Community & Economic Development Department www.adcogov.org



4430 South Adams County Parkway 1st Floor, Suite W2000 Brighton, CO 80601-8204 PHONE 720.523.6800 FAX 720.523.6998

Re-submittal Form

The Submittee I of many
Case Name/ Number: 5200 wyordot Project/PRC2020/00003
Case Manager: Lag la Bajelan
Re-submitted Items:
Development Plan/ Site Plan
Plat
Parking/ Landscape Plan
Engineering Documents
Subdivision Improvements Agreement (Microsoft Word version)
Other:
* All re-submittals must have this cover sheet and a cover letter addressing review comments.
Please note the re-submittal review period is 21 days.
The cover letter must include the following information:
 Restate each comment that requires a response
Provide a response below the comment with a description of the revisions
Identify any additional changes made to the original document
For County Use Only:
Date Accepted:
Staff (accepting intake):
Resubmittal Active: Addressing, Building Safety, Neighborhood Services,
Engineering, Environmental, Parks, Planner, ROW, SIA - Finance, SIA - Attorney

Response to review comments needed:

- -PLN01: Information noted, no response needed.
- -PLN02:
 - -4 We adjusted side setbacks to 5ft. See plans.
 - -All other information noted, no comments needed.
- -PLN03: Plans will reflect all these considerations including 2 parking spaces per unit and bicycle parking.
- -PLN04: Attached is my revised SIA.
- -PLN05: I acknowledge the Cash in Lieu and PLD fees.
- -PLN06: We respectfully request a waiver from the requirements of Adams County code section 5-03-03-06 to allow a greater width to depth ratio to meet our 27ft to 112ft geometry.
- -PLN07: Information noted, no response needed.
- -Engineering from Greg Labrie: All Information noted and will be reflected in plans.
- 6: Civil engineering addressed this comment in their response letter and updated drawing to ADA compliance.
 - -8: Water meter will be relocated to appropriate location on plans.
- -Storm Water Management plans: All comments have been addressed by civil engineering letter and new proposed water quality plans. See attached
- -Letter from Colorado Division of Water Resources: Please refer to the Will Serve Letter from Berkeley Water and Sanitation
- -Adams County Fire and Rescue: Information noted, no response needed.
- -Colorado Geological Survey: Information noted, no response needed.
- -Denver Water: Information noted, no response needed.
- -RTD Letter: Information noted, no response needed.
- -Excel Energy Letter: Information noted, no response needed.
- -CDOT letter: Information noted, no response needed.
- -Jean York's letter (from the neighborhood): I understand Jean's concern for his neighborhood and his desire for quality construction in his surroundings. We will build these units in accordance to the cities guidelines and building codes.

SUBDIVISION IMPROVEMENTS AGREEMENT

THIS AGREEMENT is made and entered into this 14 day of December, 2022, between Foster Properties, an LLC corporation qualified to do business in Colorado ("Developer"), whose address is 5200 Wyandot St. Denver, Colorado 80221 and the Board of County Commissioners of the County of Adams, State of Colorado ("County"), whose address is 4430 S. Adams County Parkway, Brighton, CO 80601.

WITNESSETH:

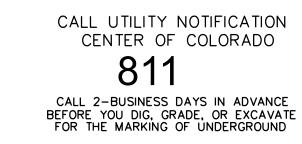
WHEREAS, Developer is the owner of real property in the County of Adams, State of Colorado, as described in attached hereto, and by this reference made a part hereof.

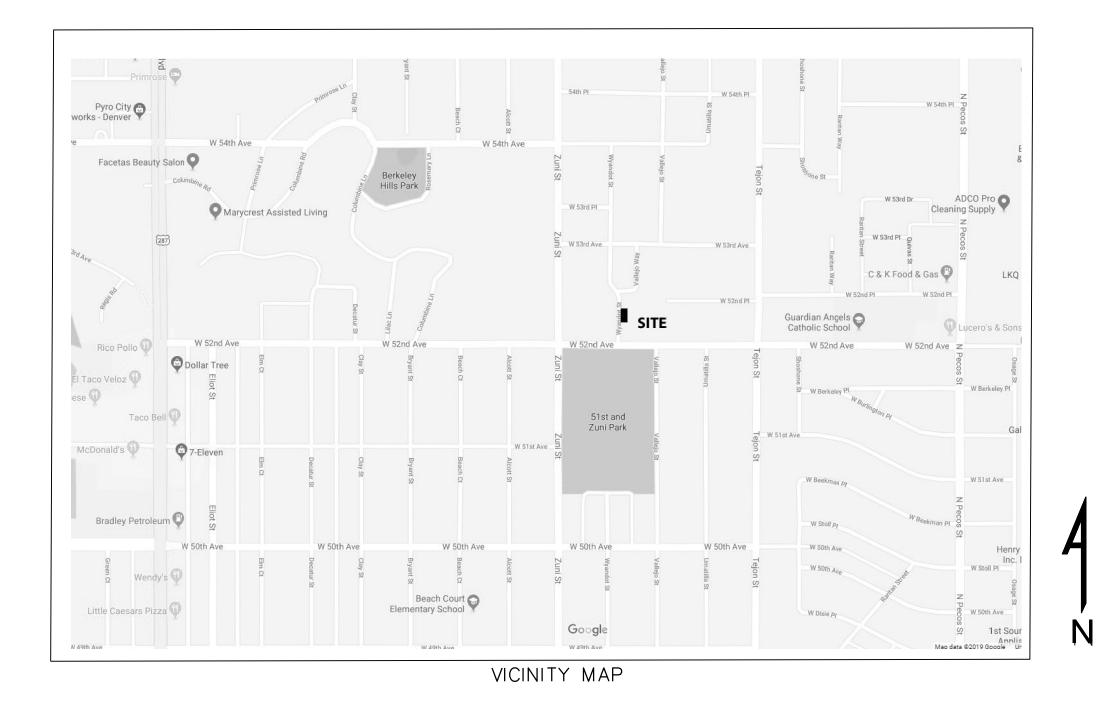
WHEREAS, it is provided by resolution of the Board of County Commissioners, County of Adams, that where designated the Developer shall have entered into a written agreement with the County to install public and/or private improvements, and to deed land for public purposes or right-of-way.

NOW, THEREFORE, in consideration of the foregoing, the parties hereto promise, covenant, and agree as follows:

- 1. Engineering Services. Developer shall furnish, at its own expense, all engineering and other services in connection with the design and construction of the improvements and by this reference made a part hereof ("Improvements").
- 2. Drawings and Estimates. The Developer shall furnish drawings and cost estimates for all improvements described for approval by the County. Upon request, the Developer shall furnish one set of reproducible "as built" drawings and a final statement of construction costs to the County.
- 3. Construction. Developer shall furnish and construct, at its own expense and in accordance with drawings and materials approved by the County, the Improvements described and detailed on construction plans.
- 4. Time for Completion. Improvements shall be completed according to the terms of this agreement within construction completion date within 2 years of permits being issued. The Director of Community and Economic Development Department may for good cause grant extension of time for completion of any part or all of Improvements appearing on plans. Any extension greater than 180 days may be approved only by the Board of County Commissioners. All extensions of time shall be in written form only.
- 5. Warranties of Developer. Developer warrants that the Improvements shall be installed in

