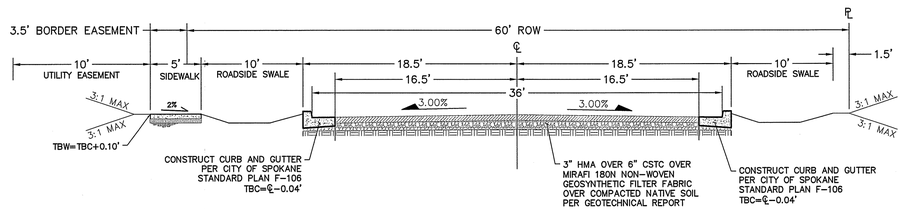
21ST AVE TYPICAL CROSS SECTION - RT SIDEWALK ONLY

STA. 45+97.00 TO STA. 47+80.50
NOT TO SCALE



21ST AVE TYPICAL CROSS SECTION - SIDEWALK BOTH SIDES

STA. 47+80.50 TO STA. 49+75.00
NOT TO SCALE



21ST AVE TYPICAL CROSS SECTION - LT SIDEWALK ONLY

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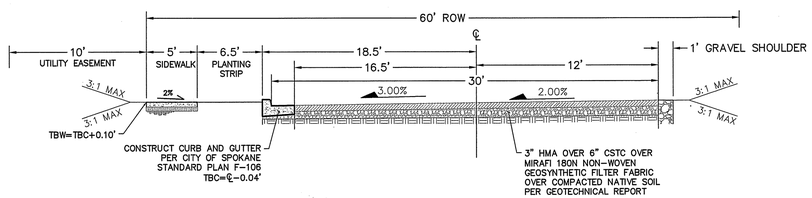
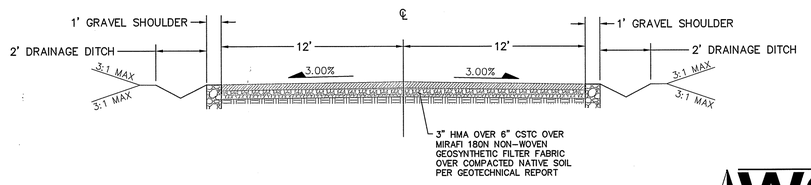
NOT TO SCALE



HAVANA ST TYPICAL CROSS SECTION

STA. 0+00.00 TO STA. 21+65.50
NOT TO SCALE



CUBA ST TYPICAL CROSS SECTION

NOT TO SCALE

CITY OF SPOKANE DEVELOPMENT SERVICE CENTER DEPARTMENT

-CONSTRUCTION PLANS-
April 1, 2021

DATE PLANS ACCEPTED:_____

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WCE
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PH: 509-893-2617 FAX: 509-926-0227

TODD R. WHIPPLE — STATE OF WASHINGTON — 15462 — REGISTERED PROFESSIONAL ENGINEER — 7-1-21

S-3
3 OF 13

DATE	BY	PROJ	DESCRIPTION
4/01/21	JMH	C	FINAL PLAN SUBMITTAL FOR APPROVAL
3/10/21	JMH	B	REVISIONS TO PLANS PER C.O.S. COMMENTS
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REVISIONS

DATE	BY	PROJ.	E.F.N. , U.S.N.	FROM	TO

AS BUILT

COUNCIL ACCEPT DATE

FROM	TO	ORD. NO.	DATE	FILE NO.

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BENCH MARK LOCATION
INTERSECTION OF 29TH AVE & HAVANA ST

NAVD88 ELEV. 2297.37
CBM NO. 29S-42E
NAVD88 DATUM

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HORIZONTAL PLAN&PROFILE N/A
VERTICAL PROFILE ONLY N/A
SCALE

CURRENT CITY/COUNTY DESIGN STANDARDS ADOPTED FEB,2007

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DRAWN:	JMH	09/28/20
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CITY OF SPOKANE, WASHINGTON
DEPARTMENT OF ENGINEERING SERVICES
808 WEST SPOKANE FALLS BLVD.
SPOKANE, WASHINGTON 99201-3343
(509) 625-6300

PROJECT NAME: 21ST & CUBA DEVELPOMENT
SEGMENT LIMITS: JURISDICTION NOTES & TYP SECTIONS
PROJECT LIMITS: CUBA ST TO HAVANA ST

TYPE OF IMPROVEMENT: PUBLIC STREET
CITY PROJECT NUMBER: 2020612
CITY PLAN NUMBER: NOTES 27-25-43
EFN: WCE 20-2725

REGION NO.	STATE	FEDERAL AID PROJECT NO.	SHEET NO.
EASTERN	WASH.		

UNDERGROUND SERVICE ALERT
ONE-CALL NUMBER
811
CALL TWO BUSINESS DAYS BEFORE YOU DIG

21ST AVE

21ST AVE & CUBA ST

CUBA ST

HAVANA ST

BLOCK 128

PP OHP N-S-E-W

PP OHP E-W SVC-N

TR PP OHP E-W SVC-S

PP OHP S-W SVC-NW

PP OHP N-S-E

!!!CAUTION!!! OVERHEAD POWER LINES

EXISTING FIRE HYDRANT

EXISTING FIRE HYDRANT TO REMAIN

EXISTING 8" SEWER MAIN

EXISTING 8" WATER MAIN

EXISTING GRAVEL ROAD APPROXIMATELY 18-24' WIDE

EXISTING MAILBOX TO REMAIN. PRESERVE AND PROTECT DURING CONSTRUCTION.

STAND PIPE 2" PVC YELLOW

PP OHP N-E-W SVC-SE-SW

PP OHP E-W SVC-SE

PP OHP E-W SVC-SX2

PP OHP N-S-W SVC-SW

EXISTING STORM MANHOLES TO REMAIN. ADJUST RIMS TO FINISHED GRADE.

EXISTING CATCH BASIN AND STORM PIPE NETWORK

SSMH 8" PVC E-W S DIP 8.75 RIM: 2311.14

SDMH RIM: 2315.78

SDMH RIM: 2316.75

SDMH RIM: 2317.31

CB RIM: 2317.23

#35271.4432 4131 E 21ST AVE SALVATORE & SUZANNE DAVIDSON

#35271.4305 4203 E 21ST AVE DARYL JONES

#35271.4306 4215 E 21ST AVE DARYL JONES

#35274.3131 4130 E 21ST AVE KATHRYN GOTTBERG

#35274.3132 2114 S CUBA ST ADAM & NICOLE MILES

#35274.3111 4123 E 22ND AVE DIANE KOSOLA

#35274.3212 4238 S 21ST AVE C. NIELSON & L. ROSER

#35274.3205 4244 E 22ND AVE C. NIELSON & L. ROSER

#35274.3229 0 UNKNOWN ADDRESS FRANCES REVOCABLE LIVING TRUST

#35283.9115 4302 E CONGRESS AVE BRYAN & MIZU HOWELL

#35283.9136 2103 S HAVANA ST KATIE JOHNSTON

URBAN FORESTRY DEMO NOTES:

1. PRIOR TO SITE/ SOIL WORK AN ONSITE MEETING SHALL BE HELD WITH URBAN FORESTRY , CERTIFIED ARBORIST AND THE GENERAL CONTRACTOR. PLEASE CALL URBAN FORESTRY TO SCHEDULE AN ONSITE MEETING.
2. TREES BEING RETAINED IN THE PUBLIC RIGHT OF WAY MAY NEED ROOT TREATMENTS PRIOR TO DEMO OR INSTALLATION OF ROAD. THESE TREES WILL BE IDENTIFIED DURING ONSITE MEETING WITH THE ARBORIST AND GENERAL CONTRACTOR.
3. ALL TREES IN THE PUBLIC RIGHT OF WAY THAT ARE BEING RETAINED AND PROTECTED SHALL BE PRUNED PER CITY STANDARDS FOR STREET STREET CLEARANCE 14' PRIOR TO ANY SOIL/ SITE WORK AND PRIOR TO THE INSTALLATION OF THE TREE PROTECTION FENCING BY AN ISA CERTIFIED ARBORIST WITH A TREE PERMIT.
4. TREE PROTECTION FENCING SHALL BE INSTALLED PRIOR TO ANY SITE/ SOIL WORK AND MUST REMAIN INTACT THROUGHOUT ALL PHASES OF CONSTRUCTION.

CITY OF SPOKANE DEVELOPMENT SERVICE CENTER DEPARTMENT

-CONSTRUCTION PLANS-
April 1, 2021

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N W E S

GRAPHIC SCALE
30 0 15 30 60
(IN FEET)
1 inch = 30 ft.

FOR REFERENCE ONLY

WCE
WHIPPLE CONSULTING ENGINEERS
21 S. PINES RD,
SPOKANE VALLEY, WA 99206
PH: 509-893-2617 FAX: 509-926-0227

TODD R. WHIPPLE — STATE OF WASHINGTON — 25462 — REGISTERED PROFESSIONAL ENGINEER
4-1-21

S-4
4 OF 13

TOPOGRAPHIC SURVEY-FOR REFERENCE ONLY

SCALE: 1"=30'

DATE	BY	PROJ	DESCRIPTION
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HORIZONTAL PLAN&PROFILE 1"=30'
VERTICAL PROFILE ONLY N/A
SCALE

CURRENT CITY/COUNTY DESIGN STANDARDS ADOPTED FEB,2007

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REGISTERED ON SPOKANE

CITY OF SPOKANE, WASHINGTON
DEPARTMENT OF ENGINEERING SERVICES
808 WEST SPOKANE FALLS BLVD.
SPOKANE, WASHINGTON 99201-3343
(509) 625-6300

PROJECT NAME: 21ST & CUBA DEVELPOMENT

SEGMENT LIMITS: TOPOGRAPHIC SURVEY

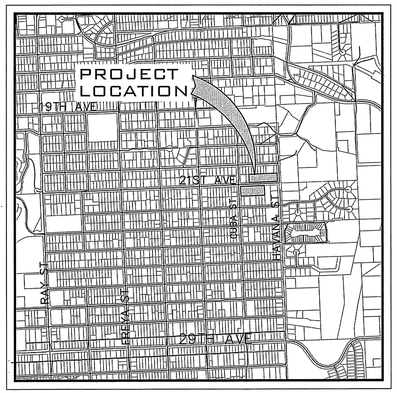
PROJECT LIMITS: CUBA ST TO HAVANA ST

TYPE OF IMPROVEMENT:	PUBLIC STREET
CITY PROJECT NUMBER	CITY PLAN NUMBER
2020612	TOPO 27-25-43
EFN: WCE 20-2725	

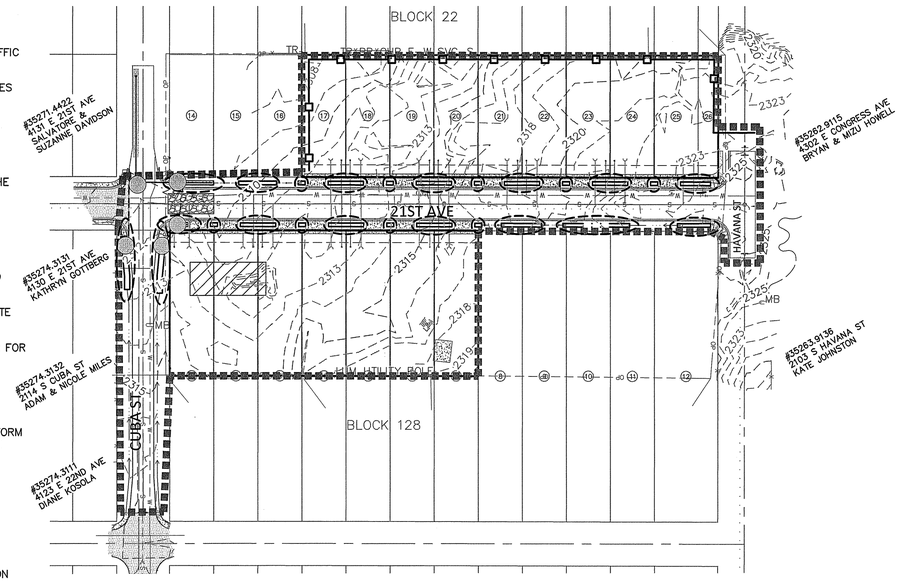
REGION NO.	STATE	FEDERAL AID PROJECT NO.	SHEET NO.
EASTERN	WASH.		

UNDERGROUND SERVICE ALERT
ONE-CALL NUMBER
811
CALL TWO BUSINESS DAYS BEFORE YOU DIG

SWPPP/EROSION CONTROL PLAN
21ST & CUBA DEVELPOMENT
LOCATED IN A PORTION OF
NE 1/4 & SE 1/4 OF S. 27, T. 25 N., R. 43 E., W.M.
CITY OF SPOKANE, WA



VICINITY MAP



SWPPP PLAN
SCALE: 1"=80'

INDEX

LEGEND

- STORM DRAINAGE POND – NO CONCRETE TRUCK WASHOUT AREA.
- BMP C233: SILT FENCE
- BMP C105: STABILIZED CONSTRUCTION ENTRY
- BMP C220: STORM DRAIN INLET PROTECTION
- BMP C151: CONCRETE HANDLING – MAY ONLY TAKE PLACE ON UNCOMPACTED SUBGRADE AFTER ASPHALT REMOVAL, AND IN A NON-LANDSCAPED AREA. OTHERWISE ANY CONCRETE WASHOUT MUST BE OFF SITE.
- LIMITS OF DISTURBANCE

WCE GENERAL NOTES

1. ALL MATERIALS, WORKMANSHIP, AND CONSTRUCTION OF SITE IMPROVEMENTS SHALL MEET OR EXCEED THE WSDOT /APWA STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION CURRENT EDITION AS MODIFIED BY THE STANDARDS AND SPECIFICATIONS SET FORTH IN THE CITY OF SPOKANE REGULATIONS AND OTHER APPLICABLE STATE AND FEDERAL REGULATIONS. WHERE THERE IS CONFLICT BETWEEN THESE PLANS AND THE SPECIFICATIONS, OR ANY APPLICABLE STANDARDS, THE HIGHER QUALITY STANDARD SHALL APPLY. ALL WORK WITHIN PUBLIC R.O.W. OR EASEMENTS SHALL BE INSPECTED AND APPROVED BY THE CITY OF SPOKANE INSPECTOR. INSPECTION SERVICES AND CONSTRUCTION CERTIFICATION TO BE PROVIDED BY DESIGNEE OF PROJECT SPONSOR/OWNER.

2. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES, AS SHOWN ON THESE PLANS, IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED UPON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE LOCAL UTILITY LOCATION CENTER AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATIONS OF EXISTING UTILITIES. THE CONTRACTOR SHALL VERIFY PERTINENT LOCATIONS AND ELEVATIONS, ESPECIALLY AT THE CONNECTION POINTS AND AT POTENTIAL UTILITY CONFLICTS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES THAT CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THESE PLANS.

3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FROM ALL APPLICABLE AGENCIES. THE CONTRACTOR SHALL NOTIFY THE CITY OF SPOKANE INSPECTOR AT LEAST 48 HOURS PRIOR TO THE START OF ANY EARTH DISTURBING ACTIVITY OR CONSTRUCTION ON ANY AND ALL PUBLIC IMPROVEMENTS.

4. THE CONTRACTOR SHALL COORDINATE AND COOPERATE WITH THE CITY OF SPOKANE AND ALL UTILITY COMPANIES WITH REGARD TO RELOCATIONS OR ADJUSTMENTS OF EXISTING UTILITIES DURING CONSTRUCTION, TO ASSURE THAT THE WORK IS ACCOMPLISHED IN A TIMELY FASHION, AND WITH A MINIMUM DISRUPTION OF SERVICE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING ALL PARTIES AFFECTED BY ANY DISRUPTION OF ANY UTILITY SERVICE.

5. THE CONTRACTOR SHALL HAVE ONE (1) SIGNED COPY OF THE APPROVED PLANS, ONE (1) COPY OF THE APPROPRIATE STANDARDS AND SPECIFICATIONS, AND ONE (1) COPY OF ANY PERMITS AND EXTENSION AGREEMENTS NEEDED FOR THE JOB ON-SITE AT ALL TIMES.

6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ASPECTS OF SAFETY INCLUDING, BUT NOT LIMITED TO: EXCAVATION, TRENCHING, SHORING, TRAFFIC CONTROL, AND SECURITY.

7. IF, DURING THE CONSTRUCTION PROCESS, CONDITIONS ARE ENCOUNTERED BY THE CONTRACTOR, HIS SUBCONTRACTORS, OR OTHER AFFECTED PARTIES WHICH COULD INDICATE A SITUATION THAT IS NOT IDENTIFIED IN THE PLANS OR SPECIFICATIONS, THE CONTRACTOR SHALL CONTACT THE ENGINEER IMMEDIATELY.

8. ALL REFERENCES TO ANY PUBLISHED STANDARDS SHALL REFER TO THE LATEST REVISION OF SAID STANDARD, UNLESS SPECIFICALLY STATED OTHERWISE.

9. FOR WORK AFFECTING PUBLIC ROADWAYS OR IF REQUIRED BY THE CITY OF SPOKANE, THE CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL AND PHASING PLAN IN ACCORDANCE WITH M.U.T.C.D. FOR APPROVAL PRIOR TO ANY CONSTRUCTION ACTIVITIES WITHIN OR AFFECTING THE RIGHT-OF-WAY, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ANY AND ALL TRAFFIC CONTROL DEVICES AS MAY BE REQUIRED BY SAID PLANS. PRIOR TO INSTALLATION. A PRECONSTRUCTION CONFERENCE SHALL BE HELD WITH THE CITY OF SPOKANE.

10. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL LABOR AND MATERIALS NECESSARY FOR THE COMPLETION OF THE INTENDED IMPROVEMENTS SHOWN ON THESE DRAWINGS OR DESIGNATED TO BE PROVIDED, INSTALLED, CONSTRUCTED, REMOVED OR RELOCATED UNLESS SPECIFICALLY NOTED OTHERWISE.

11. PER AGENCY STANDARDS THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING ROADWAYS FREE AND CLEAR OF ALL CONSTRUCTION DEBRIS AND DIRT TRACKED FROM THE SITE.

12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RECORDING RECORD INFORMATION ON A SET OF RECORD DRAWINGS KEPT AT THE CONSTRUCTION SITE AND AVAILABLE TO THE CITY OF SPOKANE INSPECTOR AT ALL TIMES.

13. DIMENSIONS FOR LAYOUT AND CONSTRUCTION ARE NOT TO BE SCALED FROM ANY DRAWING. FOR ADDITIONAL INFORMATION CONTACT THE ENGINEER FOR CLARIFICATION AND NOTE ON THE RECORD DRAWINGS.

14. ALL EROSION AND SEDIMENT CONTROL (E.S.C.) MEASURES SHALL BE INSTALLED AT THE LIMITS OF CONSTRUCTION PRIOR TO GROUND DISTURBING ACTIVITY. ALL E.S.C. MEASURES SHALL BE MAINTAINED IN GOOD REPAIR BY THE CONTRACTOR UNTIL SUCH TIME AS THE ENTIRE DISTURBED AREAS ARE STABILIZED WITH HARD SURFACE OR LANDSCAPING.

15. THE CONTRACTOR SHALL SEQUENCE INSTALLATION OF UTILITIES IN SUCH A MANNER AS TO MINIMIZE POTENTIAL UTILITY CONFLICTS. IN GENERAL, STORM SEWER AND SANITARY SEWER SHOULD BE CONSTRUCTED PRIOR TO INSTALLATION OF WATER LINES AND DRY UTILITIES. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE ALL UTILITY RELOCATIONS CONSISTENT WITH THE CONTRACTORS SCHEDULE FOR THIS PROJECT, WHETHER SHOWN OR NOT SHOWN, AS IT RELATES TO THE CONSTRUCTION ACTIVITIES CONTEMPLATED IN THESE PLANS.

16. ALL WORK WITHIN THE PUBLIC RIGHT-OF-WAY IS SUBJECT TO THE JURISDICTION OF THE CITY OF SPOKANE ENGINEERING DEPARTMENT STANDARD DETAILS AND SPECIFICATIONS.

17. ALL CONSTRUCTION OPERATIONS, INCLUDING THE WARMING UP, REPAIR, ARRIVAL, DEPARTURE OR RUNNING OF TRUCKS, EARTH MOVING EQUIPMENT, CONSTRUCTION EQUIPMENT AND ANY OTHER ASSOCIATED EQUIPMENT SHALL GENERALLY BE LIMITED TO THE TIME PERIOD APPROVED BY THE CITY OF SPOKANE.

18. BASED ON REQUIREMENTS FROM CITY OF SPOKANE, THE ENGINEER OR HIS DESIGNEE SHALL PERFORM MATERIALS TESTING AND QUALITY CONTROL ON THE PROJECT AND SHALL SUBMIT COPIES OF DAILY REPORTS, TEST REPORTS, PROJECT CERTIFICATION AND RECORD DRAWINGS TO CITY OF SPOKANE ENGINEER.

19. NO REVISIONS SHALL BE MADE TO THESE PLANS WITHOUT APPROVAL OF THE CITY OF SPOKANE ENGINEERS AND NOTIFICATION OF THE ENGINEER OF RECORD.

20. ON-SITE GRADING SHALL BE IN ACCORDANCE WITH THE APPROVED GRADING PLAN AND E.S.C. PLAN. ANY IMPORT OR EXPORT OF MATERIAL SHALL BE FROM A PREAPPROVED SOURCE/DESTINATION AND COORDINATED WITH THE CITY OF SPOKANE DEPARTMENT OF BUILDING AND PLANNING AT 509-625-6300. GRADING ON THIS SITE OR ANY OTHER SITE MUST COMPLY WITH ALL DEVELOPMENT REGULATIONS INCLUDING, BUT NOT LIMITED TO , GRADING PERMITS, S.E.P.A. REVIEW, TIMBER HARVEST PERMITS, CRITICAL AREAS, FLOOD PLAINS, DESIGNATED DRAINAGE WAYS, ETC.