Wyandot Subdivision





CIVIL ENGINEER

ARROW CIVIL ENGINEERS
2629 E GEDDES AVE
CENTENNIAL, CO 80122
303-329-9004

CONTACT: SUSAN P. MIZUNO

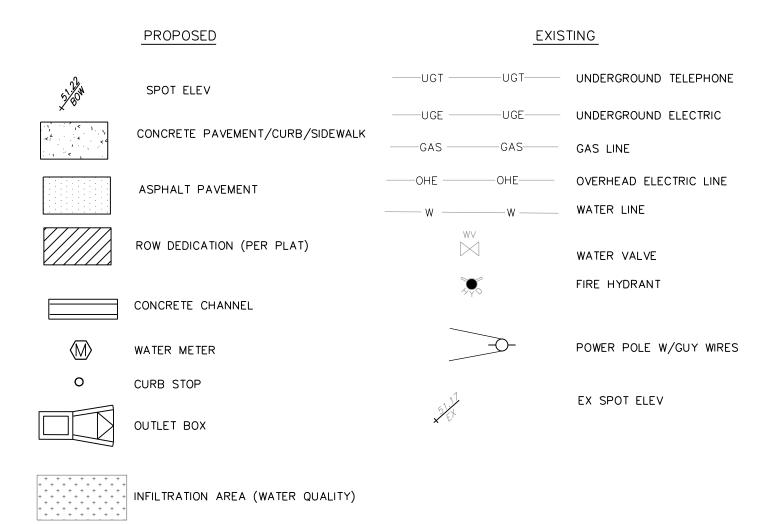
INDEX OF DRAWINGS

C4.0

COVER SHEET C2.0 ROADWAY PLAN AND PROFILE 52ND AVE CROSS-SECTIONS C2.2 WYANDOT CROSS-SECTIONS C2.3 ROADWAY DETAILS C3.0 GRADING PLAN C3.1 DRAINAGE DETAILS C3.2 EROSION CONTROL PLAN C3.3 SWMP DETAILS C3.4 SWMP DETAILS C3.5 SWMP DETAILS

UTILITY PLAN

LEGEND



ABBREVIATIONS

EX EXISTING
FL FLOWLINE
BOW BACK OF WALK
FOW FRONT OF WALK
T/W TOP OF WALL
B/W BOTTOM OF WALL
E/W END OF WALL

ALL SPOT ELEVS ARE FINSIHED GRADE UNLESS OTHERWISE NOTED

PLOT 5, EXCEPT THE NORTH 93.75 FEET, ROBBINS SUBDIVISION, COUNTY OF ADAMS, STATE OF COLORADO

LOCATED IN THE SW 1/4 OF THE NW 1/4 OF SECTION 16
TOWNSHIP 3 SOUTH, RANGE 68 WEST, 6TH P.M., COUNTY OF ADAMS, STATE OF COLORADO

BASIS OF BEARING: THE ASSUMED NORTH LINE OF THE SUBJECT PROPERTY (BEING THE NORTH LINE OF PLOT 5, EXCEPT THE NORTH 93.75 FEET) PER SURVEY MARKERS FOUND AS INDICATED ON THE MAP HEREON. LINE BEARS N89°49'03"E.

BENCHMARK: CITY OF DENVER BM VM-11 2-1/2" ALUMINUM CAP IN CONCRETE MONUMENT "VM11 LS 14599" ELEV 5350.41 (NAVD88). BENCHMARK IS LOCATED APPROXIMATELY 385' SOUTHWEST OF THE NE CORNER OF 52ND AND WYANDOT INTERSECTION

NOTE: ALL CONCRETE SHALL BE PLACED MONOLITHICALLY, 4500 PSI W/FIBER MESH

Indot Subdivisior
Wyandot St

olorado

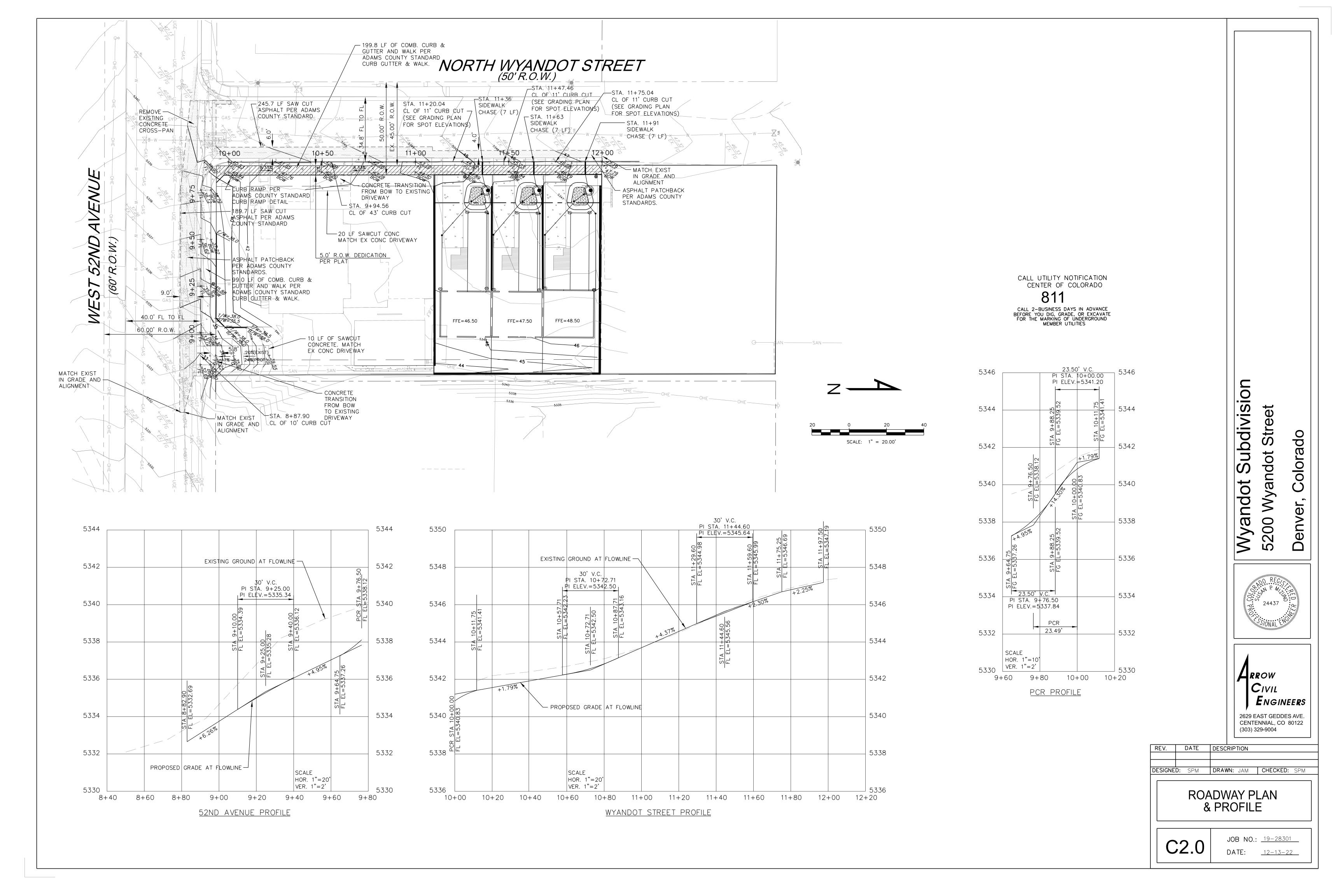


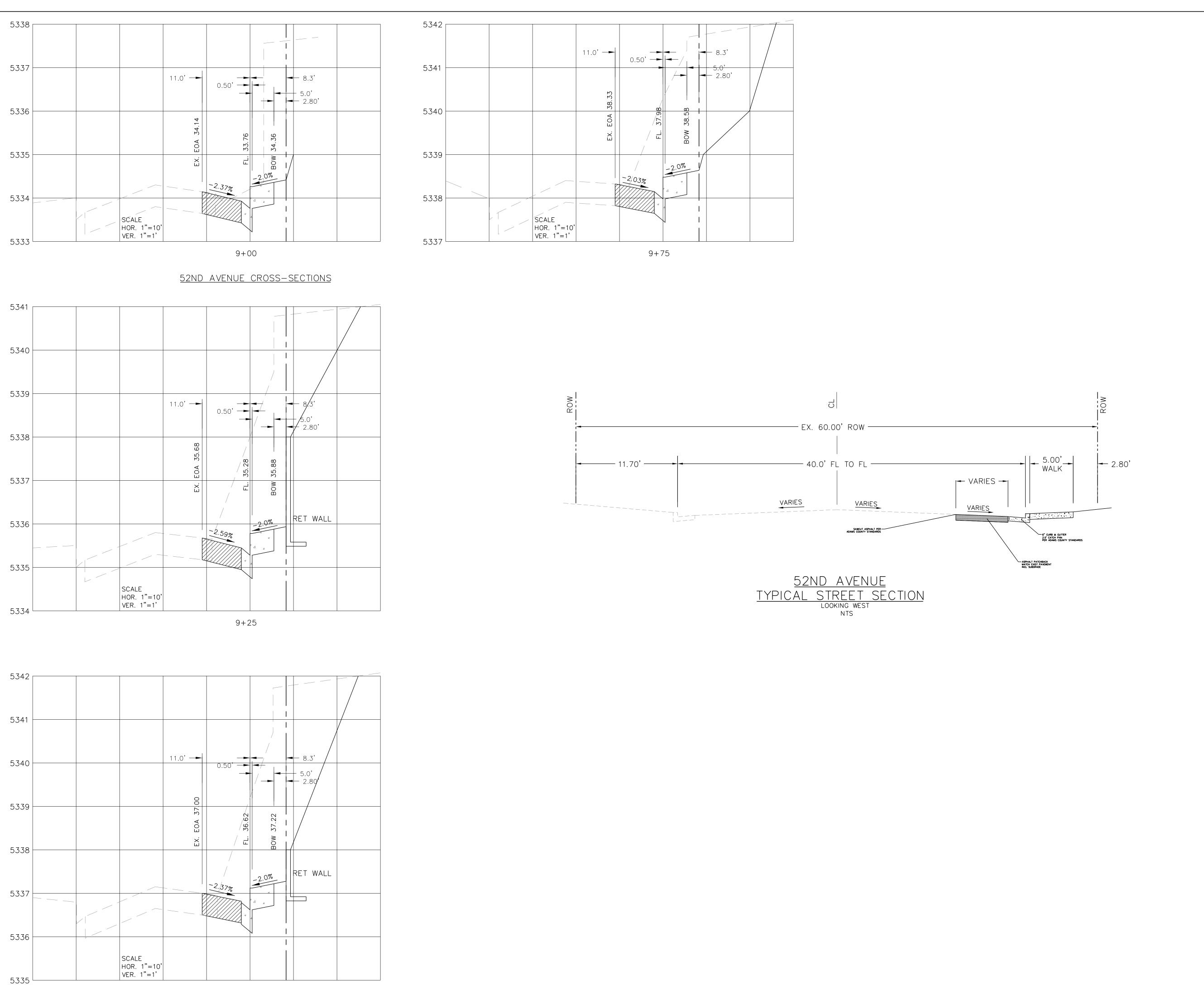
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COVER SHEET					

C1.0

JOB NO.: <u>19-28301</u>

DATE: <u>12-13-22</u>





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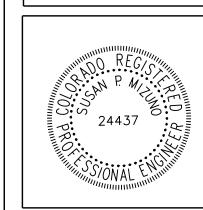
CALL UTILITY NOTIFICATION CENTER OF COLORADO

CALL 2-BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES

Wyandot Subdivision 5200 Wyandot Street

ado

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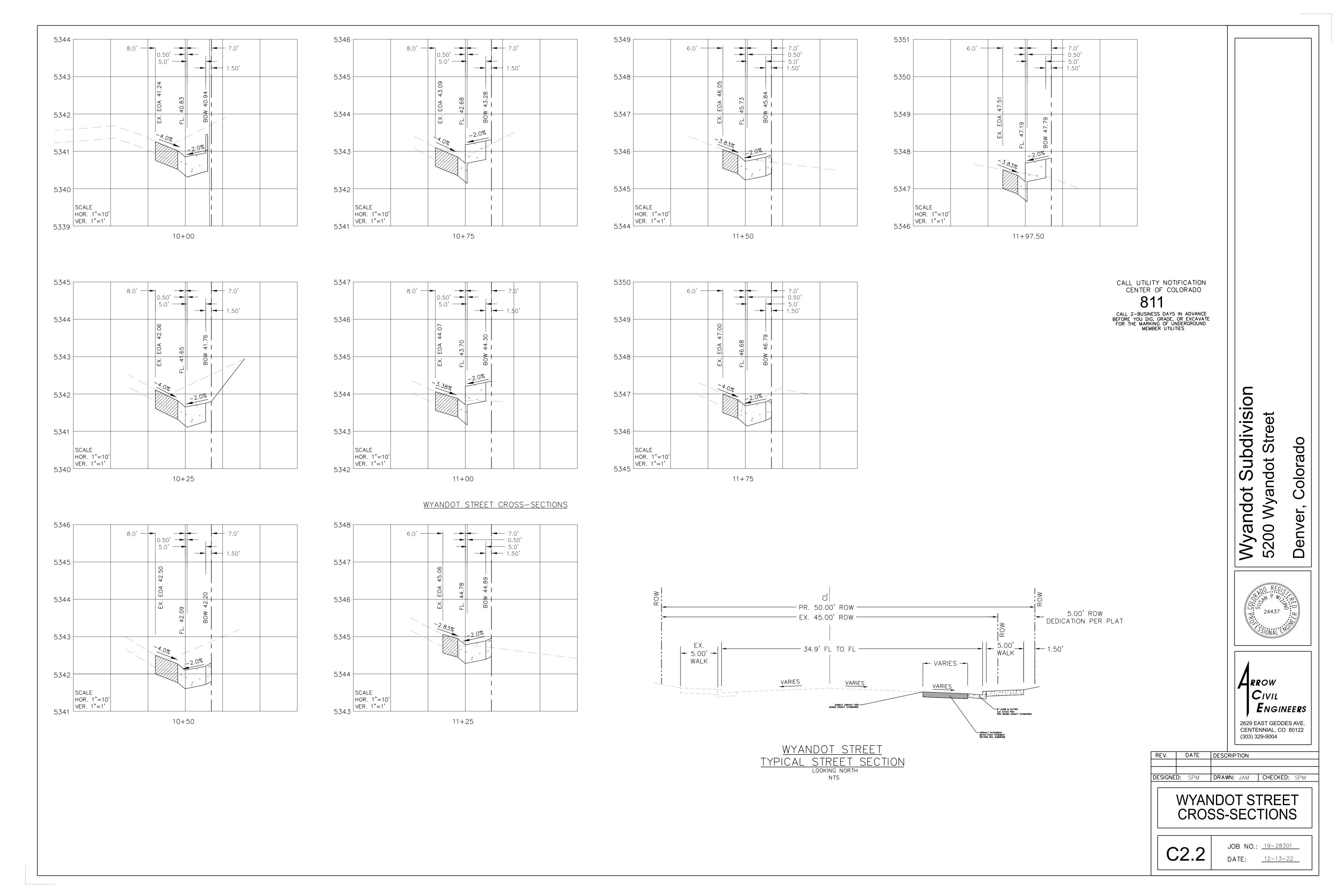