21. THE CONTRACTOR IS CAUTIONED THAT IT IS THE UNDERSTANDING OF THE OWNER AND THE ENGINEER THAT SHOULD A CONFLICT OR DISCREPANCY IN THESE PLANS, SPECIFICATIONS, GENERAL NOTES OR PLANS ET.AL. DETERMINED TO BE PART OF THE OVERALL PROJECT, INCLUDING BUT NOT LIMITED TO THE ARCHITECTURAL PLANS, MECHANICAL PLANS, ELECTRICAL PLANS, LANDSCAPE PLANS, GENERAL SPECIAL PROVISIONS, ETC., THAT WITHOUT WRITTEN CLARIFICATION FROM THE ENGINEER, OWNER OR OTHER PROFESSIONAL, DURING THE BIDDING PROCESS, THAT IN ALL INSTANCES THE CONTRACTOR WILL BE REQUIRED TO BID THE HIGHER STANDARD. FAILURE TO DO SO MAY RESULT IN THE HIGHER STANDARD BEING REQUIRED BY THE OWNER, ENGINEER OR OTHER PROFESSIONAL WITH NO CHANGE IN VALUE TO THE CONTRACT VIA CHANGE ORDER OR OTHER MECHANISM.

22. CONSTRUCTION OF EVERY DRYWELL, INCLUDING FABRIC AND DRAINROCK, SHALL BE OBSERVED BY THE ON-SITE INSPECTOR TO CONFIRM THAT IT MEETS THE DESIGN DETAILS AND SPECIFICATIONS. DRYWELLS NOT OBSERVED SHALL HAVE THEIR PERFORMANCE VERIFIED BY A FULL-SCALE DRYWELL TEST.

23. DURING CONSTRUCTION THE CONTRACTOR IS RESPONSIBLE TO COORDINATE ANY AND ALL INCONSISTENCIES BETWEEN THESE PLANS AND CONSTRUCTION STAKING. CONTRACTOR ASSUMES RESPONSIBILITY TO CONSTRUCT TO THESE PLANS IN LIEU OF FIELD STAKING. SHOULD INCONSISTENCIES BE APPARENT THE CONTRACTOR SHALL CONTACT THE ENGINEER, OWNER, AND SURVEYOR TO RECTIFY THE DISCREPANCY PRIOR TO CONSTRUCTION EFFORT BEING APPLIED.

24. FAIR HOUSING ACT – SAFE HARBORS FOR COMPLIANCE

WHIPPLE CONSULTING ENGINEERS, INC. FOR THE PROJECT CONTAINED WITHIN THESE PLANS HAS USED THE FOLLOWING SAFE HARBOR FOR ADA ACCESSIBILITY FOR THOSE ISSUES CONSIDERED SITE DEVELOPMENT ISSUES.

ICC/ANSI A117.1 (2003), ALONG WITH THE FAIR HOUSING ACT, HUD'S FAIR HOUSING ACT REGULATIONS, AND GUIDELINES.

25. ALL FIRE LINES MUST BE INSTALLED BY AN APPROVED LEVEL 'U' CONTRACTOR OR A LEVEL 3 FIRE PROTECTION CONTRACTOR.

26. CONTRACTOR IS NOTIFIED THAT SOME OR ALL OF THE PAVEMENT CUTS TO INSTALL DRY UTILITIES, SEWER, WATER, STORM OR OTHER TIE-INS SHALL BE COORDINATED WITH THE CITY OF SPOKANE AS SPECIFIC PAVEMENT CUT POLICIES MAY BE IN EFFECT THAT ARE NOT NOTED ON THE PLANS

27. THE CONTRACTOR IS NOTED THAT IT IS NOT THE OWNERS, ENGINEERS, CITY'S NOR THE INSPECTION AND TESTING COMPANY'S (THE PARTIES) RESPONSIBILITY TO ANTICIPATE WHEN CONSTRUCTED ELEMENTS WILL BE READY FOR INSPECTION AND TESTING. THE CONTRACTOR IS RESPONSIBLE TO NOTIFY ALL PARTIES THAT CERTAIN CONSTRUCTED ELEMENTS ARE BEING INSTALLED AND ON WHAT DATE THEY WILL BE INSTALLED. IF SUCH FAILURE TO NOTIFY THEN RESULTS IN LACK OF INSPECTIONS AND TESTING SERVICES FOR CERTAIN ELEMENTS, THE CONTRACTOR SHOULD NOT EXPECT THAT THIS LACK OF INSPECTION AND TESTING WILL RESULT IN THE BLANKET APPROVAL OF SUCH ITEM. THE CONTRACTOR IS NOTIFIED THAT SUBSEQUENT REMOVAL AND RECONSTRUCTION OF SUCH ELEMENTS IS TO BE BORNE BY THE CONTRACTOR AND OR THEIR SUB-CONTRACTOR PROVIDING THE SERVICE AND THE INSTALLATION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAKE SURE THAT ALL PARTIES ARE ADEQUATELY NOTIFIED, NOTIFICATION WILL BE BY TWO MEANS FOR EACH REQUEST/OCCURRENCE THE ACCEPTABLE MEANS ARE AS FOLLOWS, EMAIL, TEXT, FAX OR PHONE, NOTIFICATION SHALL INCLUDE ELEMENT, DATE AND CONSTRUCTION START TIME. EXCESSIVE STANDBY TIME ON THE PART OF THE PARTIES MAY RESULT IN A BACK CHARGE TO THE CONTRACTOR.

STREETS
CITY OF SPOKANE
901 NORTH NELSON
SPOKANE, WASHINGTON 99201
PHONE: 232-8800
CONTACT: CLINT HARRIS

POWER / GAS
AVISTA UTILITIES
1411 EAST MISSION AVENUE
SPOKANE, WASHINGTON 99220
PHONE: 495-2967
CONTACT: JOHN LUSE

CABLE
COMCAST BROADBAND
1717 EAST BUCKEYE
SPOKANE, WASHINGTON, 99207
PHONE: 755-4800
CONTACT: BRENT FISHER

SEWER MAINTENANCE
CITY OF SPOKANE
909 EAST SPRAGUE AVENUE
SPOKANE, WASHINGTON 99202
PHONE: 625-7900
CONTACT: RAYLENE GENNETT

HEALTH
SPOKANE REGIONAL HEALTH
1101 WEST COLLEGE AVE. #402
SPOKANE, WASHINGTON 99260
PHONE: 324-1578
CONTACT: PAUL SAVAGE

INSPECTION
CITY OF SPOKANE
1423 NORTH NORMANDIE
SPOKANE, WASHINGTON 99201
PHONE: 625-7722
CONTACT: KELLY HEITSTUMAN

WATER
CITY OF SPOKANE
914 E NORTH FOOTHILLS DR
SPOKANE, WASHINGTON 99207
PHONE: 625-7800
CONTACT: SETH MCINTOSH

SOLID WASTE
CITY OF SPOKANE
1225 E MARIETTA AVENUE
SPOKANE, WASHINGTON 99207
PHONE: 625-7881
CONTACT: RICK HUGHES

GEO. TECH.
TBD

FIRE
SPOKANE FIRE DEPT.
44 WEST RIVERSIDE
SPOKANE, WASHINGTON 99201
PHONE: 625-7000
CONTACT: BRIAN SCHAEFFER, CH.

TELEPHONE
CENTURY LINK
904 NORTH COLUMBUS
SPOKANE, WASHINGTON, 99202
PHONE: 623-0319
CONTACT: ROB GEODE

ENGINEER
WHIPPLE CONSULTING ENGINEERS
21 S. PINES ROAD
SPOKANE VALLEY, WA 99206
PHONE: 893-2617
CONTACT: TODD WHIPPLE, P.E.

OWNER
MSK
P. O. BOX 147
SPOKANE VALLEY, WA 99016
PHONE: 294-4375
CONTACT: MIKE KINNEY
TRAVIS PASKE

CITY OF SPOKANE DEVELOPMENT SERVICE CENTER DEPARTMENT

-CONSTRUCTION PLANS-
April 1, 2021

DATE PLANS ACCEPTED:_____

AS-BUILD OF THIS PLAN AND CONSTRUCTION INFORMATION ARE REQUIRED PRIOR TO CITY ACCEPTANCE OF IMPROVEMENTS OR PROJECT COMPLETION.

*NOTE: PLAN ACCEPTANCE ONLY FOR COMFORMANCE WITH CITY STANDARDS. PLAN DESIGN AND ACCURACY IS THE RESPONSIBILITY OF THE STAMPING ENGINEER.

N
W E
S
GRAPHIC SCALE
80 0 40 80 160
(IN FEET)
1 inch = 80 ft.

WCE
WHIPPLE CONSULTING ENGINEERS
21 S. PINES RD,
SPOKANE VALLEY, WA 99206
PH: 509-893-2617 FAX: 509-926-0227

TODD R. WHIPPLE – STATE OF WASHINGTON – 25462 – REGISTERED PROFESSIONAL ENGINEER
4-1-21

S-5
5 OF 13

DATE	BY	PROJ	DESCRIPTION
4/01/21	JMH	C	FINAL PLAN SUBMITTAL FOR APPROVAL
2/10/21	JMH	B	REVISIONS TO PLANS PER C.O.S. COMMENTS
11/10/20	JMH	A	REVISIONS TO PLANS PER C.O.S. COMMENTS
10/08/20	JMH	–	ORIGINAL SUBMITTAL

REVISIONS

DATE	BY	PROJ.	E.F.N. , U.S.N.	FROM	TO

AS BUILT

COUNCIL ACCEPT DATE	FROM	TO	ORD. NO.	DATE	FILE NO.

GRADE ORDINANCE LIST

NAVD88 = (OLD CRM ELEV.) – (13.13) | AS OF JANUARY, 2000 USE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)

BENCH MARK LOCATION
INTERSECTION OF 29TH AVE & HAVANA ST

NAVD88 ELEV. 2297.37
CBM NO. 29S-42E
NAVD88 DATUM

BAR IS ONE INCH ON ORIGINAL DRAWING.
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

HORIZONTAL PLAN&PROFILE 1"=80'
VERTICAL PROFILE ONLY N/A
SCALE

CURRENT CITY/COUNTY DESIGN STANDARDS ADOPTED FEB,2007

	BY	DATES
DRAWN:	JMH	09/28/20
REVISED:	JMH	2/08/21
CHECKED:	TRW	2/10/21
APPROVED:	TRW	4/01/21

CITY OF SPOKANE, WASHINGTON
DEPARTMENT OF ENGINEERING SERVICES
808 WEST SPOKANE FALLS BLVD.
SPOKANE, WASHINGTON 99201-3343
(509) 625-6300

PROJECT NAME: 21ST & CUBA DEVELPOMENT
SEGMENT LIMITS: SWPPP/EROSION CONTROL PLAN
PROJECT LIMITS: CUBA ST TO HAVANA ST
TYPE OF IMPROVEMENT: EROSION CONTROL
CITY PROJECT NUMBER: 2020612
CITY PLAN NUMBER: COVER 27-25-43
EFN: WCE 20-2725

REGION NO.	STATE	FEDERAL AID PROJECT NO.	SHEET NO.
EASTERN	WASH.		

UNDERGROUND SERVICE ALERT
ONE-CALL NUMBER
811
CALL TWO BUSINESS DAYS BEFORE YOU DIG

EROSION & SEDIMENT CONTROL

GENERAL NOTES AND INFORMATION

1. AN EROSION/SEDIMENT CONTROL **(E.S.C.)** PLAN IS REQUIRED FOR THIS PROJECT. IMPLEMENTATION OF THE **E.S.C. PLAN,** AND CONSTRUCTION, MAINTENANCE, AND UPGRADING OF THE **E.S.C.** FACILITIES ARE THE RESPONSIBILITY OF THE DEVELOPER UNTIL ALL CONSTRUCTION IS COMPLETED AND ACCEPTED BY **CITY OF SPOKANE,** OR UNTIL VEGETATION IS ESTABLISHED THROUGHOUT THE SITE, AND ACCEPTED BY **CITY OF SPOKANE,** WHICHEVER IS LATER.
2. APPROVAL OF THE **E.S.C. PLAN** DOES NOT CONSTITUTE APPROVAL OF ANY OF THE PROPOSED ROAD, STORM DRAINAGE, GRADING OR UTILITY DESIGN ELEMENTS SHOWN ON THE **E.S.C. PLAN.**
3. THE EROSION/SEDIMENT CONTROL MEASURES SHOWN ARE THE MINIMUM REQUIREMENTS FOR THE ANTICIPATED SITE CONDITIONS. THE CONTRACTOR SHALL INSPECT AND MAINTAIN THESE **E.S.C.** MEASURES DAILY, AND SHALL MAINTAIN AND UPGRADE THESE MEASURES AS NECESSARY TO PREVENT SEDIMENT-LADEN WATER FROM EITHER FLOWING OFF SITE, OR INTO NEW/EXISTING STORM DRAINAGE FACILITIES, SUCH AS DRYWELLS, CULVERTS, OR GRAVEL GALLERIES.
4. GEOTEXTILE FABRIC IS TO BE PLACED ON THE RIMS, CATCH BASINS AND INLETS UNTIL SUCH TIME THAT THE VEGETATION ON THE SITE IS ESTABLISHED AND THE THREAT OF SEDIMENT DEPOSITION INTO THE DRAINAGE SYSTEM IS MITIGATED.
5. THE SILT FENCES SHALL BE INSTALLED BY THE CONTRACTOR PRIOR TO OTHER SITE WORK, AND MAINTAINED THROUGHOUT THE DURATION OF CONSTRUCTION.
6. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING ROCK CONSTRUCTION ENTRIES AT ANY AND ALL LOCATIONS USED TO ENTER OR EXIT THE PROJECT SITE. SEE DETAIL,
7. THE CONTRACTOR IS RESPONSIBLE FOR DESIGNATING A LOCATION WHERE CONCRETE TRUCKS AND EQUIPMENT CAN BE WASHED OUT, NOT LOCATED NEAR OR DRAINING INTO A STORM DRAINAGE AREA.
8. PROPERTY OWNER: **MIKE KINNEY**
   PERMIT APPLICANT: **WHIPPLE CONSULTING ENGINEERS, 509-893-2617**
   CONTACT PERSON ON SITE: **TBD**
9. PROJECT LOCATION: **IN SPOKANE, WASHINGTON IN THE NE 1/4 & SE 1/4 OF SECTION 27 TOWNSHIP 25 N., RANGE 43 E. W.M.**
10. PROJECT DESCRIPTION: **THIS PROJECT CONSISTS OF 16 NEW LOTS ON AN EXTENSION OF AN EXISTING ROAD.. THE PROJECT WILL REQUIRE CONSTRUCTION OF NEW PAVING, WATER, SEWER AND STORM DRAINAGE FACILITIES.**
11. DESCRIPTION OF **E.S.C.** MEASURES: USE OF SILT FENCES AND SEDIMENTATION FILTERS. ALL **E.S.C.** MEASURES MENTIONED ABOVE ARE TEMPORARY AND WILL BE REMOVED AFTER SITE IS LANDSCAPED.
12. EXISTING VEGETATION: **TREES, SHRUBS, & FIELD GRASSES**
13. PLAN PREPARATION DATE: **OCTOBER, 2020**
14. SOILS: **(3118) ROCKLY-COCOLALLA COMPLEX, 0-8% SLOPES; (7103) XEROLLS SILT LOAM, WARM, MASS WASTED, 8-25% SLOPES; (7131) URBAN LAND-NORTHSTAR, DISTURBED COMPLEX, 3-8% SLOPES**
15. **STABILIZATION OF DENUDED AREAS:**
    ANY DISTURBED AREAS, WHICH WOULD BE LEFT BARE FOR MORE THAN 7 DAYS AND ARE NOT INTENDED TO BE REWORKED WITHIN 30-45 DAYS SHALL BE SEEDED WITH A FAST STARTING NATIVE DRYLAND GRASS SUCH AS ANNUAL RYE, OR APPROVED EQUAL, AT A RATE OF 60 lbs/ACRE.
16. **CONTROL OF POLLUTANTS:**
    ANY SPILLS WILL BE HANDLED ACCORDING TO **D.O.E. AND D.O.H.** GUIDELINES.
17. **LIMITS OF GRADING:**
    DURING THE COURSE OF CONSTRUCTION, THE AMOUNT OF DISTURBED AREA SHALL BE KEPT TO A MINIMUM AND SHALL BE LIMITED TO THE AREA SHOWN AS "LIMITS OF GRADING" ON THIS SHEET OF THE EROSION CONTROL PLANS.

MAINTENANCE

1. **THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLATION AND MAINTENANCE OF THE TEMPORARY E.S.C.** MEASURES.
2. SEDIMENT BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RUNOFF-PRODUCING RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL.
3. NECESSARY REPAIRS TO BARRIERS OR REPLACEMENT OF FILTER FABRIC SHALL BE ACCOMPLISHED PROMPTLY.
4. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH RUNOFF-PRODUCING RAINFALL. DEPOSITS MUST BE REMOVED WHEN THE LEVEL OF DEPOSITION REACHES APPROXIMATELY 1/2 THE HEIGHT OF THE BARRIER.
5. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE **E.S.C.** STRUCTURE IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND SEEDED.
6. ALL TEMPORARY AND PERMANENT **E.S.C.** PRACTICES SHALL BE MAINTAINED AND REPAIRED AS NEEDED TO ASSURE CONTINUED PERFORMANCE OF THEIR INTENDED FUNCTION.
7. ALL TEMPORARY **E.S.C.** MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION IS ACHIEVED OR AFTER THE TEMPORARY BMP'S ARE NO LONGER NEEDED. TRAPPED SEDIMENT SHALL BE REMOVED OR STABILIZED ON SITE. DISTURBED SOIL AREAS RESULTING FROM REMOVAL SHALL BE PERMANENTLY STABILIZED.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANING DIRT, MUD AND OTHER CONSTRUCTION DEBRIS WHICH MAY ACCUMULATE ON PAVED STREETS ADJACENT TO THE SITE AS A RESULT OF CONSTRUCTION ACTIVITY. CLEANING SHALL BE ON AN "AS NEEDED" BASIS USING SWEEPING AND WATER TO WASH THE CONSTRUCTION DEBRIS FROM THE STREET.
9. ON-SITE DUST CONTROL SHALL BE ACCOMPLISHED BY USING WATER. APPLICATIONS OF WATER MAY BE REQUIRED SEVERAL TIMES PER DAY DURING CONSTRUCTION ACTIVITY.

E.S.C. STANDARD PLAN NOTES FROM APPENDIX 9A OF THE SPOKANE REGIONAL STORMWATER MANUAL

1. THE FOLLOWING CONSTRUCTION SEQUENCE SHALL BE FOLLOWED IN ORDER TO BEST MINIMIZE THE POTENTIAL FOR EROSION AND SEDIMENTATION CONTROL PROBLEMS.

(A) CLEAR AND GRUB SUFFICIENTLY FOR INSTALL OF TEMPORARY **E.S.C.** BMP'S;

(B) INSTALL TEMPORARY **E.S.C.** BMPs, CONSTRUCTING SEDIMENT TRAPPING BMP'S AS ONE OF THE FIRST STEPS PRIOR TO GRADING;

(C) CLEAR, GRUB AND ROUGH GRADE FOR ROADS, TEMPORARY ACCESS POINTS AND UTILITY LOCATIONS;

(D) STABILIZE ROADWAY APPROACHES AND TEMPORARY ACCESS POINTS WITH THE APPROPRIATE CONSTRUCTION ENTRY BMP;

(E) CLEAR, GRUB AND GRADE INDIVIDUAL LOTS OR GROUPS OF LOTS;

(F) TEMPORARILY STABILIZE, THROUGH RE-VEGETATION OR OTHER APPROPRIATE BMP'S, LOTS OR GROUPS OF LOTS IN SITUATIONS WHERE SUBSTANTIAL CUT OR FILL SLOPES ARE A RESULT OF THE SITE GRADING;

(G) CONSTRUCT ROADS, BUILDINGS, PERMANENT STORMWATER FACILITIES. (I.E. INLETS, PONDS, U.I.C.FACILITIES, ETC.);

(H) PROTECT ALL PERMANENT STORMWATER FACILITIES UTILIZING THE APPROPRIATE BMP'S;

(I) INSTALL PERMANENT **E.S.C.** CONTROLS, WHEN APPLICABLE; AND,

(J) REMOVE TEMPORARY **E.S.C.** CONTROLS WHEN;