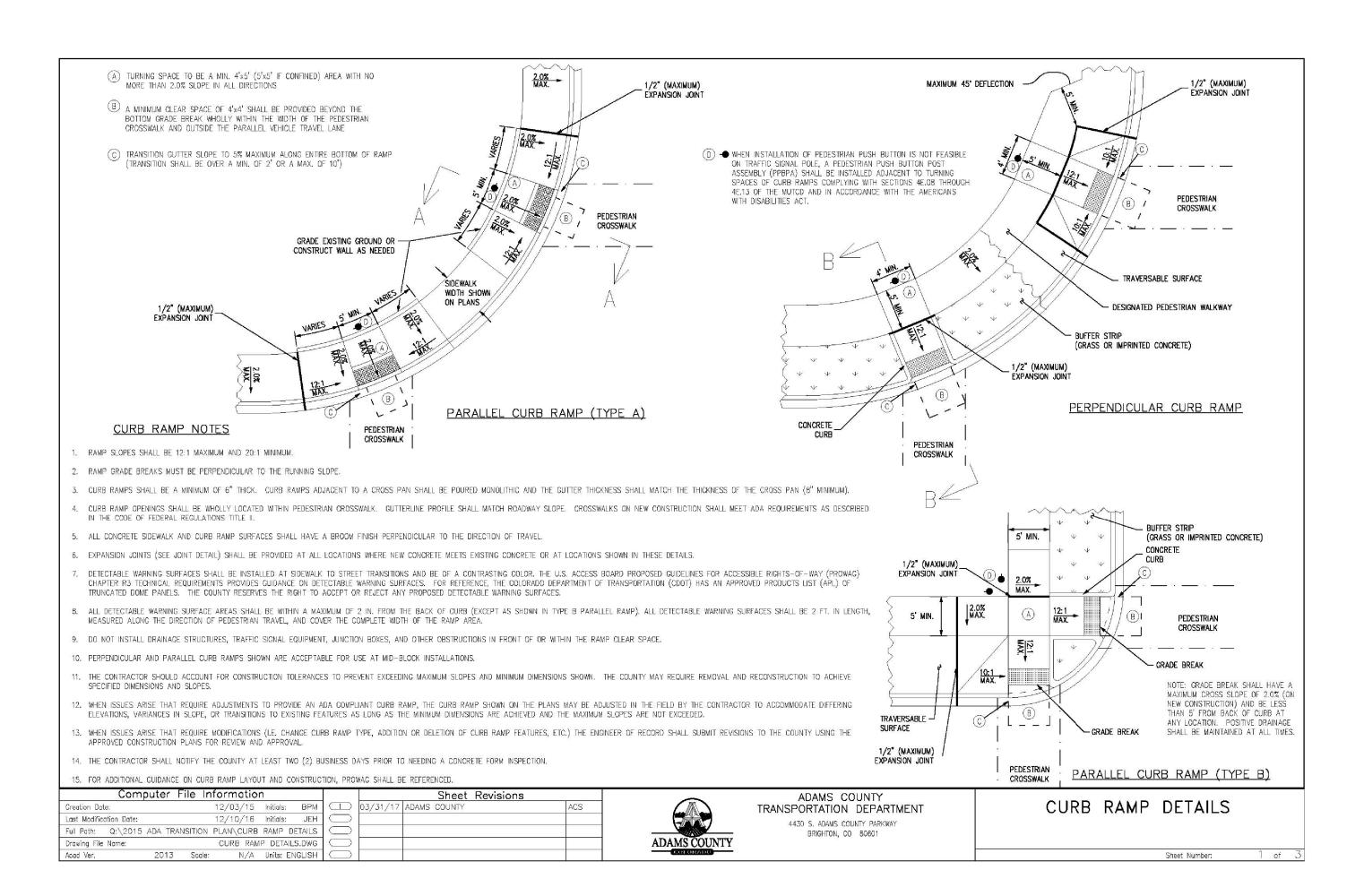
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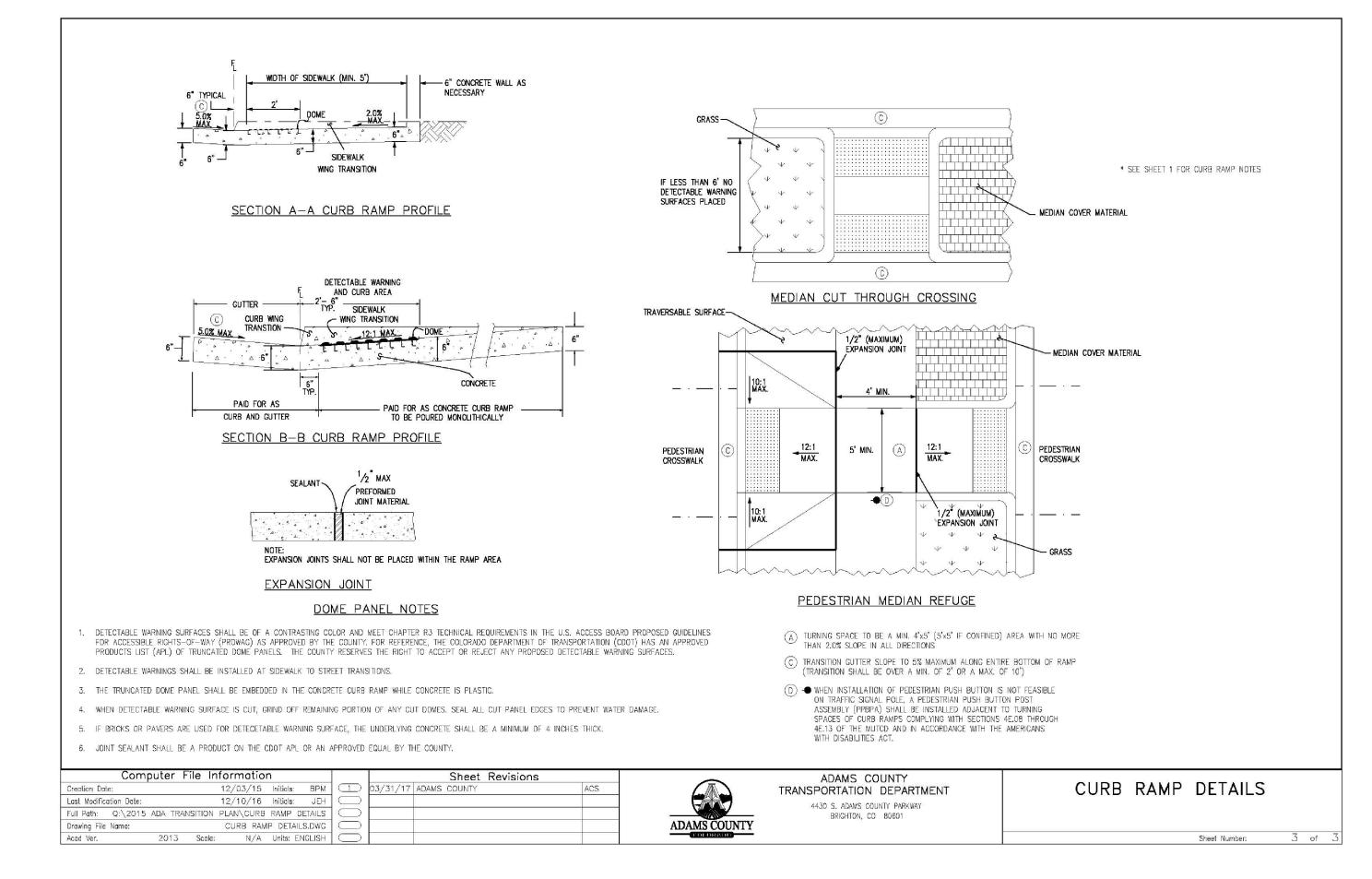
52ND AVE. PROFILE & CROSS-SECTIONS

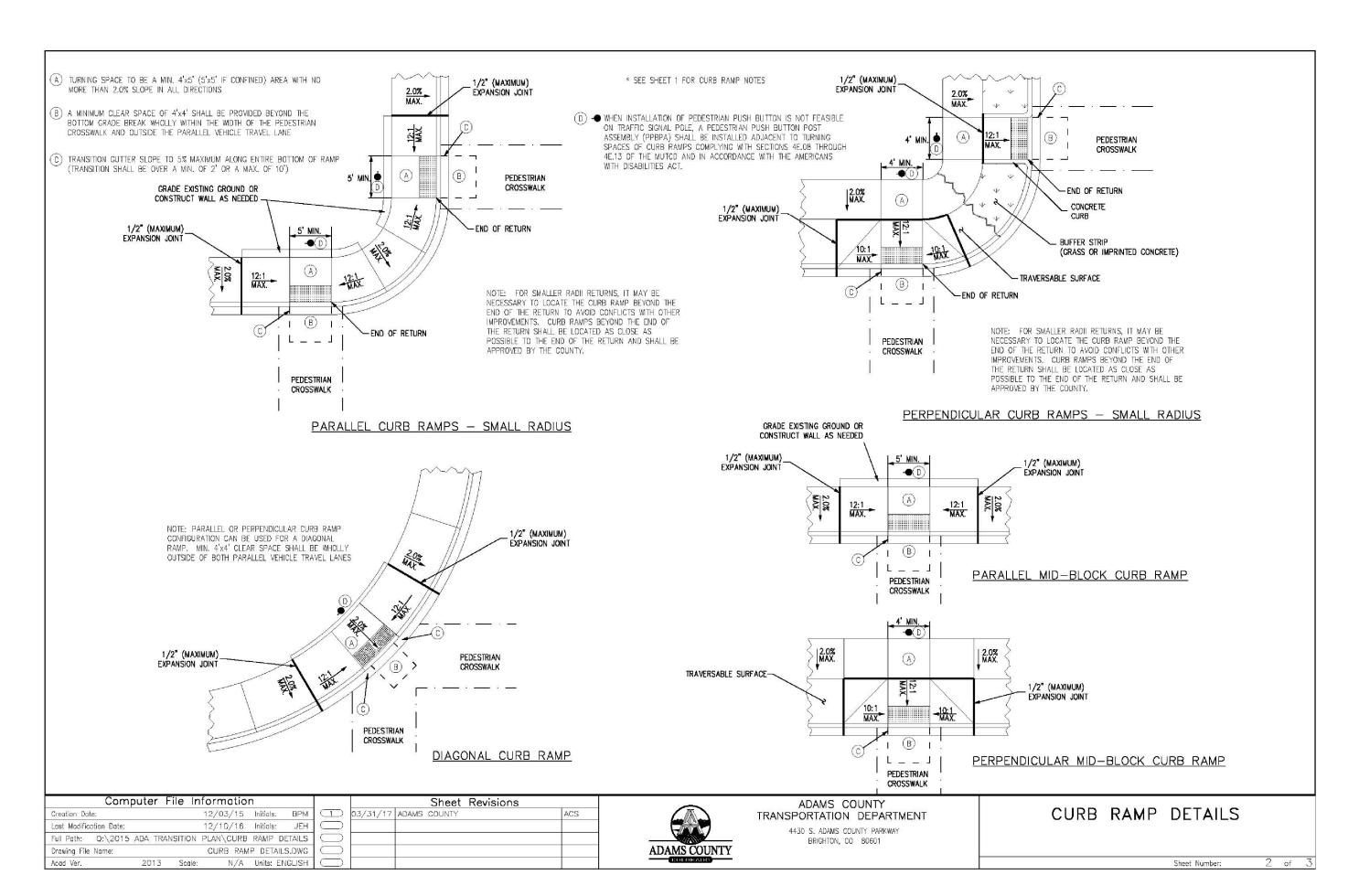
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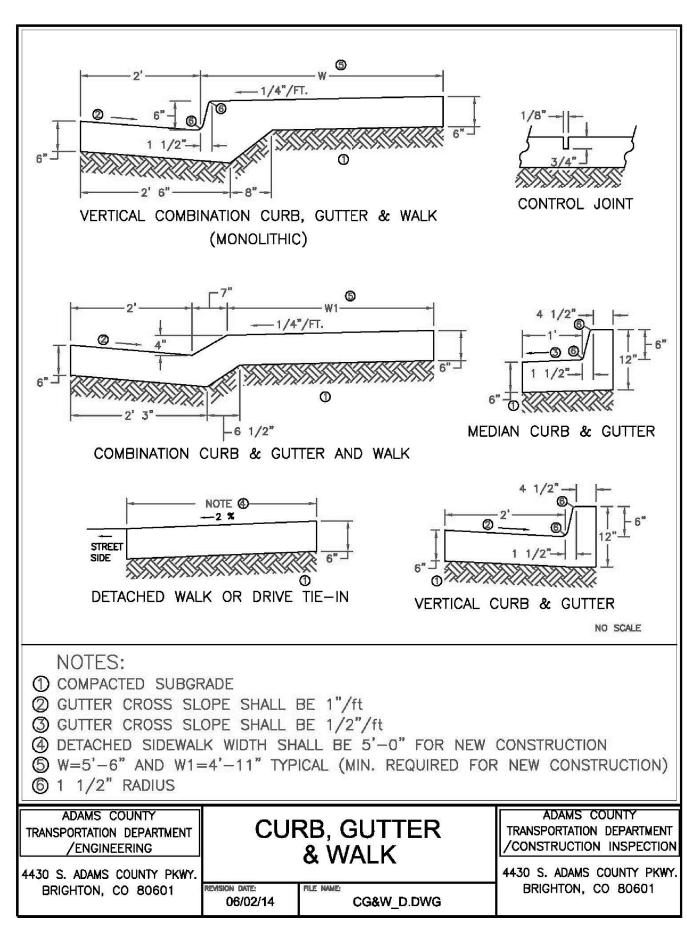
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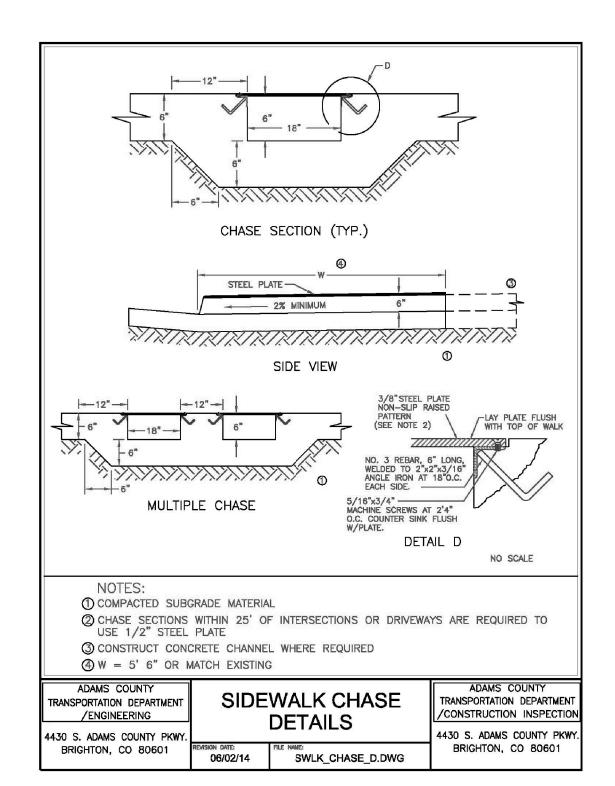


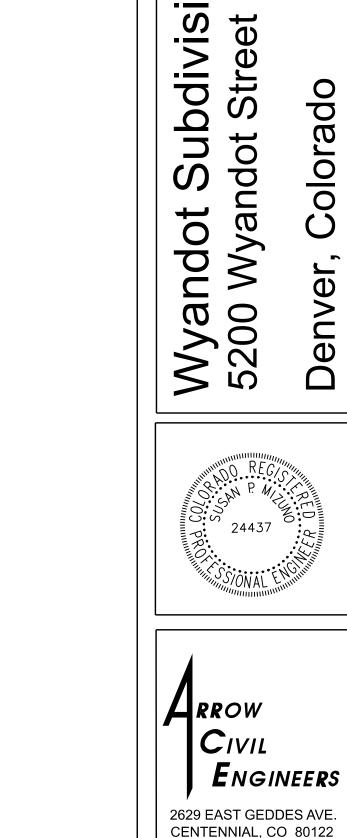












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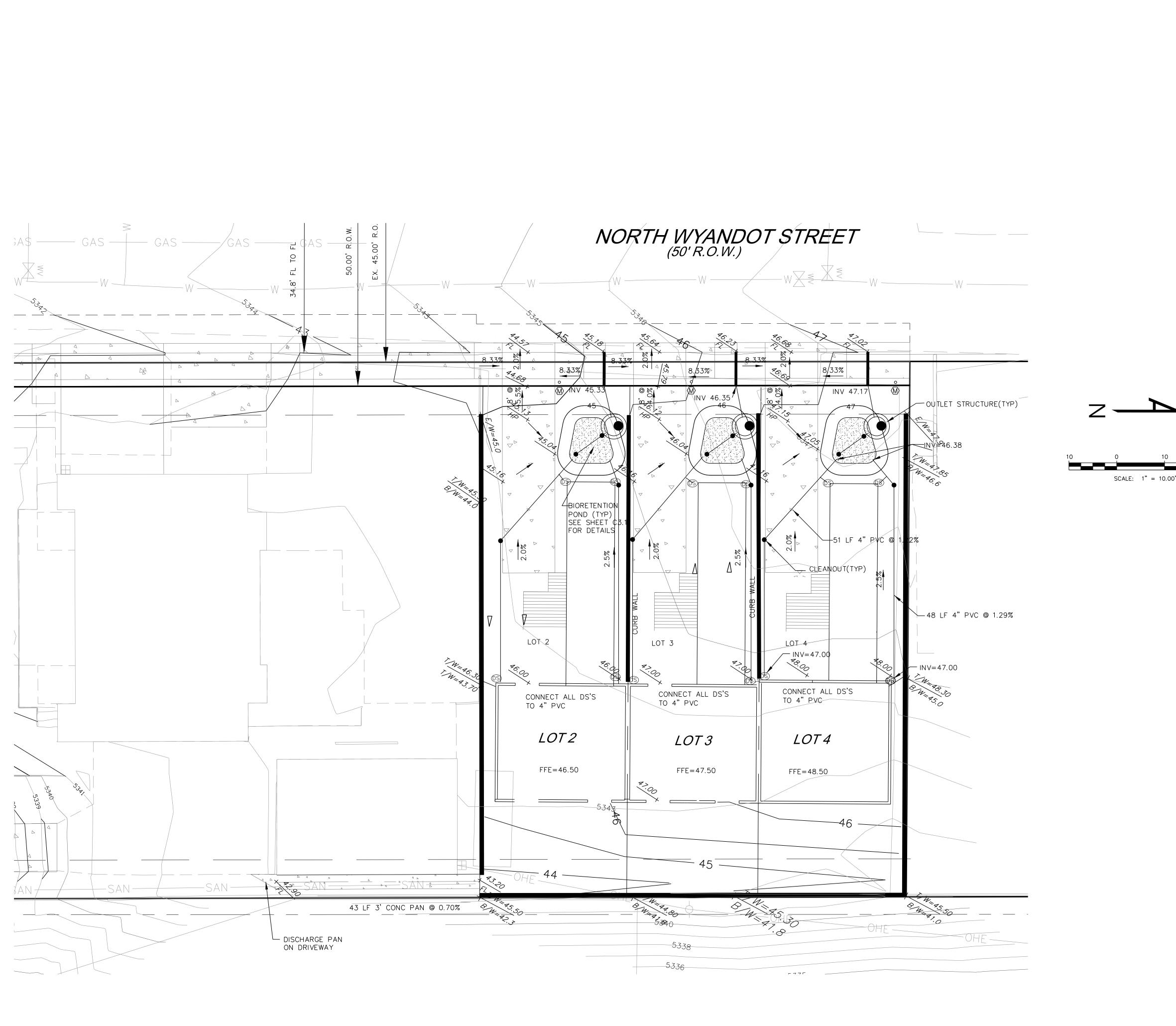
(303) 329-9004