2. PERMANENT **E.S.C.** CONTROLS. WHEN APPLICABLE, HAVE BEEN COMPLETELY INSTALLED;
3. ALL LAND-DISTURBING ACTIVITIES THAT HAVE THE POTENTIAL TO CAUSE EROSION AND SEDIMENTATION PROBLEMS HAVE CEASED; AND,
4. VEGETATION HAD BEEN ESTABLISHED IN THE AREAS NOTED AS REQUIRING VEGETATION ON THE ACCEPTED **E.S.C.** PLAN ON FILE WITH THE LOCAL JURISDICTION.
5. INSPECT ALL ROADWAYS, AT THE END OF EACH DAY, ADJACENT TO THE CONSTRUCTION ACCESS ROUTE. IF IT IS EVIDENT THAT SEDIMENT HAS BEEN TRACKED OFF SITE AND/OR BEYOND THE ROADWAY APPROACH, CLEANING IS REQUIRED.
6. IF SEDIMENT REMOVAL IS NECESSARY PRIOR TO STREET WASHING, IT SHALL BE REMOVED BY SHOVELING OR PICKUP SWEEPING AND TRANSPORTED TO A CONTROLLED SEDIMENT DISPOSAL AREA.
7. IF STREET WASHING IS REQUIRED TO CLEAN SEDIMENT TRACKED OFF SITE, ONCE SEDIMENT HAS BEEN REMOVED, STREET WASH WASTEWATER SHALL BE CONTROLLED BY PUMPING BACK ON-SITE OR OTHERWISE PREVENTED FROM DISCHARGING INTO SYSTEMS TRIBUTARY TO WATERS OF THE STATE.
8. RESTORE CONSTRUCTION ACCESS ROUTE EQUAL TO OR BETTER THAN THE PRE-CONSTRUCTION CONDITION.
9. RETAIN THE DUFF LAYER, NATIVE TOPSOIL, AND NATURAL VEGETATION IN AND UNDISTURBED STATE TO THE MAXIMUM EXTENT PRACTICAL.
10. INSPECT SEDIMENT CONTROL BMP'S WEEKLY AT A MINIMUM, DAILY DURING A STORM EVENT, AND AFTER ANY DISCHARGE FROM THE SITE (STORMWATER OR NON-STORMWATER). THE INSPECTION FREQUENCY MAY BE REDUCED TO ONCE A MONTH IF THE SITE IS STABILIZED AND INACTIVE.
11. CONTROL FUGITIVE DUST FROM CONSTRUCTION ACTIVITY IN ACCORDANCE WITH THE STATE AND/OR LOCAL AIR QUALITY CONTROL AUTHORITIES WITH JURISDICTION OVER THE PROJECT AREA.
12. STABILIZE EXPOSED UNWORKED SOILS (INCLUDING STOCKPILES), WHETHER AT FINAL GRADE OR NOT WITHIN 10 DAYS DURING THE REGIONAL DRY SEASON (JULY 1 TO SEPTEMBER 30) AND WITHIN 5 DAYS DURING THE REGIONAL WET SEASON (OCTOBER 1 THRU JUNE 30). SOILS MUST BE STABILIZED AT THE END OF A SHIFT BEFORE A HOLIDAY WEEKEND IF NEEDED BASED ON THE WEATHER FORECAST. THE TIME LIMIT MAY ONLY BE ADJUSTED BY A LOCAL JURISDICTION WITH A "QUALIFIED LOCAL PROGRAM," IF IT CAN BE DEMONSTRATED THAT THE RECENT PRECIPITATION JUSTIFIES A DIFFERENT STANDARD AND MEETS THE REQUIREMENTS SET FORTH IN THE CONSTRUCTION STORMWATER GENERAL PERMIT.
13. PROTECT INLETS, DRYWELLS, CATCH BASINS AND OTHER STORMWATER MANAGEMENT FACILITIES FROM SEDIMENT, WHETHER OR NOT FACILITIES ARE OPERABLE,
14. KEEP ROADS ADJACENT TO INLETS CLEAN.
15. INSPECT INLETS WEEKLY AT A MINIMUM AND DAILY FOR STORM EVENTS.
16. CONSTRUCT STORMWATER CONTROL FACILITIES (DETENTION/RETENTION STORAGE POND OR SWALES) BEFORE GRADING BEGINS. THESE FACILITIES SHALL BE OPERABLE BEFORE THE CONSTRUCTION OF IMPERVIOUS SITE IMPROVEMENTS.
17. STOCKPILE MATERIALS (SUCH AS TOPSOIL) ON SITE, KEEPING OFF OF ROADWAY AND SIDEWALKS.
18. COVER, CONTAIN AND PROTECT ALL CHEMICALS, LIQUID PRODUCTS, PETROLEUM PRODUCT, AND NON-INERT WASTES PRESENT ON SITE FROM VANDALISM (SEE CHAPTER 173-304 W.A.C. FOR THE DEFINITION OF INERT WASTE), USE SECONDARY CONTAINMENT FOR ON-SITE FUELING TANKS.
19. CONDUCT MAINTENANCE AND REPAIR OF HEAVY EQUIPMENT AND VEHICLES INVOLVING OIL CHANGES, HYDRAULIC SYSTEMS REPAIRS, SOLVENT AND DEGREASING OPERATIONS, FUEL TANK DRAIN DOWN AND REMOVAL, AND OTHER ACTIVITIES THAT MAY RESULT IN DISCHARGE OR SPILLAGE OF POLLUTANTS TO THE GROUND OR INTO STORMWATER RUNOFF USING SPILL RECONVENTION MEASURES, SUCH AS DRIP PANS. CLEAN ALL CONTAMINATED SURFACES IMMEDIATELY FOLLOWING ANY DISCHARGE OR SPILL INCIDENT. IF RAINING OVER EQUIPMENT OR VEHICLE, PERFORM EMERGENCY REPAIRS ON SITE USING TEMPORARY PLASTIC FUELING BENEATH THE VEHICLE.
20. CONDUCT APPLICATION OF AGRICULTURAL CHEMICALS, INCLUDING FERTILIZERS AND PESTICIDES, IN SUCH A MANNER, AND AT APPLICATION RATES, THAT INHIBITS THE LOSS OF CHEMICALS INTO STORMWATER RUNOFF FACILITIES. AMEND MANUFACTURER'S RECOMMENDED APPLICATION RATES AND PROCEDURES TO MEET THIS REQUIREMENT, IF NECESSARY.
21. INSPECT ON A REGULAR BASIS (AT A MINIMUM WEEKLY, AND DAILY DURING/AFTER A RUNOFF PRODUCING EVENT) AND MAINTAIN ALL **EROSION AND SEDIMENT CONTROL** BMP'S TO ENSURE SUCCESSFUL PERFORMANCE OF THE BMP'S. NOTE THAT INLET PROTECTIONS DEVICES SHALL BE CLEANED OR REMOVED AND REPLACE BEFORE SIX INCHES OF SEDIMENT CAN ACCUMULATE.
22. REMOVE TEMPORARY **E.S.C.** BMP'S WITHIN 30 DAYS AFTER THE TEMPORARY BMP'S ARE NO LONGER NEEDED. PERMANENTLY STABILIZE AREA THAT ARE DISTURBED DURING REMOVAL PROCESS.
23. A SITE LOG SHALL BE COMPLETE WITH THE PRODUCT PER SVSS 5.4.

SRCAA GENERAL NOTES

1. DUST EMISSIONS DURING DEMOLITION, CONSTRUCTION, AND EXCAVATION PROJECTS MUST BE CONTROLLED. THIS MAY REQUIRE THE USE OF WATER SPRAYS, TARPS, SPRINKLERS, OR SUSPENSION OF ACTIVITY DURING CERTAIN WEATHER CONDITIONS.
2. MEASURES MUST BE TAKEN TO AVOID THE DEPOSITION OF DIRT AND MUD FROM UNPAVED SURFACES ONTO PAVED SURFACES. IF TRACKING OR SPILLS OCCUR ON PAVED SURFACES, MEASURES MUST BE TAKEN IMMEDIATELY TO CLEAN THESE SURFACES.
3. DEBRIS GENERATED, AS A RESULT OF THIS PROJECT, MUST BE DISPOSED OF BY MEANS OTHER THAN BURNING (I.E., CONSTRUCTION WASTE, VEGETATIVE WASTE, ECT.).
4. SPOKANE CLEAN AIR (SRCAA) STRONGLY RECOMMENDS THAT ALL TRAVELED SURFACES (I.E., INGRESS, EGRESS, PARKING AREAS, ACCESS ROADS, ECT.) BE PAVED AND KEPT CLEAN TO MINIMIZE DUST EMISSIONS.
5. IF OBJECTIONABLE ODORS RESULT FROM THIS PROJECT, EFFECTIVE CONTROL APPARATUS AND MEASURES MUST BE TAKEN TO REDUCE ODORS TO A MINIMUM.
6. SPECIAL ATTENTION SHOULD BE GIVEN TO PROPER MAINTENANCE OF DIESEL POWERED CONSTRUCTION EQUIPMENT TO REDUCE THE IMPACT OF DIESEL EXHAUST, A SUSPECTED CARCINOGEN.
7. A NOTICE OF CONSTRUCTION AND APPLICATION FOR APPROVAL IS REQUIRED TO BE SUBMITTED AND APPROVED BY SRCAA PRIOR TO THE CONSTRUCTION, INSTALLATION, OR ESTABLISHMENT OF AN AIR POLLUTION SOURCE. THIS INCLUDES EMERGENCY GENERATORS RATED AT 500 HP(375 KW) OR HIGHER, NATURAL GAS HEATING EQUIPMENT UNITS RATED AT FOUR MMBTU/HOUR OR HIGHER (INPUT), AND HEATING EQUIPMENT UNITS FIRED WITH OTHER FUELS (E.G., DIESEL) RATED AT ONE MMBTU/HOUR (INPUT) OR HIGHER. CONTACT SPOKANE CLEAN AIR (SRCAA) FOR A NOTICE OF CONSTRUCTION APPLICATION.
8. NOTICE OF INTENT MUST BE SUBMITTED TO SRCAA PRIOR TO ANY DEMOLITION PROJECT OR ASBESTOS PROJECT. AN ASBESTOS SURVEY MUST BE DONE BY AN HERA-ACCREDITED BUILDING INSPECTOR PRIOR TO THE DEMOLITION OR RENOVATION OF BUILDINGS TO DETERMINE IF ASBESTOS-CONTAINING MATERIAL IS PRESENT AT THE SITE. CONTACT SPOKANE CLEAN AIR (SRCAA) FOR A NOTICE OF INTENT APPLICATION.

CITY OF SPOKANE DEVELOPMENT SERVICE CENTER DEPARTMENT

-CONSTRUCTION PLANS-
April 1, 2021

DATE PLANS ACCEPTED:_____

AS-BUILD OF THIS PLAN AND CONSTRUCTION INFORMATION ARE REQUIRED PRIOR TO CITY ACCEPTANCE OF IMPROVEMENTS OR PROJECT COMPLETION.

***NOTE: PLAN ACCEPTANCE ONLY FOR COMFORMANCE WITH CITY STANDARDS. PLAN DESIGN AND ACCURACY IS THE RESPONSIBILITY OF THE STAMPING ENGINEER.**

WCE
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TODD R. WHIPPLE — STATE OF WASHINGTON — 25462 — REGISTERED PROFESSIONAL ENGINEER
4-1-21

S-6
6 OF 13

DATE	BY	PROJ	DESCRIPTION
4/01/21	JMH	C	FINAL PLAN SUBMITTAL FOR APPROVAL
2/10/21	JMH	B	REVISIONS TO PLANS PER C.O.S. COMMENTS
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REVISIONS

DATE	BY	PROJ.	E.F.N. , U.S.N.	FROM	TO

AS BUILT

COUNCIL ACCEPT DATE

FROM	TO	GRD. NO.	DATE	FILE NO.

GRADE ORDINANCE LIST

NAVD88 = (OLD CBM ELEV.) – (13.13) | AS OF JANUARY, 2000 USE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)

BENCH MARK LOCATION
INTERSECTION OF 29TH AVE & HAVANA ST

NAVD88 ELEV. 2297.37
CBM NO. 29S-42E
NAVD88 DATUM

BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

HORIZONTAL PLAN&PROFILE N/A
VERTICAL PROFILE ONLY N/A
SCALE

CURRENT CITY/COUNTY DESIGN STANDARDS ADOPTED FEB,2007

	BY	DATES
DRAWN:	JMH	09/28/20
REVISED:	JMH	2/08/21
CHECKED:	TRW	2/10/21
APPROVED:	TRW	4/01/21

THE CITY OF SPOKANE

CITY OF SPOKANE, WASHINGTON
DEPARTMENT OF ENGINEERING SERVICES
808 WEST SPOKANE FALLS BLVD.
SPOKANE, WASHINGTON 99201-3343
(509) 625-6300

PROJECT NAME: 21ST & CUBA DEVELPOMENT
SEGMENT LIMITS: SWPPP NOTES
PROJECT LIMITS: CUBA ST TO HAVANA ST

TYPE OF IMPROVEMENT: EROSION CONTROL
CITY PROJECT NUMBER: 2020612
CITY PLAN NUMBER: NOTES 27-25-43
EFN: WCE 20-2725

REGION NO.	STATE	FEDERAL AID PROJECT NO.	SHEET NO.
EASTERN	WASH.		

UNDERGROUND SERVICE ALERT
ONE-CALL NUMBER
811
CALL TWO BUSINESS DAYS BEFORE YOU DIG

BMP C233: SILT FENCE

INFORMATION TAKEN FROM CHAPTER 7 OF THE EASTERN WASHINGTON STORMWATER MANAGEMENT MANUAL 2004 EDITION

PURPOSE:

USE OF SILT FENCE REDUCES THE TRANSPORT OF COARSE SEDIMENT FROM A CONSTRUCTION SITE BY PROVIDING A TEMPORARY PHYSICAL BARRIER TO SEDIMENT AND REDUCING THE RUNOFF VELOCITIES OF OVERLAND FLOW. SEE FIGURE 7.3.20 OF THE EASTERN WASHINGTON STORMWATER MANUAL OR DETAIL BELOW FOR DETAILS ON SILT FENCE CONSTRUCTION.

CONDITIONS OF USE:

SILT FENCE MAY BE USED DOWNSLOPE OF ALL DISTURBED AREAS. SILT FENCE IS NOT INTENDED TO TREAT CONCENTRATED FLOWS, NOR IS IT INTENDED TO TREAT SUBSTANTIAL AMOUNTS OF OVERLAND FLOW. ANY CONCENTRATED FLOWS MUST BE CONVEYED THROUGH THE DRAINAGE SYSTEM TO A SEDIMENT POND. THE ONLY CIRCUMSTANCE IN WHICH OVERLAND FLOW CAN BE TREATED SOLELY BY A SILT FENCE, RATHER THAT BY A SEDIMENT POND, IS WHEN THE AREA DRAINING TO THE FENCE IS ONE ACRE OR LESS AND FLOW RATES ARE LESS THAN 0.5 CFS.

SILT FENCES SHOULD NOT BE CONSTRUCTED IN STREAMS OR USED IN V-SHAPED DITCHES. THEY ARE NOT AN ADEQUATE METHOD OF SILT CONTROL FOR ANYTHING DEEPER THAT SHEET OR OVERLAND FLOW.

DESIGN AND INSTALLATION:

DRAINAGE AREA OF 1 ACRE OR LESS OR IN COMBINATION WITH SEDIMENT BASIN IN A LARGER SITE.

MAXIMUM SLOPE STEEPNESS (NORMAL OR PERPENDICULAR TO FENCE LINE) 1:1.

MAXIMUM SHEET OR OVERLAND FLOW PATH LENGTH TO THE FENCE OF 100 FEET.

NO FLOWS GREATER THAN 0.5 CFS.

THE GEOTEXTILE USED SHALL MEET THE FOLLOWING STANDARDS. ALL GEOTEXTILE PROPERTIES LISTED BELOW ARE MINIMUM AVERAGE ROLL VALUES.

POLYMETRIC MESH AOS (ASTM D4751)	0.60MM MAX. FOR SLIT WOVENS (#30 SIEVE). 0.30MM MAX. FOR ALL OTHER GEOTEXTILE TYPES (#50 SIEVE). 0.15MM MAX. FOR ALL FABRIC TYPES (#100 SIEVE).
WATER PERMITTIVITY (ASTM D4491)	0.02/SEC MIN.
GRAB TENSILE STRENGTH (ASTM D4632)	180 LBS. MIN. FOR EXTRA STRENGTH FABRIC. 100 LBS. MIN. FOR STANDARD STRENGTH FABRIC
GRAB TENSILE ELONGATION (ASTM D4632)	30% MAX,
ULTRAVIOLET RESISTANCE (ASTM D4335)	70% MIN.

STANDARD STRENGTH FABRICS SHALL BE SUPPORTED WITH WIRE MESH, CHICKEN WIRE, 2-INCH X 2-INCH, SAFETY FENCE, OR JUST MESH TO INCREASE THE STRENGTH OF FABRIC. SILT FENCE MATERIALS ARE AVAILABLE THAT HAVE SYNTHETIC MESH BACKING ATTACHED.

FILTER FABRIC MATERIAL SHALL CONTAIN ULTRAVIOLET RAY INHIBITORS AND STABILIZERS TO PROVIDE A MINIMUM OF SIX MONTHS OF EXPECTED USABLE CONSTRUCTION LIFE AT A TEMPERATURE RANGE OF 0°F. TO 120°F.

100 PERCENT BIODEGRADABLE SILT FENCE IS AVAILABLE THAT IS STRONG, LONG LASTING, AND CAN BE LEFT IN PLACE AFTER THE PROJECT IS COMPLETED, IF PERMITTED BY LOCAL REGULATIONS.

CONTRACTOR SHALL INSTALL AND MAINTAIN TEMPORARY SILT FENCES AT THE LOCATIONS SHOWN IN THE PLANS. THE SILT FENCE SHALL BE CONSTRUCTED IN THE AREAS OF CLEARING, GRADING, OR DRAINAGE PRIOR TO STARTING THOSE ACTIVITIES. A SILT FENCE SHALL NOT BE CONSIDERED TEMPORARY IF THE SILT FENCE MUST OPERATE BEYOND THE LENGTH OF THE CONTRACT. THE SILT FENCE SHALL PREVENT SOIL CARRIED BY RUNOFF WATER FROM GOING BENEATH, THROUGH, OR OVER THE TOP OF THE SILT FENCE, BUT SHALL ALLOW WATER TO PASS THROUGH THE FENCE.

THE MINIMUM HEIGHT OF THE TOP OF SILT FENCE SHALL BE 2 FEET AND THE MAXIMUM SHALL BE 2.5 FEET ABOVE THE ORIGINAL GROUND SURFACE.

DESIGN AND INSTALLATION: (CONTINUED)

THE GEOTEXTILE SHALL BE SEWN TOGETHER AT THE POINT OF MANUFACTURE, OR AT AN APPROVED LOCATION AS DETERMINED BY THE ENGINEER, TO FORM GEOTEXTILE LENGTHS AS REQUIRED. ALL SEWN SEAMS SHALL BE LOCATED AT A SUPPORT POST. ALTERNATIVELY, TWO SECTIONS OF SILT FENCE CAN BE OVERLAPPED, PROVIDED THE CONTRACTOR CAN DEMONSTRATE, TO THE SATISFACTION OF THE ENGINEER, THAT THE OVERLAP IS LONG ENOUGH AND THAT THE ADJACENT FENCE SECTIONS ARE CLOSE ENOUGH TOGETHER TO PREVENT SILT LADEN WATER FROM ESCAPING THROUGH THE FENCE AT THE OVERLAP.

THE GEOTEXTILE SHALL BE ATTACHED ON THE UP-SLOPE SIDE OF THE POSTS AND SUPPORT SYSTEM WITH STAPLES, WIRE, OR IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. THE GEOTEXTILE SHALL BE ATTACHED IN A MANNER THAT REDUCES THE POTENTIAL FOR GEOTEXTILE TEARING AT THE STAPLES, WIRE, OR OTHER CONNECTION DEVICE. SILT FENCE BACKUP SUPPORT FOR THE GEOTEXTILE IN THE FORM OF A WIRE OF PLASTIC MESH IS DEPENDENT ON THE PROPERTIES OF THE GEOTEXTILE SELECTED FOR SUE. IF WIRE OR PLASTIC BACK-UP MESH IS USED, THE MESH SHALL BE FASTENED SECURELY TO THE UP-SLOPE OF THE POSTS WITH THE GEOTEXTILE BEING UP-SLOPE OF THE MESH BACK SUPPORT.

THE GEOTEXTILE AT THE BOTTOM OF THE FENCE HALL BE BURIED IN A TRENCH TO A MINIMUM DEPTH OF 4" BELOW THE GROUND SURFACE. THE TRENCH SHALL BE BACKFILLED AND THE SOIL TAMPED IN PLACE OVER THE BURIED PORTION OF THE GEOTEXTILE, SUCH THAT NO FLOW CAN PASS BENEATH THE FENCE AND SCOURING CAN NOT OCCUR. WHEN WIRE OR POLYMETRIC BACK-UP SUPPORT MESH IS USED, THE WIRE OR POLYMERIC MESH SHALL EXTEND INTO THE TRENCH A MINIMUM OF 3".

THE FENCE POSTS SHALL BE PLACED OR DRIVEN A MIN. OF 18". A MIN. DEPTH OF 12" IS ALLOWED IF TOPSOIL OR OTHER SOFT SUBGRADE SOIL IS NOT PRESENT AND A MIN. DEPTH OF 18" CANNOT BE REACHED. FENCE POST DEPTHS SHALL BE INCREASED 6' IF THE FENCE IS LOCATED ON SLOPES PF 3:1 OR STEEPER AND THE SLOPE IS PERPENDICULAR TO THE FENCE. IF REQUIRED POST DEPTHS CANNOT BE OBTAINED, THE POSTS SHALL BE ADEQUATELY SECURED BY BRACING OR GUYING TO PREVENT OVERTURNING OF THE FENCE DUE TO SEDIMENT LOADING.

SILT FENCES SHALL BE LOCATED ON CONTOUR AS MUCH AS POSSIBLE, EXCEPT AT THE ENDS OF THE FENCE, WHERE THE FENCE SHALL BE TURNED UPHILL SUCH THAT THE SILT FENCE CAPTURES THE RUNOFF WATER AND PREVENTS WATER FROM FLOWING AROUND THE END OF THE FENCE.

IF THE FENCE MUST CROSS CONTOURS, WITH THE EXCEPTION OF THE END OF THE FENCE. GRAVEL CHECK DAMS PLACED PERPENDICULAR TO THE BACK OF THE FENCE SHALL BE USED TO MINIMIZE CONCENTRATED FLOW AND EROSION ALONG THE BACK OF THE FENCE. THE GRAVEL CHECK DAMS SHALL BE APPROXIMATELY 1' DEEP AT THE BACK OF THE FENCE. IT SHALL BE CONTINUED PERPENDICULAR TO THE FENCE AT THE SAME ELEVATION UNTIL THE TOP OF THE CHECK DAM INTERCEPTS THE THE GROUND SURFACE BEHIND THE FENCE. THE GRAVEL CHECK DAMS SHALL CONSIST OF CRUSHED SURFACING TOP COURSE, GRAVEL BACKFILL FOR WALLS, OR SHOULDER BALLAST. THE GRAVEL CHECK DAMS SHALL BE LOCATED EVERY 10' ALONG THE FENCE WHERE THE FENCE MUST CROSS THE CONTOURS. THE SLOPE OF THE FENCE LINE WHERE THE CONTOURS MUST BE CROSSED SHALL NOT BE STEEPER THAN 3:1

WOOD, STEEL OR EQUIVALENT POSTS SHALL BE USED. WOOD POSTS SHALL HAVE MINIMUM DIMENSIONS OF 2"X2"X3' MIN. LENGTH, AND SHALL BE FREE OF DEFECTS SUCH AS KNOTS, SPLITS, OR GOUGES. STEEL POSTS SHALL CONSIST OF EITHER SIZE NO. 6 REBAR OR LARGER, ASTM A 120 STEEL PIPE WITH A MIN. DIAMETER. OR 1-INCH, U, T, L, OR C SHAPE STEEL POSTS WITH A MIN. WEIGHT OF 1.35 LBS./FT. OR OTHER STEEL POSTS HAVING EQUIVALENT STRENGTH AND BENDING RESISTANCE TO THE POST SIZES LISTED. THE SPACING OF THE SUPPORTS POSTS SHALL BE A MAXIMUM OF 6'.