ROADWAY DETAILS

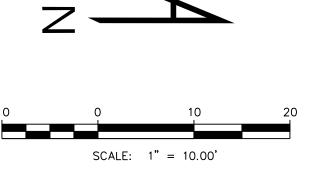
JOB NO.: <u>19-28301</u> C2.3 DATE:

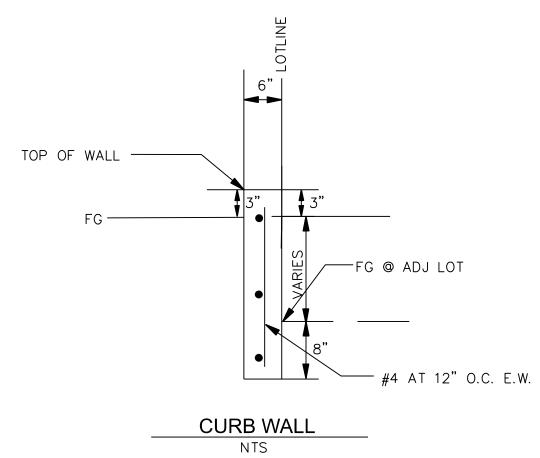
CALL UTILITY NOTIFICATION CENTER OF COLORADO 81 CALL 2-BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND

MEMBER UTILITIES



CALL UTILITY NOTIFICATION CENTER OF COLORADO 811 CALL 2-BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES





Wyandot Subdivision 5200 Wyandot Street

Colorado

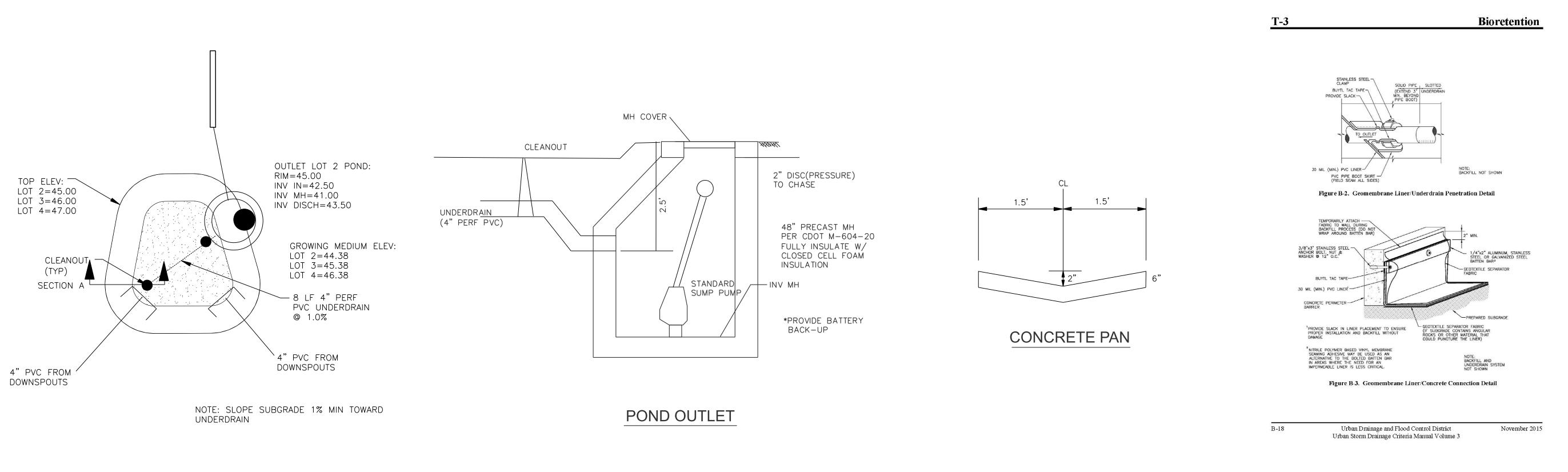
RROW CIVIL ENGINEERS 2629 EAST GEDDES AVE. CENTENNIAL, CO 80122 (303) 329-9004

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GRADING PLAN

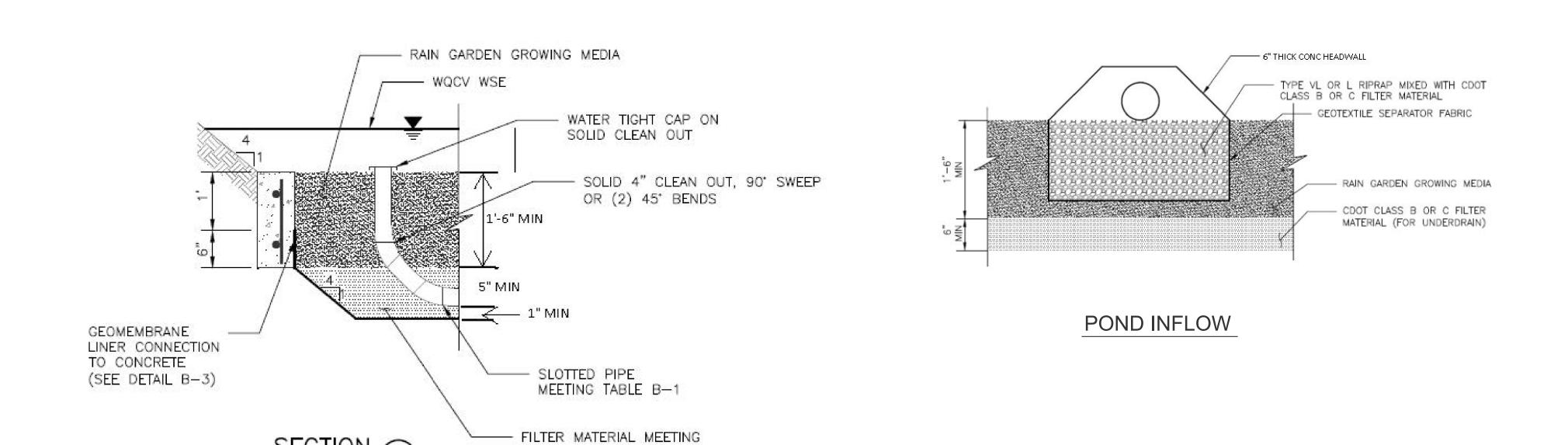
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JOB NO.: <u>19-28301</u> DATE: <u>12–13–22</u>