FENCE BACK-UP SUPPORT, IF USED, SHALL CONSIST OF STEEL WIRE WITH A MAX. MESH SPACING OF 2', OR A PREFABRICATED POLYMERIC MESH. THE STRENGTH OF WIRE ON POLYMERIC MESH SHALL BE EQUIVALENT TO OR GREATER THAT 180 LBS. GRAB TENSILE STRENGTH. THE POLYMERIC MESH MUST BE AS RESISTANT TO ULTRAVIOLET. RADIATION AS THE GEOTEXTILE IT SUPPORTS.

SILT FENCE INSTALLATION USING THE SLICING METHOD SPECIFICATION DETAILS FOLLOW.

THE BASE OF BOTH END POSTS MUST BE AT LEAST 2-4"ABOVE THE TOP OF THE SILT FENCE FABRIC ON THE MIDDLE POSTS FOR DITCH CHECKS TO DRAIN PROPERLY. USE A HAND LEVEL OR STRING LEVEL, IF NECESSARY, TO MARK BASE POINTS BEFORE INSTALLATION.

INSTALL POSTS 3-4' APART IN CRITICAL RETENTION AREAS. AND 6-7' APART IN STANDARD APPLICATIONS.

INSTALL POSTS 24" DEEP ON THE DOWNSTREAM SIDE OF THE SILT FENCE, AND AS CLOSE AS POSSIBLE TO THE FABRIC. ENABLING POSTS TO SUPPORT THE FABRIC FROM THE UPSTREAM WATER PRESSURE.

INSTALL POSTS WITH NIPPLES FACING AWAY FROM THE SILT FENCE FABRIC.

ATTACH THE FABRIC TO EACH POST WITH THREE TIES, ALL SPACED WITH THE TOP 8" OF THE FABRIC. ATTACH EACH TIE DIAGONALLY 45 DEGREES THROUGH THE FABRIC, WITH EACH PUNCTURE AT LEAST 1 INCH VERTICALLY APART, IN ADDITION, EACH TIE SHOULD BE POSITIONED TO HANG ON A POST NIPPLE WHEN TIGHTENING TO PREVENT SAGGING.

WRAP APPROXIMATELY 6 INCHES OF FABRIC AROUND THE END POSTS AND SECURE WITH 3 TIES.

NO MORE THEN 24" OF A 36" FABRIC IS ALLOWED ABOVE GROUND LEVEL.

THE ROPE LOCK SYSTEM MUST BE USED IN ALL DITCH CHECK APPLICATIONS.

THE INSTALLATION SHOULD BE CHECKED AND CORRECTED FOR ANY DEVIATION BEFORE COMPACTION. USE A FLAT-BLADED SHOVEL TO TUCK FABRIC DEEPER INTO THE GROUND IF NECESSARY.

COMPACTION IS VITALLY IMPORTANT FOR EFFECTIVE RESULTS. COMPACT THE SOIL IMMEDIATELY NEXT TO THE SILT FENCE WITH THE FRONT WHEEL OF A TRACTOR, SKID STEER, OR ROLLER EXERTING 60 PSI, COMPACT THE UPSTREAM SIDE FIRST AND THEN EACH SIDE TWICE FOR A TOTAL OF FOUR TRIPS

MAINTENANCE STANDARDS:

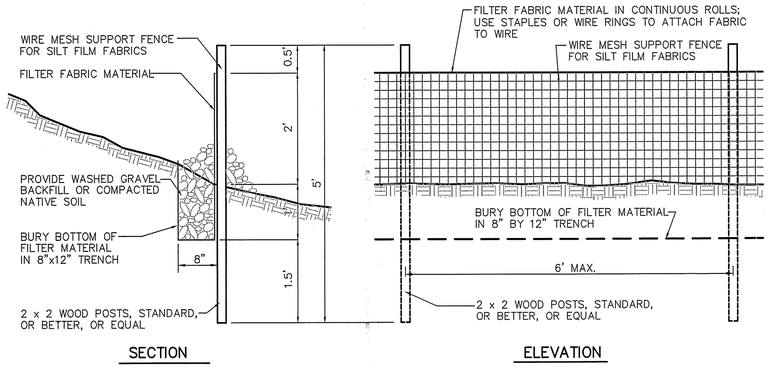
ANY DAMAGE SHALL BE REPAIRED IMMEDIATELY.

IF CONCENTRATED FLOWS ARE EVIDENT UPHILL OF THE FENCE, THEY MUST BE INTERCEPTED AND CONVEYED TO A SEDIMENT POND.

IT IS IMPORTANT TO CHECK THE UPHILL SIDE OF THE FENCE FOR SIGNS OF THE FENCE CLOGGING AND ACTING AS A BARRIER TO FLOW AND THEN CAUSING CHANNELIZATION OF THE FLOWS PARALLEL TO THE FENCE, IF THIS OCCURS, REPLACE THE FENCE OR REMOVE THE TRAPPED SEDIMENT.

SEDIMENT DEPOSITS SHALL EITHER BE REMOVED WHEN THE DEPOSIT REACHES APPROXIMATELY ONE-THIRD THE HEIGHT OF THE SILT FENCE, OR A SECOND SILT FENCE INSTALLED.

IF THE FILTER FABRIC OR GEOTEXTILE HAS DETERIORATED DUE TO ULTRAVIOLET BREAKDOWN, IT SHALL BE REPLACED.



SILT FENCE DETAIL 1

NOT TO SCALE

BMP C105: STABILIZED CONSTRUCTION ENTRANCE

INFORMATION TAKEN FROM CHAPTER 7 OF THE EASTERN WASHINGTON STORMWATER MANAGEMENT MANUAL 2004 EDITION

PURPOSE:

CONSTRUCTION ENTRANCES ARE STABILIZED TO REDUCE THE AMOUNT OF SEDIMENT TRANSPORTED ONTO PAVED ROADS BY VEHICLES OR EQUIPMENT BY CONSTRUCTING A STABILIZED PAD OF QUARRY SPALLS AT ENTRANCES TO CONSTRUCTION SITES.

CONDITIONS OF USE:

CONSTRUCTION ENTRANCES SHALL BE STABILIZED WHEREVER TRAFFIC WILL BE LEAVING A CONSTRUCTION SITE AND TRAVELING ON PAVED ROADS OR OTHER PAVED AREAS WITHIN 1,000 FEET OF THE SITE.

ON LARGE COMMERCIAL, HIGHWAY, AND ROAD PROJECTS, THE DESIGNER AND OR CONTRACTOR SHOULD INCLUDE ENOUGH MATERIALS IN THE CONTRACT TO ALLOW FOR ADDITIONAL STABILIZED ENTRANCES NOT SHOWN IN THE INITIAL CONSTRUCTION SWPPP. IT IS DIFFICULT TO DETERMINE EXACTLY WHERE ACCESS TO THESE PROJECTS WILL TAKE PLACE; ADDITIONAL MATERIALS WILL ENABLE THE CONTRACTOR TO INSTALL THEM WHERE NEEDED.

DESIGN AND INSTALLATION:

SEE FIGURE 7.3.2 OF THE EASTERN WATER STORMWATER MANAGEMENT MANUAL OR DETAIL BELOW.

THE SURFACE MATERIAL SHALL BE 4"-8" QUARRY SPALLS. SMALLER CRUSHED ROCK SUCH AS BASE COURSE MAY BE APPROPRIATE IN SOME SITUATIONS BUT, SINCE IT IS MORE LIKELY TO BE TRACKED OFF-SITE, MUST BE APPROVED BY THE LOCAL JURISDICTION.

A SEPARATION GEOTEXTILE SHALL BE PLACED UNDER THE SPALLS TO PREVENT FINE SEDIMENT FROM PUMPING UP INTO THE ROCK PAD. THE GEOTEXTILE SHALL MEET THE FOLLOWING STANDARDS:

GRAB TENSILE STRENGTH (ASTM D4751)	200 PSI MIN.
GRAB TENSILE ELONGATION (ASTM D4632)	30% MAX.
MULLEN BURST STRENGTH (ASTM D3786-80A)	400 PSI MIN.
AOS (ASTM D4751)	20-45 (U.S. STANDARD SIEVE SIZE)

IF SITE CONDITIONS DO NOT WARRANT THE USE OF GEOTEXTILE, IT IS NOT REQUIRED.

MAINTENANCE STANDARDS:

IF QUARRY SPALLS (OR HOG FUEL) SHALL BE ADDED IF THE PAD IS NO LONGER IN ACCORDANCE WITH THE SPECIFICATIONS.

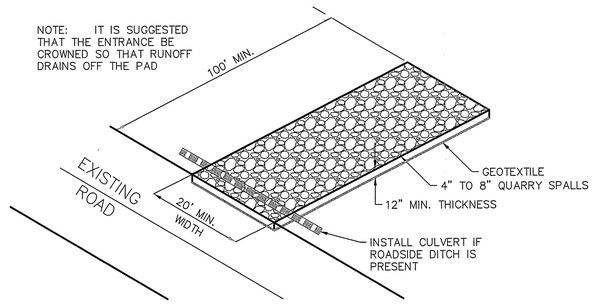
IF THE ENTRANCE IS NOT PREVENTING SEDIMENT FROM BEING TRACKED ONTO PAVEMENT, THEN ALTERNATIVE MEASURES TO KEEP THE STREETS FREE OF SEDIMENT SHALL BE USED. THIS MAY INCLUDE STREET SWEEPING, AN INCREASE IN THE DIMENSIONS OF THE ENTRANCE, OR THE INSTALLATION OF A WHEEL WASH.

ANY SEDIMENT THAT IS TRACKED ONTO PAVEMENT SHALL BE REMOVED BY SHOVELING OR STREET SWEEPING. THE SEDIMENT COLLECTED BY SWEEPING SHALL BE REMOVED OR STABILIZED ON SITE. THE PAVEMENT SHALL NOT BE CLEANED BY WASHING DOWN THE STREET, EXCEPT WHEN SWEEPING IS INEFFECTIVE AND THERE IS A THREAT TO PUBLIC SAFETY. IF IT IS NECESSARY TO WASH THE STREETS. THE CONSTRUCTION OF A SMALL SUMP SHALL BE CONSIDERED. THE SEDIMENT WOULD THEN BE WASHED INTO THE SUMP WHERE IT CAN BE CONTROLLED.

ANY QUARRY SPALLS THAT ARE LOOSENED FROM THE PAD, WHICH END UP ON THE ROADWAY SHALL BE REMOVED IMMEDIATELY.

IF VEHICLES ARE ENTERING OR EXITING THE SITE AT POINTS OTHER THAN THE CONSTRUCTION ENTERANCE(S), FENCING (SEE BMPS C103 AND C104) SHALL BE INSTALLED TO CONTROL TRAFFIC.

UPON PROJECT COMPLETION AND SITE STABILIZATION, ALL CONSTRUCTION ACCESSES INTENDED AS PERMANENT ACCESS FOR MAINTENANCE SHALL BE PERMANENTLY STABILIZED.



ROCK CONSTRUCTION ENTRY 2

NOT TO SCALE

CITY OF SPOKANE DEVELOPMENT SERVICE CENTER DEPARTMENT

-CONSTRUCTION PLANS-

April 1, 2021

DATE PLANS ACCEPTED:_____

AS-BUILD OF THIS PLAN AND CONSTRUCTION INFORMATION ARE REQUIRED PRIOR TO CITY ACCEPTANCE OF IMPROVEMENTS OR PROJECT COMPLETION.

*NOTE: PLAN ACCEPTANCE ONLY FOR COMFORMANCE WITH CITY STANDARDS. PLAN DESIGN AND ACCURACY IS THE RESPONSIBILITY OF THE STAMPING ENGINEER.

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TODD R. WHIPPLE — STATE OF WASHINGTON — 25462 — REGISTERED PROFESSIONAL ENGINEER — 4/2/21

S-7
7 OF 13

DATE	BY	PROJ	DESCRIPTION
4/01/21	JMH	C	FINAL PLAN SUBMITTAL FOR APPROVAL
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NAVD88 ELEV. 2297.37

CBM NO. 29S-42E

NAVD88 DATUM

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HORIZONTAL PLAN&PROFILE N/A

VERTICAL PROFILE ONLY N/A

SCALE

CURRENT CITY/COUNTY DESIGN STANDARDS ADOPTED FEB,2007

	BY	DATES
DRAWN:	JMH	09/28/20
REVISED:	JMH	2/08/21
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APPROVED:	TRW	4/01/21

CITY OF SPOKANE, WASHINGTON
DEPARTMENT OF ENGINEERING SERVICES
808 WEST SPOKANE FALLS BLVD.
SPOKANE, WASHINGTON 99201-3343
(509) 625-6300

PROJECT NAME: 21ST & CUBA DEVELPOMENT

SEGMENT LIMITS: SWPPP BMP NOTES & DETAILS

PROJECT LIMITS: CUBA ST TO HAVANA ST

TYPE OF IMPROVEMENT: EROSION CONTROL

CITY PROJECT NUMBER: 2020612

CITY PLAN NUMBER: NOTES & DETAILS 27-25-43

EFN: WCE 20-2725

REGION NO.	STATE	FEDERAL AID PROJECT NO.	SHEET NO.
EASTERN	WASH.		

UNDERGROUND SERVICE ALERT
ONE-CALL NUMBER
811
CALL TWO BUSINESS DAYS BEFORE YOU DIG

BMP C220: STORM DRAIN INLET PROTECTION

INFORMATION TAKEN FROM CHAPTER 7 OF THE EASTERN WASHINGTON STORMWATER MANAGEMENT MANUAL 2004 EDITION

PURPOSE:

TO PREVENT COARSE SEDIMENT FROM ENTERING DRAINAGE SYSTEMS PRIOR TO PERMANENT STABILIZATION OF THE DISTURBED AREA

CONDITIONS OF USE:

WHERE STORM DRAIN INLETS ARE TO BE MADE OPERATIONAL BEFORE PERMANENT STABILIZATION OF THE DISTURBED DRAINAGE AREA. PROTECTION SHOULD BE PROVIDED FOR ALL STORM DRAIN INLETS DOWNSLOPE AND WITHIN 500 FEET OF A DISTURBED OR CONSTRUCTION AREA, UNLESS THE RUNOFF THAT ENTERS THE CATCH BASIN WILL BE CONVEYED TO A SEDIMENT POND OR TRAP. INLET PROTECTION MAY BE USED ANYWHERE TO PROTECT THE DRAINAGE SYSTEM. IT IS LIKELY THAT THE DRAINAGE SYSTEM WILL REQUIRE CLEANING.

TABLE 7.3.9 (IN THE EASTERN WASHINGTON STORMWATER MANAGEMENT MANUAL) LISTS SEVERAL OPTIONS FOR INLET PROTECTION. ALL OF THE METHODS FOR STORM DRAIN INLET PROTECTION ARE PRONE TO PLUGGING AND REQUIRE A HIGH FREQUENCY OF MAINTENANCE. DRAINAGE AREAS SHOULD BE LIMITED TO 1 ACRE OR LESS. EMERGENCY OVERFLOWS MAY BE REQUIRED WHERE STORMWATER PONDING WOULD CAUSE A HAZARD. IF AN EMERGENCY OVERFLOW IS PROVIDED, ADDITIONAL END-OF-PIPE TREATMENT MAY BE REQUIRED.

DESIGN AND INSTALLATION:

EXCAVATED DROP INLET PROTECTION – AN EXCAVATED IMPOUNDMENT AROUND THE STORM DRAIN. SEDIMENT SETTLES OUT OF THE STORMWATER PRIOR TO ENTERING THE STORM DRAIN.

- DEPTH 1–2 FT AS MEASURED FROM THE CREST OF THE INLET STRUCTURE.
- SIDE SLOPES OF EXCAVATION NO STEEPER THAT 2:1
- MINIMUM VOLUME OF EXCAVATION 35 CUBIC YARDS
- SHAPE THE BASIN TO FIT THE SITE WITH THE LONGEST DIMENSION ORIENTED TOWARD THE LONGEST INFLOW AREA.
- INSTALL PROVISIONS FOR DRAINING TO PREVENT STANDING WATER PROBLEMS.
- CLEAR THE AREA OF ALL DEBRIS.
- GRADE THE APPROACH TO THE INLET UNIFORMLY.
- DRILL WEEP HOLES INTO THE SIDES OF THE INLET.
- PROTECT WEEP HOLES WITH SCREEN WIRE AND WASHED AGGREGATE.
- SEAL WEEP HOLES WHEN REMOVING STRUCTURE AND STABILIZING AREA.
- IT MAY BE NECESSARY TO BUILD A TEMPORARY DIKE TO THE DOWN SLOPE STRUCTURE TO PREVENT BYPASS FLOW.

BLOCK AND GRAVEL FILTER – A BARRIER FORMED AROUND THE STORM DRAIN INLET WITH STANDARD CONCRETE BLOCKS AND GRAVEL. SEE FIGURE 4.15 IN THE EASTERN WASHINGTON STORMWATER MANAGEMENT MANUAL.

- HEIGHT 1–2 FT ABOVE THE INLET.
- RECESS THE FIRST ROW 2" INTO THE GROUND FOR STABILITY.
- SUPPORT SUBSEQUENT COURSES BY PLACING A 2X4 THROUGH THE BLOCK OPENING.
- DO NOT USE MORTAR.
- LAY SOME BLOCKS IN THE BOTTOM ROW ON THEIR SIDE FOR DEWATERING THE POOL.
- PLACE HARDWARE CLOTH OR COMPARABLE WIRE MESH WITH 1/2" OPENINGS OVER ALL BLOCK OPENINGS.
- PLACE GRAVEL JUST BELOW THE TOP OF BLOCKS ON SLOPES 2:1 OR FLATTER.
- AN ALTERNATIVE DESIGN IN A GRAVEL DONUT.
- INLET SLOPE OF 3:1.
- OUTLET SLOPE OF 2:1.
- 1–FOOT WIDE LEVEL STONE AREA BETWEEN THE STRUCTURE AND THE INLET.
- INLET SLOPES STONES 3" IN DIAMETER OR LARGER.
- OUTLET SLOPE USE GRAVEL 1/2" TO 3/4" AT A MINIMUM THICKNESS OF 1 FOOT.

GRAVEL AND WIRE MESH INLET – A GRAVEL BARRIER PLACED OVER TOP OF THE INLET. THIS STRUCTURE DOES NOT PROVIDE AND OVERFLOW

- HARDWARE CLOTH OR COMPARABLE WIRE MESH WITH 1/2" OPENINGS.
- COARSE AGGREGATE.
- HEIGHT 1–FOOT OR MORE, 18" WIDER THAN INLET ON ALL SIDES.
- PLACE WIRE MESS OVER THE DROP INLET SO THAT THE WIRE EXTENDS A MINIMUM OF 1–FOOT BEYOND EACH SIDE OF THE INLET STRUCTURE,
- IF MORE THAN ONE STRIP OF MESH IN NECESSARY, OVERLAP THE STRIPS.
- PLACE COARSE AGGREGATE OVER THE WIRE MESH.
- THE DEPTH OF THE GRAVEL SHOULD BE AT LEAST 12" OVER THE ENTIRE INLET OPENING AND EXTEND AT LEAST 18" ON ALL SIDES.

DESIGN AND INSTALLATION: CONTINUED

CATCH BASIN FILTERS – INSERTS SHOULD BE DESIGNED BY THE MANUFACTURER FOR USE AT CONSTRUCTION SITES. THE LIMITED SEDIMENT STORAGE CAPACITY INCREASES THE AMOUNT OF INSPECTION AND MAINTENANCE REQUIRED, WHICH MAY BE DAILY FOR HEAVY SEDIMENT LOADS, THE MAINTENANCE REQUIREMENTS CAB BE REDUCED BY COMBINING A CATCH BASIN FILTER WITH ANOTHER TYPE OF INLET PROTECTION. THIS TYPE OF INLET PROTECTION PROVIDES FLOW BYPASS WITHOUT OVERFLOW AND THEREFORE MAY BE A BETTER METHOD FOR INLETS LOCATED ALONG ACTIVE RIGHTS–OF–WAY.

- 5 CUBIC FEET OF STORAGE
- DEWATERING PROVISIONS
- HIGH–FLOW BYPASS THAT WILL NOT CLOG UNDER NORMAL USE AT A CONSTRUCTION SITE.
- THE CATCH BASIN FILTER IS INSERTED IN THE CATCH BASIN JUST BELOW THE GRATING.

CURB INLET PROTECTION WITH WOODED WEIR – BARRIER FORMED AROUND CURB INLET WITH A WOODEN FRAME AND GRAVEL.

- WIRE MESH WITH 1/2" OPENINGS.
- EXTRA STRENGTH FILTER FABRIC TO THE FRAME.
- PILE COARSE WASHED AGGREGATE AGAINST THE WIRE/FABRIC.
- PLACE WEIGHT ON FRAME ANCHORS.

BLOCK AND GRAVEL CURB INLET PROTECTION – BARRIER FORMED AROUND AN INLET WITH CONCRETE BLOCKS AND GRAVEL. SEE FIGURE 7.3.16 OF THE EASTERN WASHINGTON STORMWATER MANAGEMENT MANUAL.

- WIRE MESH WITH 1/2" OPENINGS.
- PLACE 2 CONCRETE BLOCKS ON THEIR SIDES ABUTTING THE CURB AT EITHER SIDE OF THE INLET OPENING. THESE ARE SPACER BLOCKS.
- PLACE A 2X4 STUD THROUGH THE OUT HOLES OF EACH SPACER BLOCK TO ALIGN THE FRONT BLOCKS.
- PLACE BLOCKS ON THEIR SIDES ACROSS THE FRONT OF THE INLET AND ABUTTING THE SPACER BLOCKS.
- PLACE WIRE MESH OVER THE OUTSIDE VERTICAL FACE.
- PILE COARSE AGGREGATE AGAINST THE WIRE TO THE TOP OF THE BARRIER.

CURB AND GUTTER SEDIMENT BARRIER – SANDBAG OR ROCK BERM (RIPRAP AND AGGREGATE) 3 FEET HIGH AND 3 FEET WIDE IN A HORSESHOE SHAPE. SEE FIGURE 7.3.17 OF THE EASTERN WASHINGTON STORMWATER MANAGEMENT MANUAL.

- CONSTRUCT HORSESHOE SHAPED BERM, FACED WITH COARSE AGGREGATE IF USING RIPRAP, 3 FEET HIGH AND 3 FEET WIDE, AT LEAST 2 FEET FROM THE INLET.
- CONSTRUCT A HORSESHOE SHAPED SEDIMENTATION TRAP ON THE OUTSIDE OF THE BERM SIZED TO SEDIMENT TRAP STANDARDS FOR PROTECTING A CULVERT INLET.

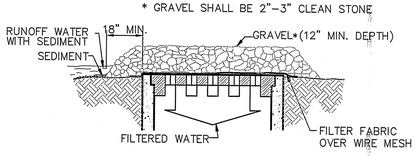
MAINTENANCE STANDARDS:

CATCH BASIN FILTERS SHOULD BE INSPECTED FREQUENTLY, ESPECIALLY AFTER STORM EVENTS. IF THE INSERT BECOMES CLOGGED, IT SHOULD BE CLEANED OR REPLACED.

FOR SYSTEMS USING STONE FILTERS: IF THE STONE FILTER BECOME CLOGGED WITH SEDIMENT, THE STONES MUST BE PULLED AWAY FROM THE INLET AND CLEANED OR REPLACED. SINCE CLEANING OF GRAVEL AT A CONSTRUCTION SITE MAY BE DIFFICULT, AN ALTERNATIVE APPROACH WOULD BE USED TO USE THE CLOGGED STONES FILL AND PUT FRESH STONE AROUND THE INLET.

DO NOT WASH SEDIMENT INTO STORM DRAINS WHILE CLEANING. SPREAD ALL EXCAVATED MATERIAL EVENLY OVER THE SURROUNDING LAND AREA OR STOCKPILE AND STABILIZE AS APPROPRIATE.

* GRAVEL SHALL BE 2"–3" CLEAN STONE



SPECIFIC APPLICATION

THIS METHOD OF INLET PROTECTION IS APPLICABLE WHERE HEAVY CONCENTRATED FLOWS ARE EXPECTED, BUT NOT WHERE PONDING AROUND THE STRUCTURE MIGHT CAUSE EXCESSIVE INCONVENIENCE OR DAMAGE TO ADJACENT STRUCTURES AND UNPROTECTED ACRES.

GRAVEL AND WIRE MESH INLET SEDIMENT FILTER

NOT TO SCALE

3

BMP C151: CONCRETE HANDLING

INFORMATION TAKEN FROM CHAPTER 7 OF THE EASTERN WASHINGTON STORMWATER MANAGEMENT MANUAL 2004 EDITION

PURPOSE:

CONCRETE WORK CAN GENERATE PROCESS WATER AND SLURRY THAT CONTAIN FINE PARTICLES AND HIGH PH, BOTH OF WHICH CAN VIOLATE WATER QUALITY STANDARDS IN THE RECEIVING WATER. THIS BMP IS INTENDED TO MINIMIZE AND ELIMINATE CONCRETE PROCESS WATER AND SLURRY FROM ENTERING WATERS OF THE STATE.

CONDITIONS OF USE:

ANY TIME CONCRETE IS USED, THESE MANAGEMENT PRACTICES SHALL BE UTILIZED. CONCRETE CONSTRUCTION PROJECTS INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING:

- CURBS
- SIDEWALKS
- ROADS
- BRIDGES
- FOUNDATIONS
- FLOORS
- RUNWAYS

DESIGN AND INSTALLATION:

CONCRETE TRUCK CHUTES, PUMPS, AND INTERNALS SHALL BE WASHED OUT ONLY INTO FORMED AREAS AWAITING INSTALLATION OF CONCRETE OR ASPHALT.

UNUSED CONCRETE REMAINING IN THE TRUCK AND PUMP SHALL BE RETURNED TO THE ORIGINATING BATCH PLANT FOR RECYCLING.

HAND TOOLS INCLUDING, BUT NOT LIMITED TO, SCREEDS, SHOVELS, RAKES, FLOATS, AND TROWELS SHALL BE WASHED OFF ONLY INTO FORMED AREAS AWAITING INSTALLATION OF CONCRETE OR ASPHALT.

EQUIPMENT THAT CANNOT BE EASILY MOVED, SUCH AS CONCRETE PAVERS, SHALL ONLY BE WASHED IN AREAS THAT DO NOT DIRECTLY DRAIN TO NATURAL OR CONSTRUCTED STORMWATER CONVEYANCES.

WASHDOWN FROM AREAS SUCH AS CONCRETE AGGREGATE DRIVEWAYS SHALL NOT DRAIN DIRECTLY TO NATURAL OR CONSTRUCTED STORMWATER CONVEYANCES.

WHEN NO FORMED AREAS ARE AVAILABLE, WASHWATER AND LEFTOVER PRODUCT SHALL BE CONTAINED IN A LINED CONTAINER. CONTAINED CONCRETE SHALL BE DISPOSED OF IN A MANNER THAT DOES NOT VIOLATE GROUNDWATER OR SURFACE WATER QUALITY STANDARDS.

MAINTENANCE STANDARDS:

CONTAINERS SHALL BE CHECKED FOR HOLES IN THE LINER DAILY DURING CONCRETE POURS AND REPAIRED THE SAME DAY.

CITY OF SPOKANE DEVELOPMENT SERVICE CENTER DEPARTMENT

-CONSTRUCTION PLANS-
April 1, 2021

DATE PLANS ACCEPTED:_____

AS-BUILT OF THIS PLAN AND CONSTRUCTION INFORMATION ARE REQUIRED PRIOR TO CITY ACCEPTANCE OF IMPROVEMENTS OR PROJECT COMPLETION.

*NOTE: PLAN ACCEPTANCE ONLY FOR COMFORMANCE WITH CITY STANDARDS. PLAN DESIGN AND ACCURACY IS THE RESPONSIBILITY OF THE STAMPING ENGINEER.

BMP C140: DUST CONTROL

INFORMATION TAKEN FROM CHAPTER 7 OF THE EASTERN WASHINGTON STORMWATER MANAGEMENT MANUAL 2004 EDITION

PURPOSE:

DUST CONTROL PREVENTS WIND TRANSPORT OF DUST FROM DISTURBED SOIL SURFACES ONTO ROADWAYS, DRAINAGE WAYS, AND SURFACE WATERS. WIND EROSION IS A SIGNIFICANT CAUSE OF SOIL MOVEMENT FROM CONSTRUCTION SITES IN EASTERN WASHINGTON. ALTHOUGH WIND EROSION CAN CONTRIBUTE TO WATER QUALITY IMPACTS, DUST CONTROL IS REGULATED IN SOME AREAS OF EASTERN WASHINGTON PRIMARILY THROUGH LOCAL AIR QUALITY AUTHORITIES. WHERE SUCH AN ENTITY EXISTS, CONTACT THE LOCAL AIR QUALITY AUTHORITY FOR APPROPRIATE AND REQUIRED BMPS FOR DUST CONTROL TO IMPLEMENT AT YOUR PROJECT SITE.

CONDITIONS OF USE:

IN AREAS (INCLUDING ROADWAYS) SUBJECT TO SURFACE AND AIR MOVEMENT OF DUST WHERE ON–SITE AND OFF–SITE IMPACTS TO ROADWAYS, DRAINAGE WAYS, OR SURFACE WATERS ARE LIKELY.

DESIGN AND INSTALLATION:

CONTACT YOUR LOCAL AIR POLLUTION CONTROL AUTHORITY FOR GUIDANCE AND TRAINING ON OTHER DUST CONTROL MEASURES. COMPLIANCE WITH THE LOCAL AIR POLLUTION CONTROL AUTHORITY CONSTITUTES COMPLIANCE WITH THIS BMP.

WATER APPLIED TO CONSTRUCTION SITES FOR DUST CONTROL MUST NOT LEAVE THE SITE AS SURFACE RUNOFF.

SEE ALSO "TECHNIQUES FOR DUST PREVENTION AND SUPPRESSION," ECOLOGY PUBLICATION NUMBER 96–433, REVISED APRIL 2002.

TECHNIQUES THAT CAN BE USED FOR CONSTRUCTION PROJECTS INCLUDE:

VEGETATE OR MULCH AREAS THAT WILL NOT RECEIVE VEHICLE TRAFFIC. IN AREAS WHERE PLANTING, MULCHING, OR PAVING IS IMPRACTICAL, APPLY GRAVEL OR LANDSCAPING ROCK.

LIMIT DUST GENERATION BY CLEARING ONLY THOSE AREAS WHERE IMMEDIATE ACTIVITY WILL TAKE PLACE, LEAVING THE REMAINDER AREA(S) IN THE ORIGINAL CONDITION, IF STABLE. MAINTAIN THE ORIGINAL GROUND COVER AS LONG AS PRACTICAL.

CONSTRUCT NATURAL OR ARTIFICIAL WINDBREAKS OR WINDSCREENS. THESE MAY BE DESIGNED AS ENCLOSURES FOR SMALL DUST SOURCES.

SPRINKLE THE SITE WITH WATER UNTIL THE SURFACE IS WET. REPEAT AS NEEDED. TO PREVENT CARRYOUT OF MUD ONTO STREET, REFER TO STABILIZED CONSTRUCTION ENTRANCE (BMP C105).

IRRIGATION WATER CAN BE USED FOR DUST CONTROL. IRRIGATION SYSTEMS SHOULD BE INSTALLED AS A FIRST STEP ON SITES WHERE DUST CONTROL IS A CONCERN.

SPRAY EXPOSED SOIL AREAS WITH A DUST PALLIATIVE, FOLLOWING THE MANUFACTURER'S INSTRUCTIONS AND CAUTIONS REGARDING HANDLING AND APPLICATION. USED OIL IS PROHIBITED FROM USE AS A DUST SUPPRESSANT. LOCAL GOVERNMENTS MAY APPROVE OTHER DUST PALLIATIVES SUCH AS CALCIUM CHLORIDE OR PAM.

PAM (BMPC126) ADDED TO WATER AT A RATE OF 0.5LBS PER 1,000 GALLONS OF WATER PER ACRE AND APPLIED FROM A WATER TRUCK IS MORE EFFECTIVE THAT WATER ALONE. THE IS DUE TO THE INCREASED INFILTRATION OF WATER INTO THE SOIL AND REDUCED EVAPORATION. IN ADDITION, SMALL SOIL PARTICLES ARE BONDED TOGETHER AND ARE NOT AS EASILY TRANSPORTED BY WIND. ADDING PAM MAY ACTUALLY REDUCE THE QUANTITY OF WATER NEEDED FOR DUST CONTROL, ESPECIALLY IN EASTERN WASHINGTON. SINCE THE WHOLESALE COST OF PAM IS ABOUT $4.00 PER POUND, THIS IS AN EXTREMELY COST–EFFECTIVE DUST CONTROL METHOD.

TECHNIQUES THAT CAN BE USED FOR UNPAVED ROADS AND LOTS INCLUDE:

- LOWER SPEED LIMITS. HIGH VEHICLE SPEEDS INCREASES THE AMOUNT OF DUST STIRRED UP FROM UNPAVED ROADS AND LOTS.
- UPGRADE ROAD SURFACE STRENGTH BY IMPROVING PARTICLE SIZE, SHAPE, AND MINERAL TYPES THAT MAKE UP THE SURFACE AND BASE MATERIALS.
- ADD SURFACE GRAVEL TO REDUCE THE SOURCE OF DUST EMISSION. LIMIT THE AMOUNT OF FINE PARTICLES (THOSE SMALLER THAN .075 MILLIMETERS) 10 TO 20 PERCENT.
- USE GEOTEXTILE FABRIC TO INCREASE THE STRENGTH OF NEW ROADS OR ROADS UNDERGOING RECONSTRUCTION.
- ENCOURAGE THE USE OF ALTERNATE, PAVED ROUTES, IF AVAILABLE.
- RESTRICT USE BY TRACKED VEHICLES AND HEAVY TRUCKS TO PREVENT DAMAGE TO ROAD SURFACE AND BASE.
- APPLY CHEMICAL DUST SUPPRESSANTS USING THE ADMIX METHOD, BLENDING THE PRODUCT WITH THE TOP FEW INCHES OF MATERIAL. SUPPRESSANTS MAY ALSO BE APPLIED AS SURFACE TREATMENTS.
- PAVE UNPAVED PERMANENT ROADS AND OTHER TRAFFICKED AREAS.
- USE VACUUM STREET SWEEPERS.
- REMOVED MUD AND OTHER DIRT PROMPTLY SO IT DOES NOT DRY AND THEN TURN INTO DUST.
- LIMIT DUST–CAUSEING WORK ON WINDY DAYS.

MAINTENANCE STANDARDS:

REPAY AREA AS NECESSARY TO KEEP DUST TO A MINIMUM. WATER APPLIED TO CONSTRUCTION SITES FOR DUST CONTROL MUST NOT LEAVE THE SITE AS SURFACE RUNOFF.

WCE
WHIPPLE CONSULTING ENGINEERS
21 S. PINES RD.
SPOKANE VALLEY, WA 99206
PH: 509-893-2617 FAX: 509-926-0227

TODD R. WHIPPLE — STATE OF WASHINGTON — 25462 — REGISTERED PROFESSIONAL ENGINEER — 4-7-21

S-8
8 OF 13

DATE	BY	PROJ.	DESCRIPTION
4/01/21	JMH	C	FINAL PLAN SUBMITTAL FOR APPROVAL
2/10/21	JMH	B	REVISIONS TO PLANS PER C.O.S. COMMENTS
11/10/20	JMH	A	REVISIONS TO PLANS PER C.O.S. COMMENTS
10/08/20	JMH	–	ORIGINAL SUBMITTAL

REVISIONS

DATE	BY	PROJ.	E.F.N. , U.S.N.	FROM	TO

AS BUILT

COUNCIL ACCEPT DATE	FROM	TO	ORD. NO.	DATE	FILE NO.

GRADE ORDINANCE LIST

NAVD88 = (OLD CBM ELEV.) – (13.13) | AS OF JANUARY, 2000 USE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)

BENCH MARK LOCATION
INTERSECTION OF 29TH AVE & HAVANA ST

NAVD88 ELEV. 2297.37
CBM NO. 29S-42E

NAVD88 DATUM

BAR IS ONE INCH ON ORIGINAL DRAWING. IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

HORIZONTAL PLAN&PROFILE N/A
VERTICAL PROFILE ONLY N/A

SCALE

CURRENT CITY/COUNTY DESIGN STANDARDS ADOPTED FEB,2007

	BY	DATES
DRAWN:	JMH	09/28/20
REVISED:	JMH	2/08/21
CHECKED:	TRW	2/10/21
APPROVED:	TRW	4/01/21

THE CITY OF SPOKANE

CITY OF SPOKANE, WASHINGTON
DEPARTMENT OF ENGINEERING SERVICES
808 WEST SPOKANE FALLS BLVD.
SPOKANE, WASHINGTON 99201–3343
(509) 625–6300

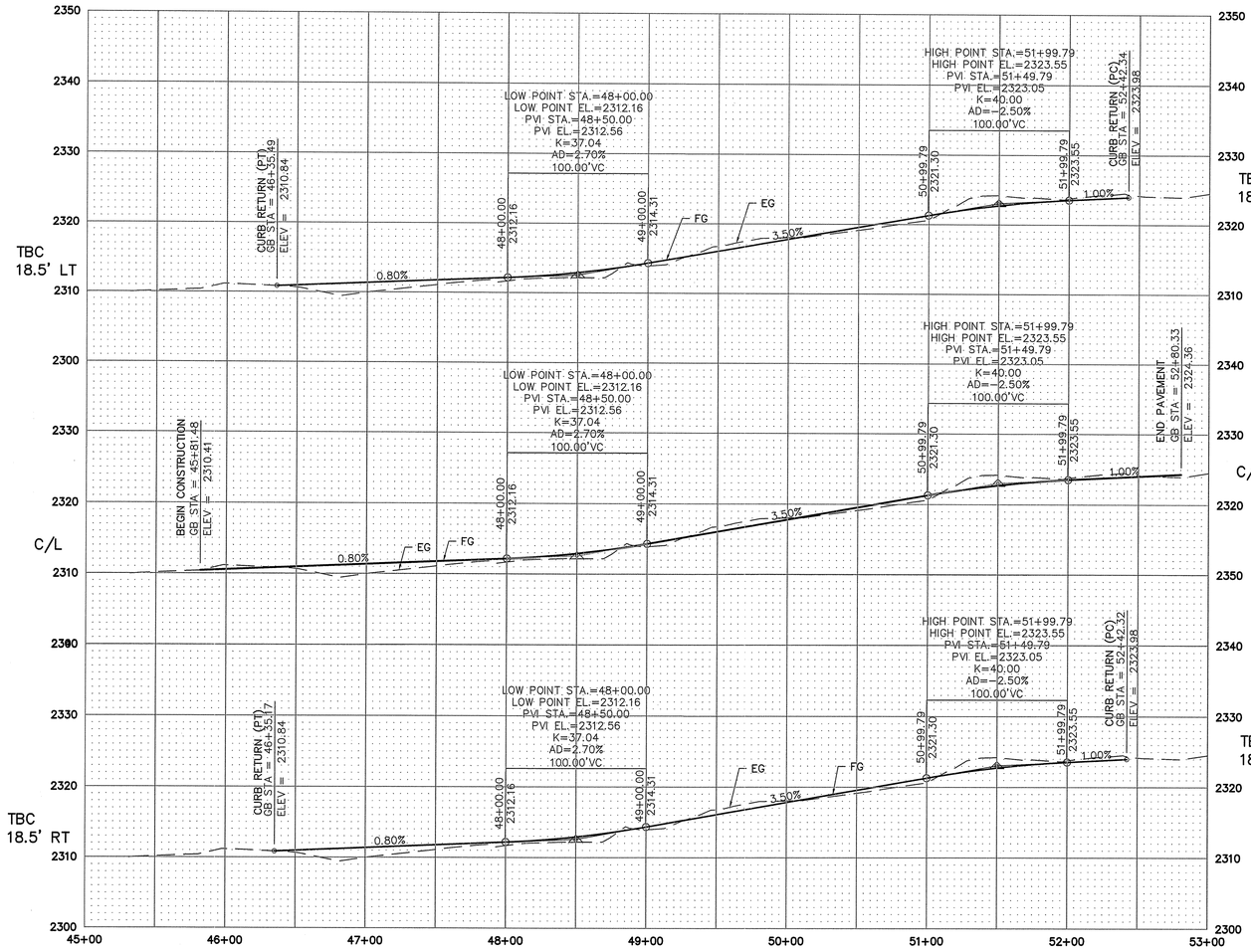
PROJECT NAME: 21ST & CUBA DEVELPOMENT

SEGMENT LIMITS: SWPPP BMP NOTES & DETAILS CONT.

PROJECT LIMITS: CUBA ST TO HAVANA ST

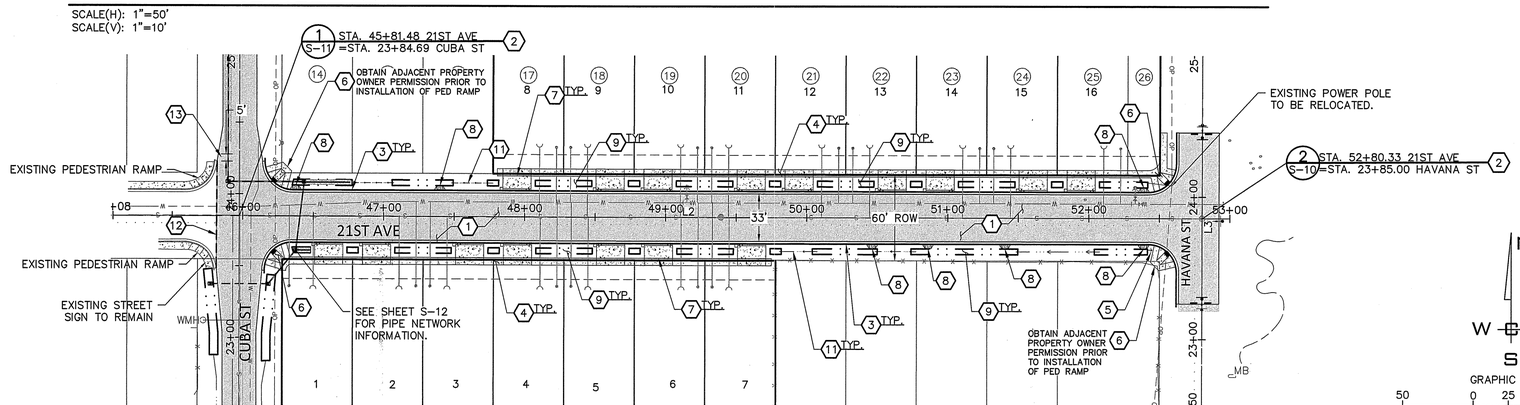
TYPE OF IMPROVEMENT: EROSION CONTROL
CITY PROJECT NUMBER: 2020612
CITY PLAN NUMBER: NOTES & DETAILS 27–25–43
EFN: WCE 20–2725

REGION NO.	STATE	FEDERAL AID PROJECT NO.	SHEET NO.
EASTERN	WASH.		