BIORETENTION POND

TABLE B-1



F. C. C. C.		Specification			Submittals	Testina	Notes
Material	1	Particle size distribution:			Submittals	lesting	Notes
Bioretention Growing Media (soil + organics)	Eigretention soil	Earning size distribution: \$8-90% sand (0.05 - 2.0 mm diameter) \$-17% also (0.002-0.5 mm diameter) \$-17% also (0.002 diameter) Chemical stribute and nutrient analysis; pH 68 - 7.5 organic matter < 15%, nitrogen < 15 ppm phosphorus < 15 ppm salimity < 6 mm/hosetm			Particle size distribution and nutrient analysis required.		Percentages are in weight.
	Bioretention organics	3 to 5% shredded mulch (by weight of gr	owing media)				bioretention soil required. Aged 6 months (minimum).
Landscape mulci	h	Shredded hardwood					Aged 6 months (minimum). No weed fabric allowed.
			Mass Percer	nt Passing Square Mesh Sie	y .		
		Sieve Size	Class B	Class C	Particle size distribution required.		
		37.5 mm (1.5")	100				
Underdrain	CDOT filter	19.0 mm (0.75")		100			
aggregate	material (Class B		20-60	60-100			
aggiegate	or C as specified)	1.18 um (No. 16)	10-30				
	300	300 um (No. 50)	0-10	10-30	required.		
		150 um (No. 100)		0-10			
		75 um (No. 200)	0-3	0-3			
Underdrain Pipe		Pipe diameter and type	Maximum slot width (inches)	Minimum open area (per foot)	Required	Pipe must conform to requirements of ASTM designation F949. There shall be no evidence of splitting, cracking, or breaking when the pipe is tested per ASTM test	Contech A-2000 slotted pipe (or equal)
		4-inch slotted PVC	0.032	1.90 in.2		method D2412 in accordance with F949 section 7.5 and ASTM	
		6-inch slotted PVC	0.032	1.98 in.2		F794 section 8.5.	
			Thickness 0.76 mm (30 mil)	Test method			
		Thickness, % Tolerance	+/-5	ASTM D 1593	1	NO. IN STANCE OF BRIDE	
		Tensile strength, kN/m (lb/in)	12.25 [70]	ASTM D8 82, method B	1	Thermal welding required for	
Impermeable line	ar.	Modulus at 100% elongation, kN/m	5.25 (30)	ASTM D8 82, method B	Required	fully lined facilities (not a	
unhairrieanie IIIIe	21.0	Ultimate elongation, %	350	ASTM D8 82, method A	Triedallen	cutain). Leak testing in the field	
		Tear resistance, N(Ibs)	38 (8.5)	ASTM D 1004	1	required.	
		Low temperature impact, * C (* F)	-29 (-20)	ASTM D 1790	1		
		Volatile loss, % maximum	0.7	ASTM D8 82, method A	1		
		Pinholes, no. per 8 m² (no. per 10 yd.²)	1(max)	N/A			
		Bonded seam strength, % of tensile	80	N/A			

T-3	Bioretention

Table B-3. Native seed mix for rain gardens

Common Name	Scientific Name	Variety	PLS ² lbs per Acre	Ounces per Acre
Sand bluestem	Andropogon hallii	Garden	3.5	
Sideoats grama	Bouteloua curtipendula	Butte	3	
Prairie sandreed	Calamovilfa longifolia	Goshen	3	
Indian ricegrass	Oryzopsis hymenoides	Paloma	3	
Switchgrass	Panicum virgatum	Blackwell	4	
Western wheatgrass	Pascopyrum smithii	Ariba	3	
Little bluestem	Schizachyrium scoparium	Patura	3	
Alkali sacaton	Sporobolus airoides		3	
Sand dropseed	Sporobolus cryptandrus		3	
Pasture sage ¹	Artemisia frigida			2
Blue aster ¹	Aster laevis			4
Blanket flower ¹	Gaillardia aristata			8
Prairie coneflower ¹	Ratibida columnifera			4
Purple prairieclover ¹	Dalea (Petalostemum) purpurea			4
Sub-Totals:			27.5	22
Total lbs per acre:			28	8.9

Urban Drainage and Flood Control District

Urban Storm Drainage Criteria Manual Volume 3

November 2015

THE SOUNAL ENGLISH
ARROW CIVIL ENGINEERS

2629 EAST GEDDES AVE. CENTENNIAL, CO 80122

(303) 329-9004

Subdivision

Street

Wyandot Sub 5200 Wyandot § rado

Colo

Denver,

REV.	DATE	DESCRIPTION	
DESIGNE	D: SPM	DRAWN: JAM	CHECKED: SPM

DRAINAGE DETAILS

	JOB NO.:	19-28301
C3.1	DATE:	12-13-22

¹ Wildflower seed (optional) for a more diverse and natural look. ² PLS = Pure Live Seed.

Adams County Erosion Control Plan - General Notes:

- All construction projects, regardless of the size, shall install, maintain and repair stormwater pollution control measures (CMs) to effectively minimize erosion, sediment transport, and the release of pollutants related to construction activity. CMs example include: sediment control logs (SCL), silt fence (SF), dikes/swales, sediment traps (ST), inlet protection (IP), outlet protection (OP), check dams (CD), sediment basins (SB), temporary/permanent seeding and mulching (MU), soil roughening, maintaining existing vegetation and protection of trees. CMs must be selected, designed, adequately sized, installed and maintained in accordance with good engineering, hydrologic and pollution control practices. CMs/BMPs installation and maintenance details shall conform to Urban Drainage Flood Control Criteria Manual Volume 3, or the Colorado Department of Transportation (CDOT) Item Code Book. CMs must filter, settle, contain or strain pollutants from stormwater flows in order to prevent bypass of flows without treatment. CMs must be appropriate to treat the runoff from the amount of disturbed area, the expected flow rate, duration, and flow conditions (i.e., sheet or concentrated flow). CMs/BMPs shall be specified in the SWMP (if applicable), and the locations shown on the EC Plan.
- 1) <u>Prior</u> to construction, projects disturbing 1 or more acres of land, or any project belonging to a common plan of development disturb 1 or more acres, must obtain:
- A General Permit for Stormwater Discharges associated with Construction Activities, from the Colorado Department of Public Health and Environment, and
- An Adams County Stormwater Quality Permit within the unincorporated Adams County MS4 Area.
- 2) Permitted projects shall develop a Stormwater Management Plan (SWMP), aka Erosion and Sediment Control Plan (ESCP), in compliance with CDPHE minimum requirements. The approved SWMP, including Erosion Control (EC) Plan (Site Map), shall be **kept** on site and **updated** at all times. The **Qualified Stormwater Manager** is responsible for implementing the SWMP and CMs (aka BMPs) during construction.
- 3) Permitted projects shall perform regular **Stormwater Inspections** every 7 calendar days; <u>or</u> every 14 calendar days and within 24 hours after any precipitation or snowmelt event that causes surface erosion. Inspection frequency can be reduced for **Post-Storm Event inspections at Temporarily Idle Sites** and also for **Stormwater Inspections at Completed Sites waiting for final stabilization.** Inspection reports must identify any incidents of non-compliance.
- 4) **Tracking** of dirt onto paved public or private paved roads is not allowed. The use of dirt ramps to enter/exit from an unpaved into a paved area is prohibited. Vehicle tracking controls shall be implemented, otherwise entrance area must drain thru a CM towards the private site.
- 5) **Truck loads** of fill material imported to or cut material exported from the site shall be properly covered to prevent loss of the material during transportation on public ROW. Haul routes must be permitted by the County. No material shall be transported to another site without applicable permits.
- 6) Control measures designed for **concrete washout waste** must be implemented. This includes washout waste discharged to the ground and washout waste from concrete trucks and masonry operations.
- 7) Temporary CMs/BMPs shall be removed after the site has reached final stabilization.
- 8) Dewatering operations discharging off-site into any waters conveyance systems including wetlands, irrigation
- ditches, canals, rivers, streams or storm sewer systems, require a State Construction Dewatering Permit.

 9) Permitted projects shall **keep** the CDPHE's Stormwater Discharge Permit, Stormwater Management Plan (SWMP) and inspection logs available on-site throughout the duration of the project, and for an additional 3 years after permit close-out.
- 10) Permitted landowner and/or contractor shall **close** the State and City/County permit once **final stabilization** is reached. Stormwater inspections shall continue until Inactivation Notice is filed with CDPHE.