21ST AVE PROFILE VIEW

SCALE(H): 1"=50'
SCALE(V): 1"=10'



21ST AVE PLAN VIEW

SCALE: 1"=50'

CONSTRUCTION NOTES

1. CONSTRUCT ROADWAY PER TYPICAL SECTION DETAILS, SHEET S-3.
2. PROVIDE AND INSTALL CENTERLINE MONUMENT PER CITY OF SPOKANE STANDARD PLANS H-101 AND H-105.
3. PROVIDE AND INSTALL CURB AND GUTTER PER CITY OF SPOKANE STANDARD PLAN F-106.
4. PROVIDE AND INSTALL 5' SIDEWALK PER CITY OF SPOKANE STANDARD PLAN F-102B.
5. PROVIDE AND INSTALL STREET NAME SIGN PER CITY OF SPOKANE STANDARDS AND SPECIFICATIONS.
6. PROVIDE AND INSTALL TYPE 1 PEDESTRIAN ACCESS RAMP PER CITY OF SPOKANE STANDARD PLAN F-105.
7. PROVIDE AND INSTALL 20' DRIVEWAY WITH INTEGRATED SWALE INLET PER CITY OF SPOKANE STANDARD PLAN F-104B.
8. PROVIDE AND INSTALL CURB DROP INLET PER CITY OF SPOKANE STANDARD PLAN F-109. SEE INLET LOCATION TABLE THIS SHEET FOR LOCATION ALONG CURB.
9. CONSTRUCT ROADSIDE SWALE PER CITY OF SPOKANE STANDARDS AND SPECIFICATIONS AND PER 12ST AVE SWALE CROSS SECTION, DETAIL A, THIS SHEET.
10. RESERVED.
11. CONSTRUCT DRAINAGE DITCH PER DETAIL B, SHEET S-12 AND PER CITY OF SPOKANE STANDARDS AND SPECIFICATIONS.
12. SAWCUT AND PATCH PAVEMENT PER INLAND NORTHWEST PAVEMENT CUT POLICY.
13. PROVIDE AND INSTALL 8" CSTC GRAVEL. MATCH TO EXISTING GRADE.

Line Table (℄)		
Line #	Length	Direction
L1	386.31	N0° 03' 32"E
L2	687.34	S89° 53' 11"E
L3	120.00	N0° 07' 42"E

INLET LOCATION TABLE		
ALIGNMENT	STATION	RT/LT
21ST AVE	46+38	LT
21ST AVE	47+40	LT
21ST AVE	50+47	RT
21ST AVE	50+86	RT
21ST AVE	51+41	RT
21ST AVE	52+38	RT
21ST AVE	52+38	LT

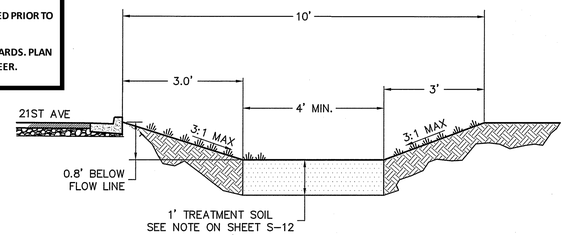
CENTERLINE DRIVEWAY LOCATION TABLE			
LOT	ALIGNMENT	STATION	RT/LT
1	21ST AVE	46+61.00	RT
2	21ST AVE	46+95.00	RT
3	21ST AVE	47+61.00	RT
4	21ST AVE	47+95.00	RT
5	21ST AVE	48+61.00	RT
6	21ST AVE	48+95.00	RT
7	21ST AVE	49+61.00	RT
8	21ST AVE	47+94.50	LT
9	21ST AVE	48+60.50	LT
10	21ST AVE	48+94.50	LT
11	21ST AVE	49+60.50	LT
12	21ST AVE	49+94.50	LT
13	21ST AVE	50+60.50	LT
14	21ST AVE	50+94.49	LT
15	21ST AVE	51+60.50	LT
16	21ST AVE	51+94.50	LT

CITY OF SPOKANE DEVELOPMENT SERVICE CENTER DEPARTMENT

-CONSTRUCTION PLANS-
April 1, 2021
DATE PLANS ACCEPTED:_____

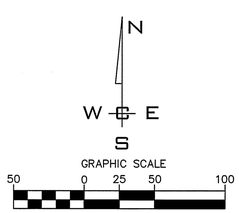
AS-BUILD OF THIS PLAN AND CONSTRUCTION INFORMATION ARE REQUIRED PRIOR TO CITY ACCEPTANCE OF IMPROVEMENTS OR PROJECT COMPLETION.

***NOTE: PLAN ACCEPTANCE ONLY FOR COMFORMANCE WITH CITY STANDARDS. PLAN DESIGN AND ACCURACY IS THE RESPONSIBILITY OF THE STAMPING ENGINEER.**



21ST AVE TYPICAL SWALE CROSS SECTION (A)

SCALE: NOT TO SCALE



UNDERGROUND SERVICE ALERT
ONE-CALL NUMBER
811
CALL TWO BUSINESS DAYS BEFORE YOU DIG

WCE
WHIPPLE CONSULTING ENGINEERS
21 S. PINES RD.
SPOKANE VALLEY, WA. 99206
PH: 509-893-2617 FAX: 509-926-0227

S-9
9 OF 13

DATE	BY	PROJ	DESCRIPTION
4/01/21	JMH	C	FINAL PLAN SUBMITTAL FOR APPROVAL
2/10/21	JMH	B	REVISIONS TO PLANS PER C.O.S. COMMENTS
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REVISIONS

DATE	BY	PROJ.	E.F.N. . U.S.N.	FROM	TO

AS BUILT

COUNCIL ACCEPT DATE

FROM	TO	ORD. NO.	DATE	FILE NO.

GRADE ORDINANCE LIST

NAVD88 = (OLD CBM ELEV.) – (13.13) | AS OF JANUARY, 2000 USE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)

BENCH MARK LOCATION
INTERSECTION OF 29TH AVE & HAVANA ST

NAVD88 ELEV. 2297.37
CBM NO. 29S-42E
NAVD88 DATUM

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0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

HORIZONTAL PLAN/PROFILE 1"=50'
VERTICAL PROFILE ONLY 1"=10'
SCALE

CURRENT CITY/COUNTY DESIGN STANDARDS ADOPTED FEB,2007

	BY	DATES
DRAWN:	JMH	09/28/20
REVISED:	JMH	2/08/21
CHECKED:	TRW	2/10/21
APPROVED:	TRW	4/01/21

SPOKANE

CITY OF SPOKANE, WASHINGTON
DEPARTMENT OF ENGINEERING SERVICES
808 WEST SPOKANE FALLS BLVD.
SPOKANE, WASHINGTON 99201-3343
(509) 625-6300

PROJECT NAME: **21ST & CUBA DEVELPOMENT**

SEGMENT LIMITS: **21ST AVE PLAN & PROFILE**

PROJECT LIMITS: CUBA ST TO HAVANA ST

TYPE OF IMPROVEMENT: PUBLIC STREET

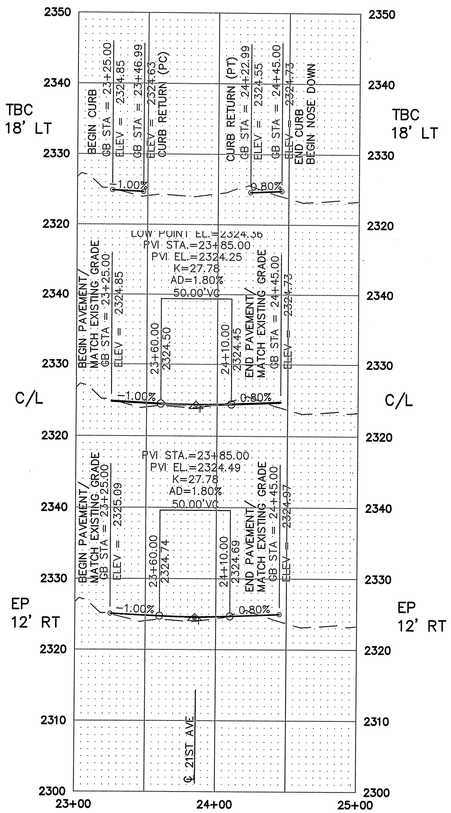
CITY PROJECT NUMBER: 2020612/2020613

CITY PLAN NUMBER: **21ST V(04)1 27-25-43**

EFN: **WCE 20-2725**

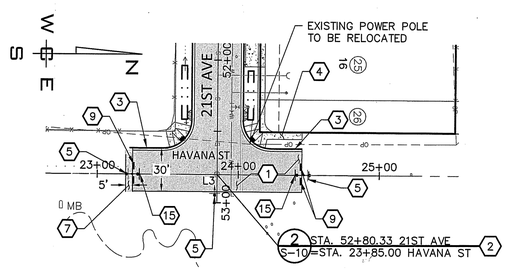
REGION NO.	STATE	FEDERAL AID PROJECT NO.	SHEET NO.
EASTERN	WASH.		

UNDERGROUND SERVICE ALERT
ONE-CALL NUMBER
811
CALL TWO BUSINESS DAYS BEFORE YOU DIG



HAVANA ST PROFILE VIEW

SCALE(H): 1"=50'
SCALE(V): 1"=10'



HAVANA ST PLAN VIEW

SCALE: 1"=50'

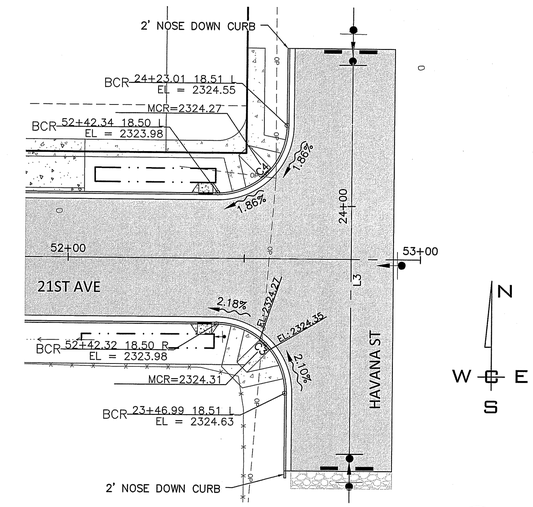
GRAPHIC SCALE
50 0 25 50 100
(IN FEET)
1 inch = 50 ft.

CONSTRUCTION NOTES

1. CONSTRUCT ROADWAY PER TYPICAL SECTION DETAILS, SHEET S-3.
2. PROVIDE AND INSTALL CENTERLINE MONUMENT PER CITY OF SPOKANE STANDARD PLANS H-101 AND H-105.
3. PROVIDE AND INSTALL CURB AND GUTTER PER CITY OF SPOKANE STANDARD PLAN F-106.
4. PROVIDE AND INSTALL 5' SIDEWALK PER CITY OF SPOKANE STANDARD PLAN F-102B.
5. PROVIDE AND INSTALL "NO PARKING" SIGN AND POST PER CITY OF SPOKANE STANDARD PLAN G-10A. SEE SIGN DETAIL, THIS SHEET.
6. CONSTRUCT DRAINAGE POND PER TYPICAL SECTION DETAIL C, THIS SHEET AND PER CITY OF SPOKANE STANDARDS AND SPECIFICATIONS.
7. PROVIDE AND INSTALL 8" CSTC GRAVEL. MATCH TO EXISTING GRADE.
8. PROVIDE AND INSTALL DRAINAGE DITCH PER HAVANA ST CROSS SECTION, SHEET S-3 AND PER V-DITCH CROSS SECTION, DETAIL B ON SHEET S-11.
9. PROVIDE AND INSTALL ECOLOGY BLOCK BARRICADE AT END OF ROAD PER ECOLOGY BLOCK DETAIL, THIS SHEET. PLACE ONE ECOLOGY BLOCK IN EACH LANE OF TRAVEL WITH OBJECT MARKER SIGN OM4-1 WITH RETROREFLECTIVE DEVICES FASTENED TO BOTH SIDES OF ECOLOGY BLOCKS PER OBJECT MARKER SIGN DETAIL AND PER MUTCD STANDARDS. CONNECT ECOLOGY BLOCKS WITH 3/8" WIRE ROPE BETWEEN EYELETS OF LIFTING LOOP.
10. TO 14. RESERVED.
15. PROVIDE AND INSTALL TYPE 3X1 END OF ROAD BARRICADE PER CITY OF SPOKANE STANDARD PLAN G-92A. PLACE BARRICADE ON TRAFFIC SIDE OF ECOLOGY BLOCKS.

Line Table (℄)		
Line #	Length	Direction
L1	386.31	N0° 03' 32"E
L2	687.34	S89° 53' 11"E
L3	120.00	N0° 07' 42"E

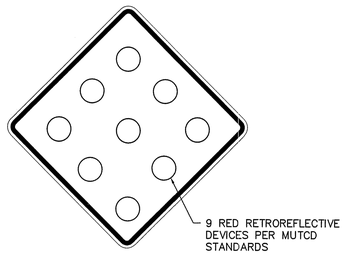
Curve Table (TBC)			
Curve #	Length	Radius	Delta
C1	30.46	19.50	89.50
C2	30.62	19.50	89.98
C3	30.64	19.50	90.02
C4	30.63	19.50	89.98



INTERSECTION DETAIL (2)

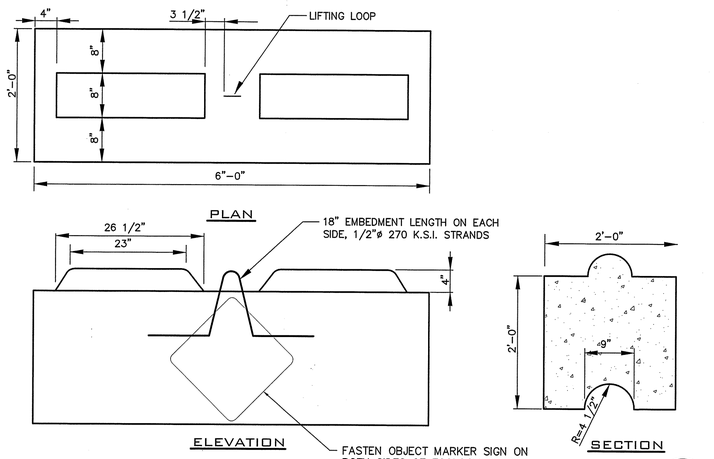
HAVANA ST & 21ST AVE
SCALE: 1"=20'

NO-PARKING SIGNS



OM4-1

OBJECT MARKER SIGNS



ECOLOGY BLOCKS (4)

NOT TO SCALE

CITY OF SPOKANE DEVELOPMENT SERVICE CENTER DEPARTMENT

-CONSTRUCTION PLANS-

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PH: 509-893-2617 FAX: 509-926-0227

TODD R. WHIPPLE — STATE OF WASHINGTON — 25462 — REGISTERED PROFESSIONAL ENGINEER — 4-1-21

S-10
10 OF 13

DATE	BY	PROJ	DESCRIPTION
4/01/21	JMH	C	FINAL PLAN SUBMITTAL FOR APPROVAL
2/10/21	JMH	B	REVISIONS TO PLANS PER C.O.S. COMMENTS
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REVISIONS

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AS BUILT

FROM	TO	ORD. NO.	DATE	FILE NO.

GRADE ORDINANCE LIST

NAVD88 = (OLD CBM ELEV.) – (13.13) | AS OF JANUARY, 2000 USE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)

BENCH MARK LOCATION
INTERSECTION OF 29TH AVE & HAVANA ST
NAVD88 ELEV. 2297.37
CBM NO. 29S-42E
NAVD88 DATUM

BAR IS ONE INCH ON ORIGINAL DRAWING. 0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

HORIZONTAL PLAN&PROFILE VARIES
VERTICAL PROFILE ONLY 1"=10'
SCALE

CURRENT CITY/COUNTY DESIGN STANDARDS ADOPTED FEB,2007

	BY	DATES
DRAWN:	JMH	09/28/20
REVISED:	JMH	2/08/21
CHECKED:	TRW	2/10/21
APPROVED:	TRW	4/01/21

CITY OF SPOKANE, WASHINGTON
DEPARTMENT OF ENGINEERING SERVICES
808 WEST SPOKANE FALLS BLVD.
SPOKANE, WASHINGTON 99201-3343
(509) 625-6300

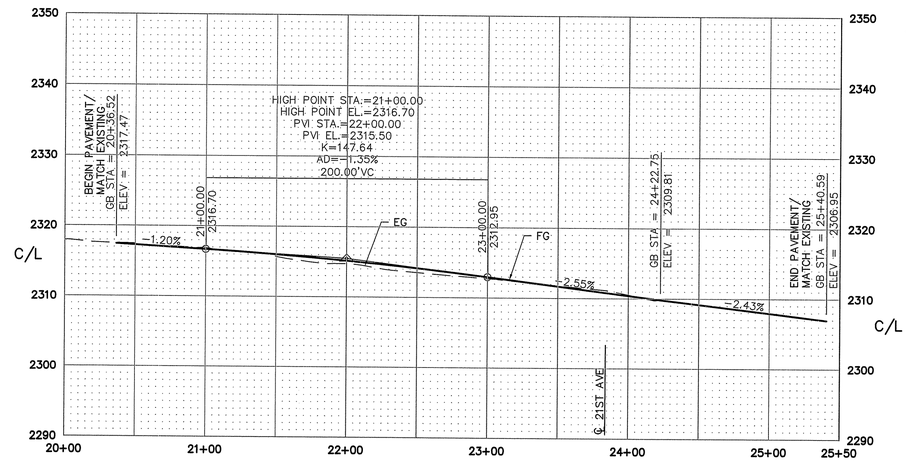
PROJECT NAME: 21ST & CUBA DEVELPOMENT

SEGMENT LIMITS: HAVANA ST P & P AND INTERSECTIONS

PROJECT LIMITS: CUBA ST TO HAVANA ST

TYPE OF IMPROVEMENT:	PUBLIC STREET
CITY PROJECT NUMBER	CITY PLAN NUMBER
2020612/2020613	HAVAN S(03)4 27-25-43

EFN: WCE 20-2725

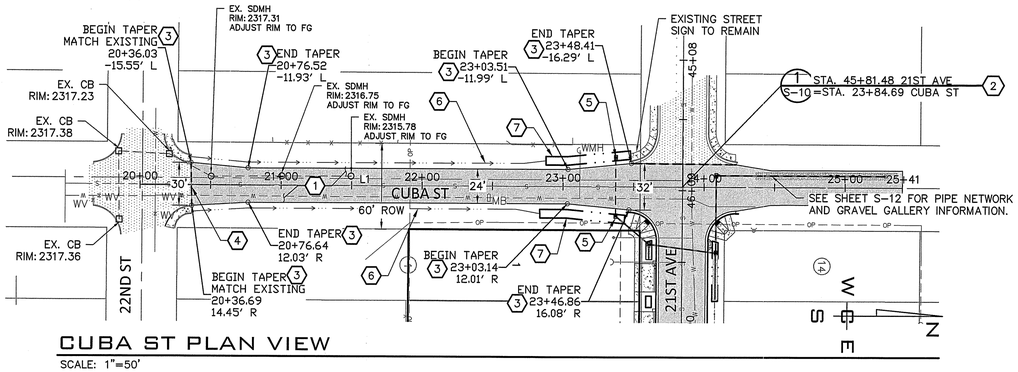


CUBA ST PROFILE VIEW

SCALE(H): 1"=50'
SCALE(V): 1"=10'

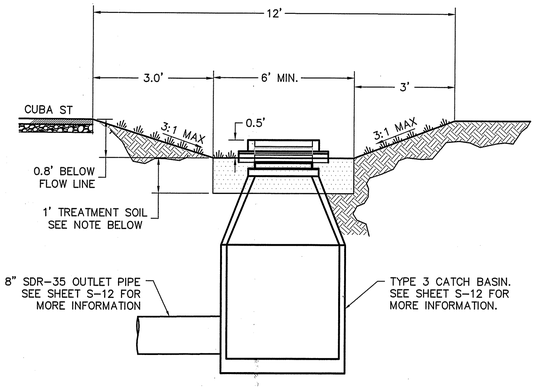
CONSTRUCTION NOTES

1. CONSTRUCT ROADWAY PER TYPICAL SECTION DETAILS, SHEET S-3.
2. PROVIDE AND INSTALL CENTERLINE MONUMENT PER CITY OF SPOKANE STANDARD PLANS H-101 AND H-105.
3. TAPER PAVEMENT TO MISS EXISTING UTILITIES. SEE PLAN VIEW FOR TAPER LOCATIONS.
4. SAWCUT AND TACK COAT PAVEMENT PER INLAND NORTHWEST PAVEMENT CUT POLICY.
5. PROVIDE AND INSTALL TYPE 3 CATCH BASIN WITH TYPE 3 FRAME AND BI-DIRECTIONAL GRATE PER CITY OF SPOKANE STANDARD PLAN B-3B AND B-101E. SEE S-12 FOR RIM ELEVATION AND ADDITIONAL INFORMATION.
6. PROVIDE AND INSTALL DRAINAGE DITCH PER V-DITCH CROSS SECTION, THIS SHEET, AND PER CITY OF SPOKANE STANDARDS AND SPECIFICATIONS.
7. PROVIDE AND INSTALL ROADSIDE SWALE PER CUBA ST SWALE CROSS SECTION DETAIL A, THIS SHEET.



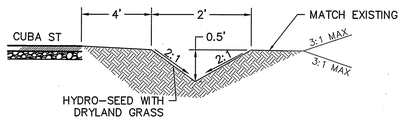
CUBA ST PLAN VIEW

SCALE: 1"=50'



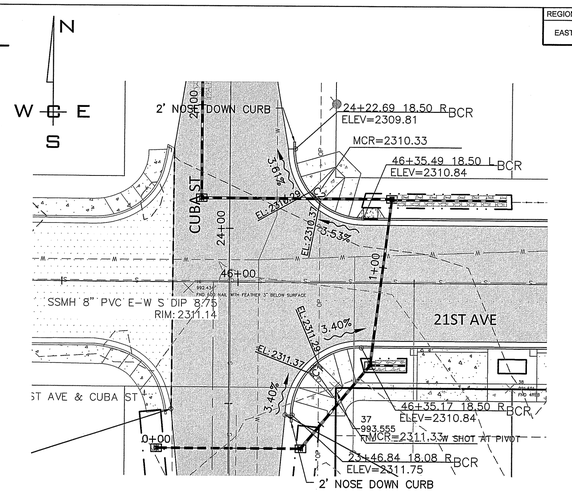
CUBA ST SWALE CROSS SECTION (A)

SCALE: NOT TO SCALE



V-DITCH CROSS SECTION (B)

NOT TO SCALE



INTERSECTION DETAIL (1)

CUBA ST & 21ST AVE
SCALE: 1"=20'

Line Table (℄)		
Line #	Length	Direction
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GRAPHIC SCALE
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(IN FEET)
1 inch = 50 ft.

REGION NO.	STATE	FEDERAL AID PROJECT NO.	SHEET NO.
EASTERN	WASH.		

UNDERGROUND SERVICE ALERT
ONE-CALL NUMBER
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CITY OF SPOKANE DEVELOPMENT SERVICE CENTER DEPARTMENT

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April 1, 2021

DATE PLANS ACCEPTED:_____

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TODD R. WHIPPLE — STATE OF WASHINGTON — 25462 — REGISTERED PROFESSIONAL ENGINEER — 4-1-21

S-11
11 OF 13

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4/01/21	JMH	C	FINAL PLAN SUBMITTAL FOR APPROVAL
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APPROVED:	TRW	4/01/21

THE CITY OF SPOKANE

CITY OF SPOKANE, WASHINGTON
DEPARTMENT OF ENGINEERING SERVICES
808 WEST SPOKANE FALLS BLVD.
SPOKANE, WASHINGTON 99201-3343
(509) 625-6300

PROJECT NAME: 21ST & CUBA DEVELPOMENT

SEGMENT LIMITS: CUBA ST P & P AND STORM DETAILS

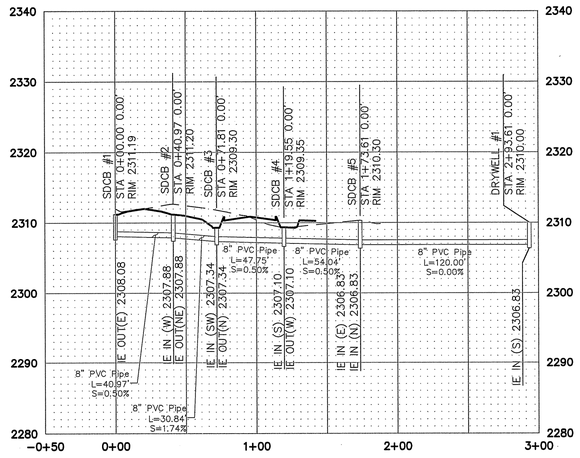
PROJECT LIMITS: CUBA ST TO HAVANA ST

TYPE OF IMPROVEMENT: PUBLIC STREET/STORM

CITY PROJECT NUMBER	CITY PLAN NUMBER
2020612/2020613	CUBA S(02)4 27-25-43

EFN: WCE 20-2725

REGION NO.	STATE	FEDERAL AID PROJECT NO.	SHEET NO.
EASTERN	WASH.		

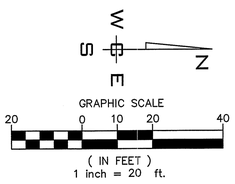


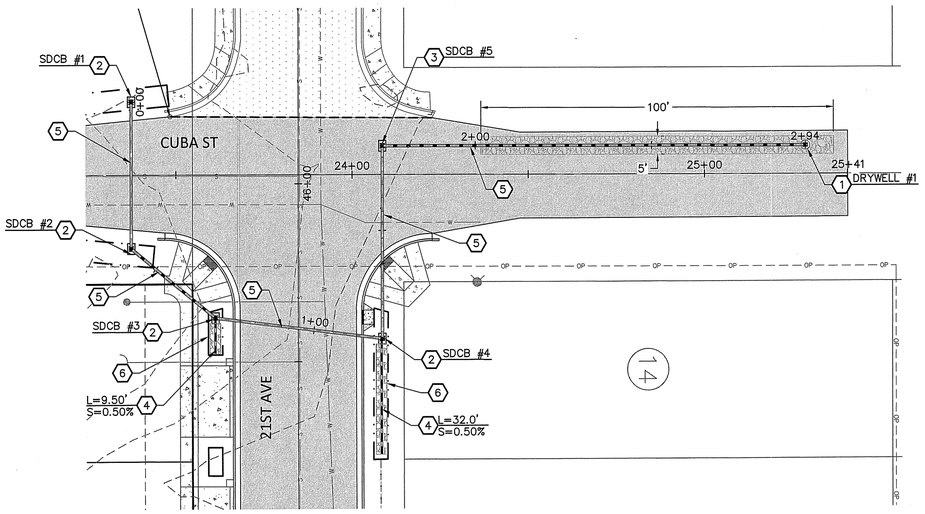
CUBA & 21ST STORM PIPE PROFILE VIEW

SCALE(H): 1"=50'
SCALE(V): 1"=10'

CONSTRUCTION NOTES

1. PROVIDE AND INSTALL TYPE 1 DRYWELL PER CITY OF SPOKANE STANDARD PLAN B–102C WITH SOLID LID LABELED "STORM" PER CITY OF SPOKANE STANDARD PLAN A–12. SEE PLAN VIEW FOR LOCATION AND RIM ELEVATION.
2. PROVIDE AND INSTALL TYPE 3 CATCH BASIN WITH TYPE 3 FRAME AND BI–DIRECTIONAL GRATE PER CITY OF SPOKANE STANDARD PLAN B–3B AND B–101E.
3. PROVIDE AND INSTALL TYPE 3 CATCH BASIN WITH TYPE 3 FRAME AND SOLID LID LABELED "STORM" PER CITY OF SPOKANE STANDARD PLAN B–3B AND B–101E.
4. PROVIDE AND INSTALL 6" SDR 35 PVC STORM PIPE. TRENCH AND BEDDING PER CITY OF SPOKANE STANDARD PLANS A–1 AND A–2. LENGTH AND SLOPE PER STORM PIPE PLAN VIEW, THIS SHEET.
5. PROVIDE AND INSTALL 8" SDR 35 PVC STORM PIPE. TRENCH AND BEDDING PER CITY OF SPOKANE STANDARD PLANS A–1 AND A–2. LENGTH AND SLOPE PER STORM PIPE PROFILE VIEW, THIS SHEET.
6. PROVIDE AND INSTALL STORMWATER POND WITH GRAVEL GALLERY PER POND WITH GALLERY CROSS SECTION DETAIL 1, THIS SHEET.
7. PROVIDE AND INSTALL GRAVEL GALLERY PER GRAVEL GALLERY CROSS SECTION DETAIL 1, THIS SHEET. SEE DETAIL A, THIS SHEET FOR MORE INFORMATION.





CUBA & 21ST STORM PIPE PLAN VIEW

SCALE: 1"=20'

WCE GENERAL STORM WATER NOTES

1. PROVIDE FILTER FABRIC (AMOCO 4545 OR EQUAL) BETWEEN THE NATIVE SOIL AND THE WASHED DRAIN ROCK
2. IF TWO OR MORE CURB INLETS ARE USED, SET POND BOTTOM WITH RESPECT TO THE LOWEST CURB INLET GUTTER FLOWLINE ELEVATION
3. FOR ALL SWALES AND PONDS, THE TOP 12 INCHES OF SOIL SHALL CONSIST OF A THOROUGHLY BLENDED MIX OF 50% COMPOST WITH 50% NATIVE SOILS.
4. WARNING – THE USE OF SILTY LOAM IS PROHIBITED AS POND BOTTOM MATERIAL.
5. 12" OF TREATMENT SOIL WITH AN INFILTRATIVE RATE BETWEEN 0.25 AND 0.5 INCHES/HOUR AND AVERAGE CATION EXCHANGE CAPACITY OF AT LEAST 15 MILLIQUIVELENTS/100 GRAMS OR AT LEAST 2% OF ORGANIC MATTER BY WEIGHT. SEE TABLE 6–1, PG. 6–16 OF THE SPOKANE REGIONAL STORMWATER MANUAL.
6. ALL DRYWELLS TO BE INSTALLED TO HAVE (1') ONE VERTICAL FOOT OF ADJUSTMENT.
7. ENGINEERING SHALL BE ON SITE, AND SHALL COLLECT TRUCK TICKETS FOR DRYWELL ROCK, AND SOIL.

SEEDING NOTE:

GRASS SEED: PROVIDE FRESH, CLEAN, NEW–CROP SEED COMPLYING WITH TOLERANCE OF PURITY AND GERMINATION ESTABLISHED BY THE OFFICIAL SEED ANALYSIS OF NORTH AMERICAN. PROVIDE SEED MIXTURE COMPOSED OF GRASS SPECIES AND PERCENTAGES AS FOLLOWS:

10 PER CENT	ELKA PERENNIAL RYE
25 PERCENT	DURAR HARD FESCUE
50 PERCENT	COVAR SHEEP/FESCUE
15 PERCENT	REUBENS CANADIAN BLUEGRASS

PROVIDE MIXTURE COMPOSED OF GRASS SEED AND FERTILIZER IN PERCENTAGES AS FOLLOWS:

GRASS SEED: 90 LBS. PER ACRE
FERTILIZER: 16–16–16 TIMED RELEASE COMPOSITION, 300 LBS. PER ACRE

ALL SEEDING OF SLOPES SHALL SHALL BE DONE IN ACCORDANCE WITH THE W.S.D.O.T. STANDARD SPECIFICATIONS, SECTION 8–01.

UNDERGROUND SERVICE ALERT
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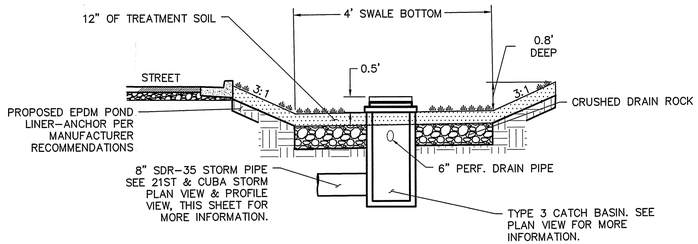
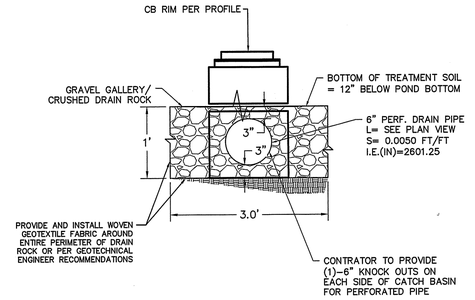
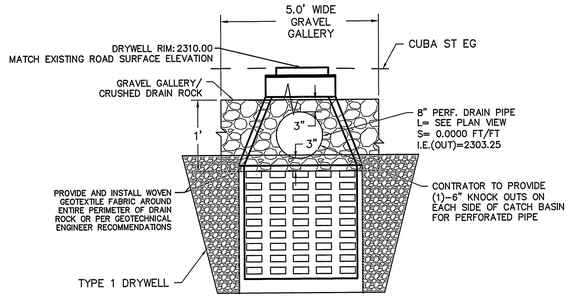


SWALE WITH GALLERY CROSS SECTION (A)

NOT TO SCALE





GRAVEL GALLERY CROSS SECTION (C)

NOT TO SCALE

CITY OF SPOKANE DEVELOPMENT SERVICE CENTER DEPARTMENT

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S-12
12 OF 13

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BENCH MARK LOCATION: INTERSECTION OF 29TH AVE & HAVANA ST
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REGISTERED SPOKANE PROFESSIONAL ENGINEER

CITY OF SPOKANE, WASHINGTON
DEPARTMENT OF ENGINEERING SERVICES
808 WEST SPOKANE FALLS BLVD.
SPOKANE, WASHINGTON 99201–3343
(509) 625–6300

PROJECT NAME: 21ST & CUBA DEVELPOMENT
SEGMENT LIMITS: STORM DETAILS
PROJECT LIMITS: CUBA ST TO HAVANA ST

TYPE OF IMPROVEMENT: PUBLIC STORM
CITY PROJECT NUMBER: 2020612/2020613
CITY PLAN NUMBER: CUBA S(02)4 27–25–43
EFN: WCE 20–2725

REGION NO.	STATE	FEDERAL AID PROJECT NO.	SHEET NO.
EASTERN	WASH.		

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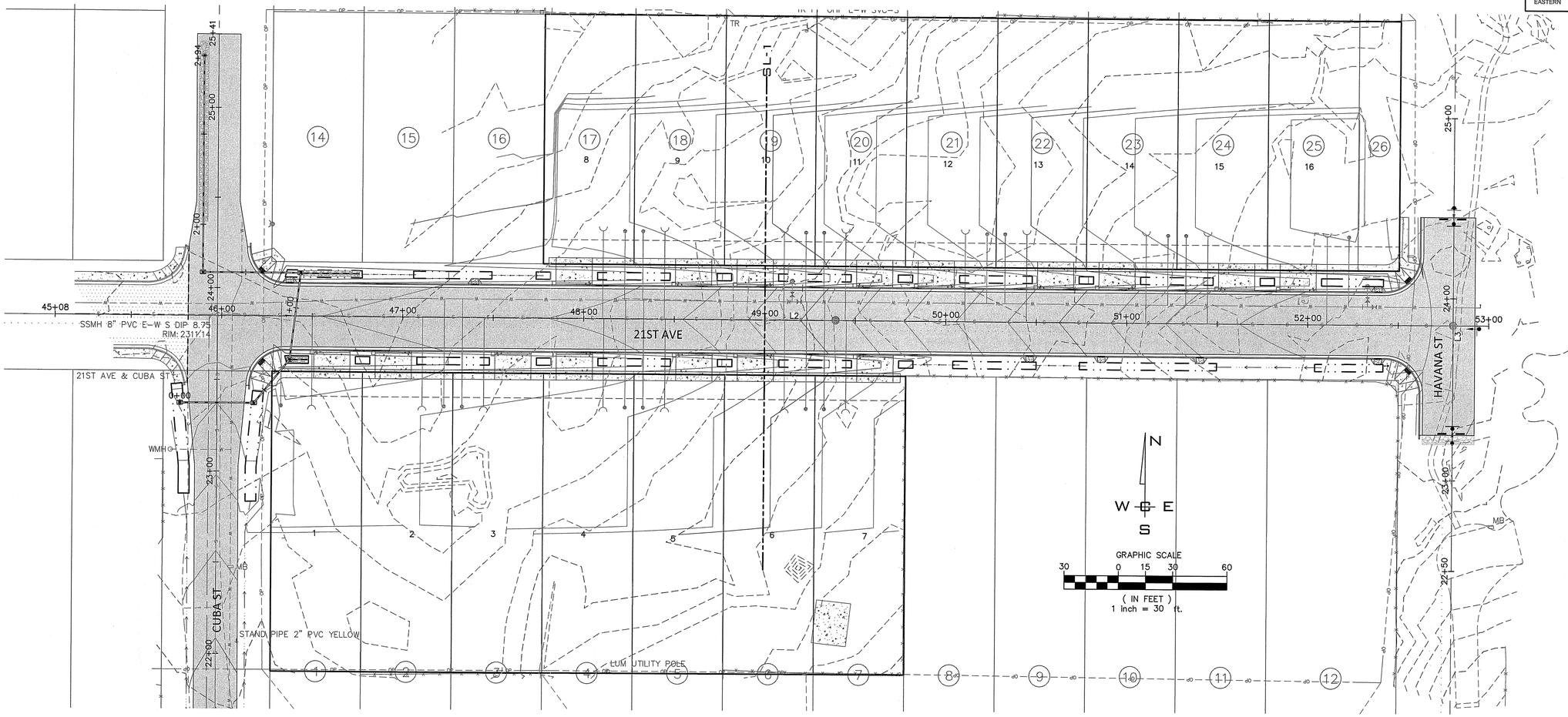
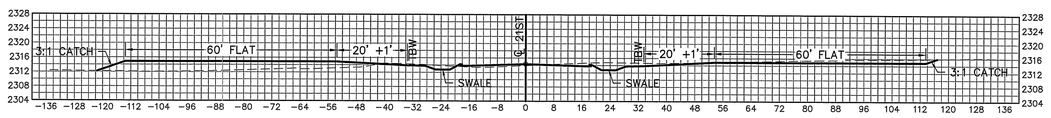


GRADING PLAN

SCALE: 1"=30'

GRADING QUANTITIES
CUT = 1,524 CY
FILL = 2,455 CY
NET = 931 CY (FILL)

SL-1
49+00.00



CITY OF SPOKANE DEVELOPMENT SERVICE CENTER DEPARTMENT

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S-13
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COUNCIL ACCEPT DATE	FROM	TO	ORD. NO.	DATE	FILE NO.

GRADE ORDINANCE LIST

NAVD88 = (OLD CBM ELEV.) - (13.13) | AS OF JANUARY, 2000 USE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)

BENCH MARK LOCATION
INTERSECTION OF 29TH AVE & HAVANA ST
NAVD88 ELEV. 2297.37
CBM NO: 29S-42E
NAVD88 DATUM

BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

HORIZONTAL PLAN&PROFILE 1"=30'
VERTICAL PROFILE ONLY 1"=10'
SCALE

CURRENT CITY/COUNTY DESIGN STANDARDS ADOPTED FEB,2007

	BY	DATES
DRAWN:	JMH	09/28/20
REVISED:	JMH	2/08/21
CHECKED:	TRW	2/10/21
APPROVED:	TRW	4/01/21

THE CITY OF SPOKANE

CITY OF SPOKANE, WASHINGTON
DEPARTMENT OF ENGINEERING SERVICES
808 WEST SPOKANE FALLS BLVD.
SPOKANE, WASHINGTON 99201-3343
(509) 625-6300

PROJECT NAME: **21ST & CUBA DEVELPOMENT**

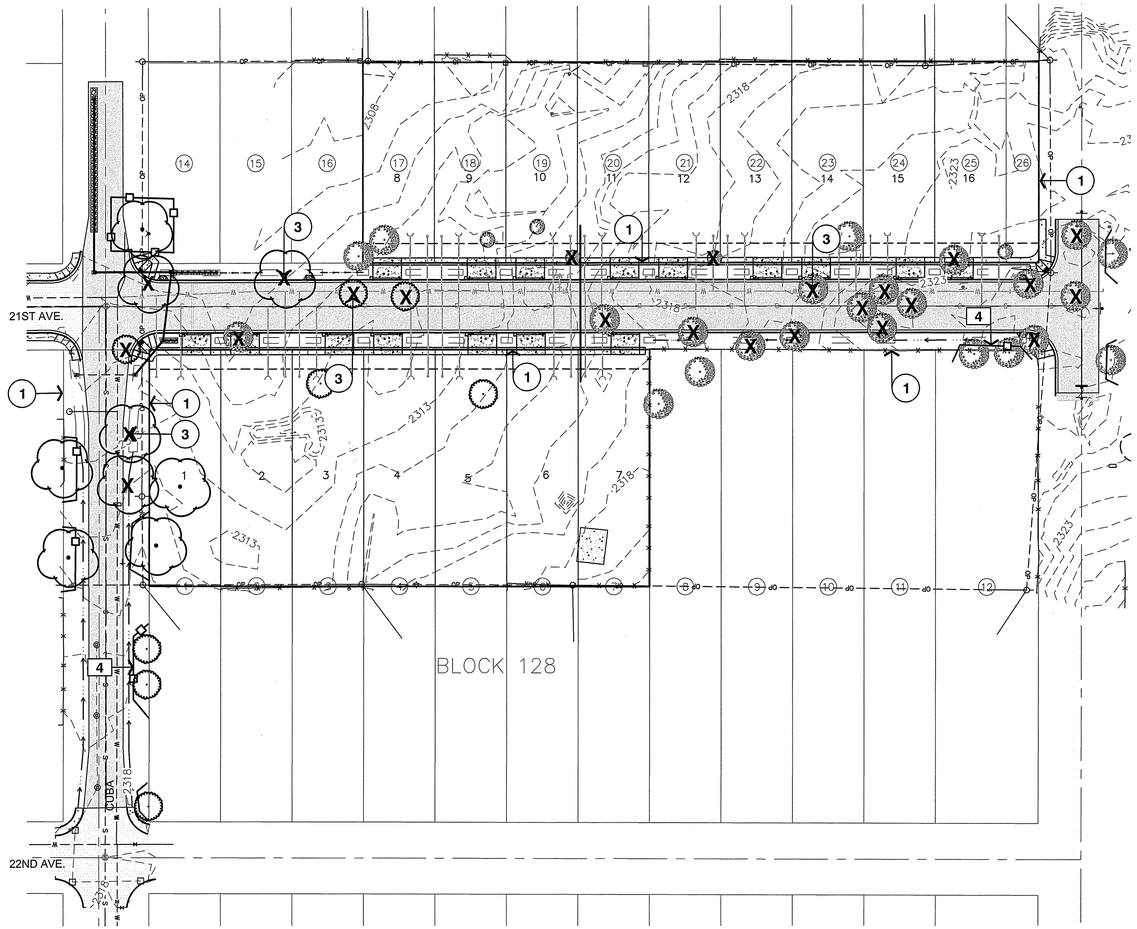
SEGMENT LIMITS:
GRADING PLAN

PROJECT LIMITS: CUBA ST TO HAVANA ST

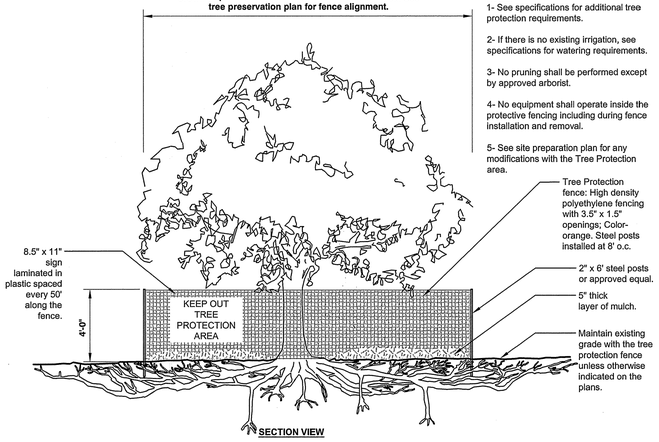
TYPE OF IMPROVEMENT: PUBLIC STREET/STORM

CITY PROJECT NUMBER	CITY PLAN NUMBER
2020612/2020613	GRADING 27-25-43

EFN: **WCE 20-2725**



1 TREE PROTECTION
1/4" = 1'-0"



Notes:
1- See specifications for additional tree protection requirements.

2- If there is no existing irrigation, see specifications for watering requirements.

3- No pruning shall be performed except by approved arborist.

4- No equipment shall operate inside the protective fencing including during fence installation and removal.

5- See site preparation plan for any modifications with the Tree Protection area.

URBAN TREE FOUNDATION © 2014
OPEN SOURCE FREE TO USE

AM-SI-02

REFERENCE NOTES SCHEDULE

SYMBOL	DESCRIPTION	QTY	DETAIL
1	RIGHT OF WAY		
3	EXISTING TREES TO BE REMOVED, TYPICAL		
4	TREE PROTECTION FENCE, TYPICAL, SEE DETAIL		

WCE GENERAL NOTES

1. ALL MATERIALS, WORKMANSHIP, AND CONSTRUCTION OF SITE IMPROVEMENTS SHALL MEET OR EXCEED SITE WORK STANDARDS AND THE STANDARDS AND SPECIFICATIONS SET FORTH IN THE CITY OF SPOKANE REGULATIONS AND APPLICABLE STATE AND FEDERAL REGULATIONS. WHERE THERE IS CONFLICT BETWEEN THESE PLANS AND THE SPECIFICATIONS, OR ANY APPLICABLE STANDARDS, THE HIGHER QUALITY STANDARD SHALL APPLY.
2. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES, AS SHOWN ON THESE PLANS, IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED UPON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE LOCAL UTILITY LOCATION CENTER AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATIONS OF EXISTING UTILITIES. THE CONTRACTOR SHALL VERIFY PERTINENT LOCATIONS AND ELEVATIONS, ESPECIALLY AT THE CONNECTION POINTS AND AT POTENTIAL UTILITY CONFLICTS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES THAT CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THESE PLANS.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FROM ALL APPLICABLE AGENCIES. THE CONTRACTOR SHALL NOTIFY THE CITY OF SPOKANE INSPECTOR AT LEAST 48 HOURS PRIOR TO THE START OF ANY EARTH DISTURBING ACTIVITY OR CONSTRUCTION ON ANY AND ALL PUBLIC IMPROVEMENTS.
4. THE CONTRACTOR SHALL COORDINATE AND COOPERATE WITH THE CITY OF SPOKANE AND ALL UTILITY COMPANIES WITH REGARD TO RELOCATIONS OR ADJUSTMENTS OF EXISTING UTILITIES DURING CONSTRUCTION, TO ASSURE THAT THE WORK IS ACCOMPLISHED IN A TIMELY FASHION, AND WITH A MINIMUM DISRUPTION OF SERVICE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING ALL PARTIES AFFECTED BY ANY DISRUPTION OF ANY UTILITY SERVICE.
5. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL LABOR AND MATERIALS NECESSARY FOR THE COMPLETION OF THE INTENDED IMPROVEMENTS SHOWN ON THESE DRAWINGS OR DESIGNATED TO BE PROVIDED, INSTALLED, CONSTRUCTED, REMOVED OR RELOCATED UNLESS SPECIFICALLY NOTED OTHERWISE.
6. PER AGENCY STANDARDS THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING ROADWAYS FREE AND CLEAR OF ALL CONSTRUCTION DEBRIS AND DIRT TRACKED FROM THE SITE.
7. DIMENSIONS FOR LAYOUT AND CONSTRUCTION ARE NOT TO BE SCALED FROM ANY DRAWING. FOR ADDITIONAL INFORMATION CONTACT THE ENGINEER FOR CLARIFICATION AND NOTE ON THE RECORD DRAWINGS.

URBAN FORESTRY NOTES:

1. PRIOR TO SITE/ SOIL WORK AN ONSITE MEETING SHALL BE HELD WITH URBAN FORESTRY , CERTIFIED ARBORIST AND THE GENERAL CONTRACTOR. PLEASE CALL URBAN FORESTRY TO SCHEDULE AN ONSITE MEETING.
2. TREES BEING RETAINED IN THE PUBLIC RIGHT OF WAY MAY NEED ROOT TREATMENTS PRIOR TO DEMO OR INSTALLATION OF ROAD. THESE TREES WILL BE IDENTIFIED DURING ONSITE MEETING WITH THE ARBORIST AND GENERAL CONTRACTOR.
3. ALL TREES IN THE PUBLIC RIGHT OF WAY THAT ARE BEING RETAINED AND PROTECTED SHALL BE PRUNED PER CITY STANDARDS FOR STREET STREET CLEARANCE 14' PRIOR TO ANY SOIL/ SITE WORK AND PRIOR TO THE INSTALLATION OF THE TREE PROTECTION FENCING BY AN ISA CERTIFIED ARBORIST WITH A TREE PERMIT.
4. TREE PROTECTION FENCING SHALL BE INSTALLED PRIOR TO ANY SITE/ SOIL WORK AND MUST REMAIN INTACT THROUGHOUT ALL PHASES OF CONSTRUCTION.

CITY OF SPOKANE DEVELOPMENT SERVICE CENTER DEPARTMENT

-CONSTRUCTION PLANS-
April 1, 2021

DATE PLANS ACCEPTED:_____

AS-BUILD OF THIS PLAN AND CONSTRUCTION INFORMATION ARE REQUIRED PRIOR TO CITY ACCEPTANCE OF IMPROVEMENTS OR PROJECT COMPLETION.

*NOTE: PLAN ACCEPTANCE ONLY FOR COMFORMANCE WITH CITY STANDARDS. PLAN DESIGN AND ACCURACY IS THE RESPONSIBILITY OF THE STAMPING ENGINEER.

UNDERGROUND SERVICE ALERT
ONE-CALL NUMBER
811
CALL TWO BUSINESS DAYS BEFORE YOU DIG

LANDSCAPE NOTES:

1. NO PLANTING SHALL BE DONE UNTIL INSTALLATION OF THE SPRINKLER SYSTEM IS COMPLETED, FINAL GRADES HAVE BEEN ESTABLISHED, PLANTING AREAS HAVE BEEN PROPERLY GRADED AND PREPARED AND THE WORK APPROVED BY THE LANDSCAPE ARCHITECT.
2. ALL PLANTS TO BE APPROVED BY THE DESIGNER OF THIS PLAN.
3. CONTRACTOR IS RESPONSIBLE FOR CHECKING ANY QUESTIONABLE NOTE, PLANT NAMES, SIZES, AND QUANTITIES.
4. IN THE EVENT OF DISCREPANCY OR SITE FACTORS AFFECTING INSTALLATION AS PER PLAN NOTIFY THE LANDSCAPE ARCHITECT.
5. ALL LAWN AREAS AND PLANTING BEDS SHALL BE STRIPPED AND CLEARED OF WEEDS, ROOTS, LAWN, AND DEBRIS. SPECIFIED LANDSCAPE AREAS SHALL BE RAKED TO A SMOOTH AND EVEN GRADE, AND ROCK/DEBRIS LARGER THAN 1.5" TO BE REMOVED.
9. TOP SOIL TO BE INSTALLED TO A DEPTH OF 4"; IN LAWN AREAS, UNLESS OTHER WISE NOTED. TOPSOIL BROUGHT TO THE SITE SHALL BE SANDY LOAM THAT IS NON-TOXIC, WELL-DRAINED AND FREE OF NOXIOUS WEEDS. GRASS, BRUSH, STICKS ROCKS, GREATER THAN 1" DIAMETER COARSE GRAVEL, HARD CLAY, AND OTHER DEBRIS UNLESS OTHERWISE NOTED, FINAL GRADE SHALL BE RAKED SMOOTH AND EVEN.
10. SUB GRADE IN ALL LANDSCAPE AREAS TO BE +/-0.5'.
11. TREE PLANTING SPECIFICATIONS
    - A. TREE PLANTING HOLES SHALL BE 3-5 TIMES THE DIAMETER OF THE ROOT BALL OF THE TREE TO BE PLANTED. THE TREE SHOULD BE CENTERED IN THE HOLE.
    - B. ROPES, STRINGS, BURLAP AND OTHER WRAPPING SHALL BE REMOVED FROM THE ROOT BALL. PLASTIC CONTAINERS AND WIRE BASKETS SHALL BE REMOVED ENTIRELY BEFORE TREE IS PLACED IN THE PLANTING HOLE.
    - C. SOIL UNDER THE TREE ROOT BALL WILL REMAIN UNDISTURBED TO SUPPORT ROOT BALL AND REDUCE SETTING.
    - D. THE ROOT COLLAR SHALL BE LEVEL OR UP TO 1 INCH ABOVE THE FINISHED GRADE.
    - E. BACKFILL USING EXISTING SOIL. WATER THOROUGHLY TO ELIMINATE AIR POCKETS. DO NOT TAMP.
    - F. COVER THE TREE RING AREA (MINIMUM OF 6' DIAMETER) WITH 2 TO 4 INCHES OF ORGANIC MATERIAL. MULCH SHOULD BE NO CLOSER THAN 4 INCHES FROM THE ROOT COLLAR OF THE TREE.COMPOST OR WOOD CHIPS ARE ACCEPTABLE MULCH MATERIALS. DO NOT USE ROCK AS MULCH.
    - G. STAKE ONLY IF NECESSARY FOR STABILITY. TIES SHOULD BE TIGHT ENOUGH TO SUPPORT THE TREE WHILE ALLOWING THE TREE TO SWAY. ALL TIES AND STAKES SHALL BE REMOVED WITHIN A YEAR. IF THE TREE STILL REQUIRES SUPPORT, CONTRACTOR MUST REPLACE TREE.
    - H. WATER NEW TREES TO A DEPTH OF 12 TO 18 INCHES AT LEAST ONCE A WEEK DURING THE FIRST THREE GROWING SEASONS. DURING PERIODS OF DROUGHT, NEW TREES NEED MORE FREQUENT WATERING. TREES SHOULD BE ON A SEPARATE ZONE FROM TURF.
    - I. MAINTAIN TREE RINGS (MULCHED AREA) OR INSTALL ADEQUATE EDGING MATERIAL TO KEEP TURF AND WEEDS OUT OF THE RING.
    - J. ROOT BARRIERS SHALL BE USED WHEN PLANTING TREES WITH FOUR FEET (4') OF ANY PUBLIC CURB OR SIDEWALK.
12. AMENDED BACKFILL FOR SHRUB PLANTING HOLES SHALL BE:
    A. 80% OF ON SITE SOIL.
    B. 20% OF ORGANIC AMENDMENT.
13. ALL PLANT MATERIAL SHALL CONFORM TO THE CURRENT AMERICAN ASSOCIATION OF NURSERYMEN'S NATIONAL STANDARD SPECIFICATIONS.
14. ALL PLANT MATERIAL INSTALLED BY THE LANDSCAPE CONTRACTOR SHALL BE WARRANTED FOR 1-YEAR. LANDSCAPE CONTRACTOR SHALL REPLACE ANY PLANTS WHICH ARE DEAD, EXCEPT THOSE DUE TO VANDALISM OR NEGLECT, WITH PLANT MATERIAL EQUAL TO ORIGINAL.
15. CONTRACTOR SHALL VERIFY ALL QUANTITIES. IN THE CASE OF A DISCREPANCY, THE ILLUSTRATED LOCATIONS SHALL DICTATE COUNT.
16. NO SUBSTITUTIONS WILL BE ALLOWED WITHOUT THE WRITTEN CONSENT OF THE LANDSCAPE ARCHITECT AND OR THE OWNER. ANY SUBSTITUTIONS OF STREET TREE SPECIES MUST SAVE WRITTEN APPROVAL FROM URBAN FORESTRY PRIOR TO INSTALLATION.
17. THREE INCHES (3") OF BLACK BASALT CHIP MULCH IS TO BE USED IN ALL SHRUB BEDS. UNLESS OTHERWISE NOTED. SPREAD PREEN OR EQUIVALENT, BEFORE MULCH PLACEMENT, TO PREVENT WEEDS. (DO NOT APPLY PREEN TO SOIL/BEDS WHERE STREET TREES EXIST OR WILL BE PLANTED).
18. FERTILIZER TABLETS SHALL BE AGRIFORM "PLANTING TABLETS" AS MANUFACTURED BY AGRIFORM INTERNATIONAL CHEMICAL, INC. OR EQUAL. (DO NOT APPLY FERTILIZER TO SOIL OR BEDS WERE STREET TREES EXIST OR WILL BE PLANTED). FERTILIZE ONLY AFTER THE FIRST YEAR PLANTED, ONLY IF THE PLANTS NEED FERTILIZER, PER THE FOLLOWING SCHEDULE:

PLANT SIZE	TABLET QUAN.	TABLET STRENGTH
1-2 GAL.	1	10 GRAM
5 GAL.	2	21 GRAM
3/4"-1 1/4" CAL.	4	21 GRAM

19. MAINTAIN A 2' MIN. SPACE BETWEEN BUILDING WALLS AND MATURE WIDTH OF ADJACENT PLANTS.
20. CONTRACTOR SHALL INSTALL LANDSCAPE EDGER PER MANUFACTURER'S PLAN.
21. NO TREE SHALL BE PLANTED WITHIN (15) FEET OF ANY DRIVEWAY, ALLEY, STREETLIGHT, UTILITY POLE, NON-SAFETY STREET SIGN (EX. PARKING, STREET NAME) OR FIRE HYDRANT. NO TREE SHALL BE PLANTED WITHIN (20) FEET OF A CRITICAL STREET SAFETY SIGN (EX. STOP, YIELD, OR PEDESTRIAN CROSSING). THE POTENTIAL PLACEMENT OF STREET SIGNS STREET LIGHTS AND UTILITY POLES SHALL BE EVALUATED TO LESSEN THE CONFLICTS WITH THE GROWTH OF EXISTING STREET TREES.
22. THE CONTRACTOR SHALL PLANT ALL TREES AND SHRUBS ON SITE ACCORDING TO DETAIL V-101 AND V-102.
23. A PUBLIC TREE PERMIT IS REUIRED, PRIOR TO STREET/PUBLIC TREE INSTALLATION AND REMOVAL. PLEASE HAVE THE CONTRACTED LICENSED CERTIFIED ARBORIST SUBMIT A COMPLETED PUBLIC TREE PERMIT APPLICATION AT LEAST 10 DAYS PRIOR TO WORK BEING PERFORMED FOR THIS PROJECT TO INCLUDE CERTIFIED ARBORIST INFORMATION WITH START AND COMPLETION DATES. THE LANDSCAPE ARCHITECT IS RESPONSIBLE FOR ENSURING THAT THE GENERAL CONTRACTOR IS AWARE AND COMPLIANT WITH THIS REQUIREMENT. THE PERMIT AND INSTRUCTIONS ARE FOUND ON THE CITY OF SPOKANE URBAN FORESTRY WEB SITE.
24. VERIFY THAT ALL STREET TREES WILL HAVE A MINIMUM OF 100 CUBIC FEET OF UNCOMPACTED SOILS (3' DEEP).

N
W E
S

GRAPHIC SCALE
50 0 25 50 100
(IN FEET)
1 inch = 50 ft.

PLANS NOT APPROVED BY AGENCY

STATE OF WASHINGTON
SUSAN MARIE MOSS
EXPIRES 10/3/2021
REGISTERED LANDSCAPE ARCHITECT
04/01/21

NO.	DATE	BY	REVISIONS

SCALE:
HORIZONTAL: 1"=50'
VERTICAL: N/A

PROJ #: 20-2725
DATE: 04/01/21
DRAWN: SMM
REVIEWED: TRW

	CIVIL
	STRUCTURAL
	SURVEYING
	TRAFFIC
	PLANNING
X	LANDSCAPE
	OTHER

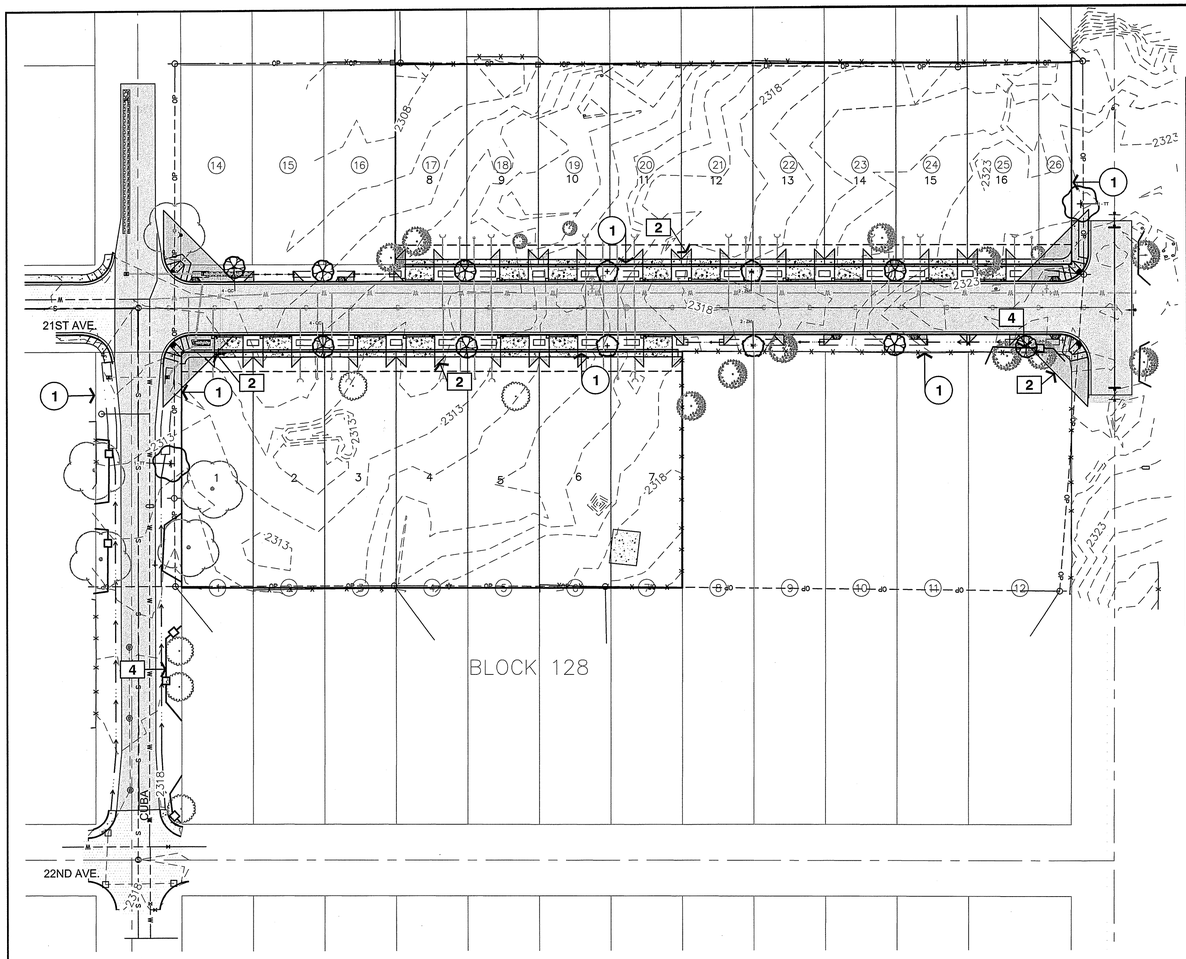
WCE
WHIPPLE CONSULTING ENGINEERS
21 S. PINES ROAD
SPOKANE VALLEY, WA 99206
PH: 509-893-2617 FAX: 509-926-0227

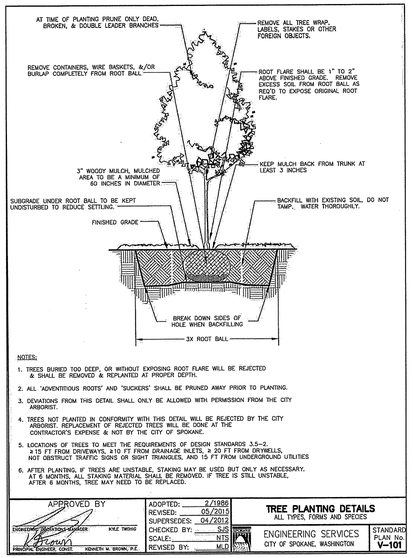
21ST & CUBA DEVELOPMENT
RIGHT OF WAY DEMO PLAN
SPOKANE, WA

SHEET L1.0

JOB NUMBER 20-2725

P:\WCE_WORK\2020 WCE PROJECTS\2020-2725 KINNEY- 21ST AND CUBA\DWG\2725-LA-ROWDMO PLOT DATE:07/01/21





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PLANT SCHEDULE				
TREES	CODE	BOTANICAL / COMMON NAME	SIZE	QTY
	TT	LIRIODENDRON TULIPIFERA `EMERALD CITY` EMERALD CITY TULIPTREE	2" CAL.	2
	QC	QUERCUS ROBUR X ALBA `CRIMSCHMIDT` TM CRIMSON SPIRE OAK	2" CAL.	8
	ZM	ZELKOVA SERRATA `MUSASHINO` MUSASHINO COLUMNAR ZELKOVA	2" CAL.	4

REFERENCE NOTES SCHEDULE			
SYMBOL	DESCRIPTION	QTY	DETAIL
1	RIGHT OF WAY		
2	CLEAR VIEW TRIANGLE, TYP.		
4	TREE PROTECTION FENCE, TYPICAL, SEE DETAIL		

CITY OF SPOKANE DEVELOPMENT SERVICE CENTER DEPARTMENT

-CONSTRUCTION PLANS-

April 1, 2021

DATE PLANS ACCEPTED:_____

AS-BUILD OF THIS PLAN AND CONSTRUCTION INFORMATION ARE REQUIRED PRIOR TO CITY ACCEPTANCE OF IMPROVEMENTS OR PROJECT COMPLETION.

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GRAPHIC SCALE
50 0 25 50 100
(IN FEET)
1 inch = 50 ft.

STATE OF WASHINGTON
SUSAN MARIE MOSS
No. 821 EXP. 10/13/2021
REGISTERED LANDSCAPE ARCHITECT
04/01/21

UNDERGROUND SERVICE ALERT
ONE-CALL NUMBER
811
CALL TWO BUSINESS DAYS BEFORE YOU DIG

NO.	DATE	BY	REVISIONS

SCALE:
HORIZONTAL: 1"=50'
VERTICAL: N/A

PROJ #: 20-2725
DATE: 04/01/21
DRAWN: SMM
REVIEWED: TRW

- CIVIL
- STRUCTURAL
- SURVEYING
- TRAFFIC
- PLANNING
- X LANDSCAPE
- OTHER

WCE
WHIPPLE CONSULTING ENGINEERS
21 S. PINES ROAD
SPOKANE VALLEY, WA 99206
PH: 509-893-2617 FAX: 509-926-0227

21ST & CUBA DEVELOPMENT
STREET TREE PLAN
SPOKANE, WA

SHEET L1.1

JOB NUMBER 20-2725

P:\WCE_WORK\2020 WCE PROJECTS\2020-2725 KINNEY - 21ST AND CUBA\DWG\2725-LAYME PLOT DATE=04/01/21