Performance Standard Notes:

- Stormwater runoff from disturbed areas must flow to at least one (1) CM to minimize sediment in the discharge.
 Do not allow sediment to leave the site. The best way to prevent sediment or pollutants from entering the
 storm sewer system is to stabilize the site as quickly as possible, preventing erosion and stopping sediment runoff at its source.
- 2. Phase construction to minimize disturbed areas, including disturbance of steep slopes. (i.e. the entire project site should not be disturbed if construction will only be occurring in one particular section of the site). Limit soil exposure to the shortest possible period of time. Protect natural features and existing vegetation whenever possible. Removal of existing vegetation shall be limited to the area required for immediate construction operations. Maintain pre-existing vegetation (or equivalent CMs) for areas within 50 horizontal ft of receiving waters.
- 3. **Soil compaction** must be minimized for areas where infiltration CMs will occur or where final stabilization will be achieved through vegetative cover.
- 4. All **soil imported** to or **exported** from the site shall be properly covered to prevent the loss of material during
- transport.

 5. **Dust** emissions resulting from grading activities or wind shall be controlled.
- 6. **Install construction fence** (orange) to protect wetlands and other sensitive areas and to prevent access, and to delineate the Limits of Construction. Do not use silt fence to protect wetlands since trenching may impact these
- 7. CMs intended to capture overland, low velocity **sheet flow** at a fairly level grade shall only be installed along
- 8. Install CMs, such as check dams, perpendicular to the concentrated flows to reduce flow velocity.9. Storm drain inlets within and adjacent to the construction site must be protected. Any ponding of stormwater
- around inlet protection must not cause excessive flooding or damage adjacent areas or structures.

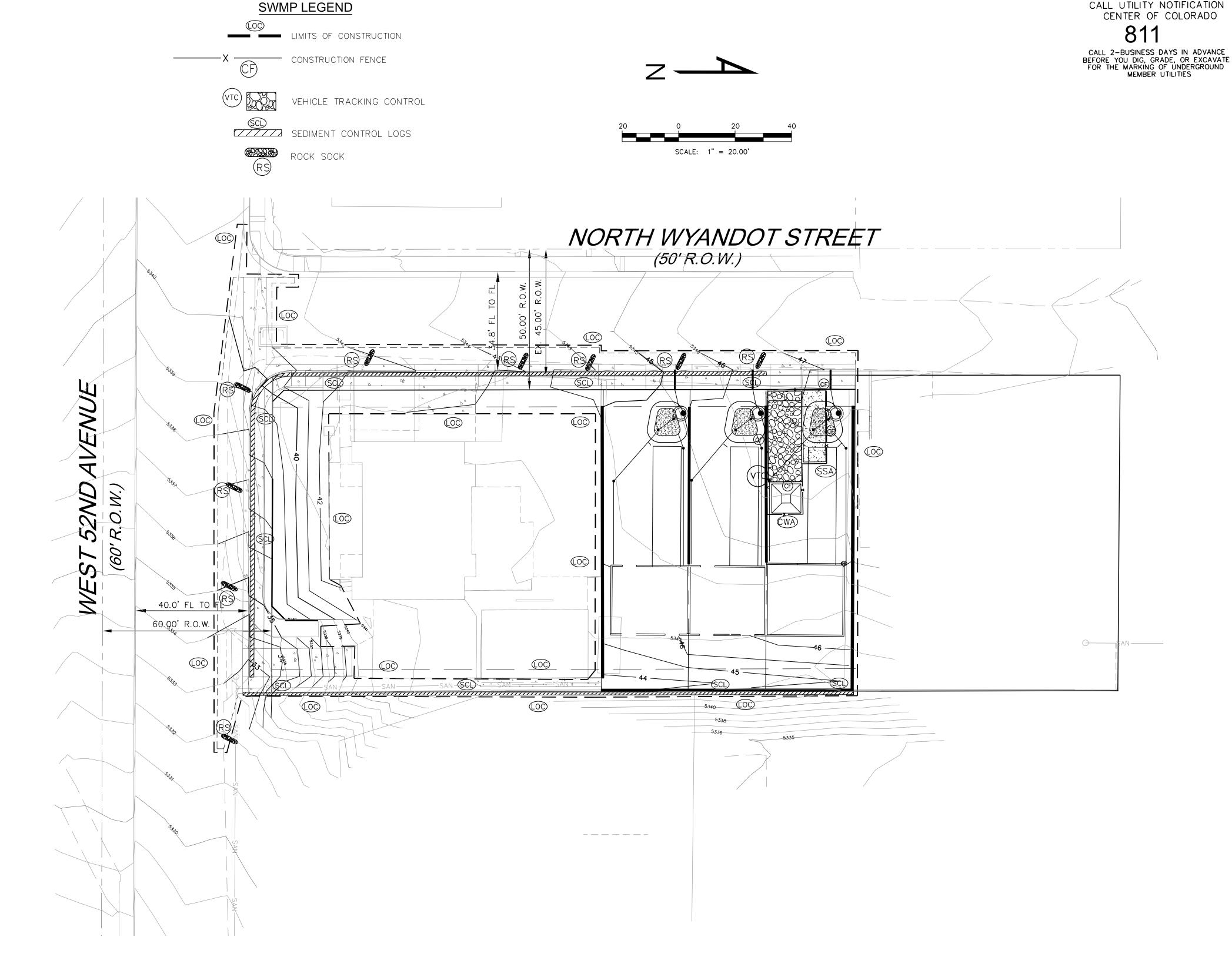
10. Install Vehicle Tracking Control (VTC) to enter/exit unpaved area. Do not use recycled crushed concrete or

- asphalt millings for vehicle tracking pads.

 11. **Straw bales** shall not be used for primary erosion or sediment control (i.e. straw bales may be used for
- reinforcement behind another BMP such as silt fence).
- 12. **Outlets** systems (such as skimmer or perforated riser pipe) shall be installed to withdraw water from or near the surface level when discharging from basins. Water cannot drain from the bottom of the pond.
- 13. **Temporary stabilization** must be implemented for earth disturbing activities on any portion of the site where land disturbing activities have permanently or temporarily ceased (for more than 14 calendar days). Temporary stabilization methods examples: tarps, soil tackifier, and hydroseed. Temporary stabilization requirement may **exceed** the 14-day schedule when either the function of the specific area requires it to remain disturbed, or, physical characteristics of the terrain and climate prevent stabilization as long as the constraints and alternative schedule is documented on the SWMP, and locations are identified on the EC Plan (site map).
- 14. Runoff from **stockpile area** must be controlled. Soils that will be stockpiled for more than 30 days shall be protected from wind and water erosion within 14 days of stockpile construction. Install CMs/BMPs 5 ft away from the toe of the stockpile's slope.
- 15. Water use to clean concrete trucks shall be discharged into a **concrete washout area** (CWA). The predefined containment area must be identified with a sign, and shall allow the liquids to evaporate or dry out. CWA discharges that may reach groundwater must flow through soil that has buffering capacity prior to reaching groundwater. The concrete washout location shall be not be located in an area where shallow groundwater may be present and would result in buffering capacity not being adequate, such as near natural drainages, springs, or wetlands. In this case, a liner underneath is needed for areas with high groundwater levels. CWA shall not be placed in low areas, ditches or adjacent to state waters. Place CWA 50 ft away from state waters.
- 16. **Waste**, such as building materials, workers trash and construction debris, must be properly managed to prevent
- stormwater pollution.

 17. Install **stabilized staging area (SSA)** to store materials, construction trailer, etc.
- 18. If conditions in the field warrant <u>additional</u> CMs/BMPs to the ones originally approved on the SWMP or EC Plan (civil drawing), the landowner or contractor shall implement measures determined necessary, as **directed by the County**.
- 19. Permanent CMs/BMPs for slopes, channels, ditches, or disturbed land area shall be performed immediately after final grading. Consider the use **erosion control blankets** on slopes 3:1 or steeper and areas with **concentrated flows** such as swales, long channels and roadside ditches.
- 20. The discharge of **sanitary waste** into the storm sewer system is prohibited. Portable toilets must be provided, secured and placed on permeable surfaces, away from the curbside, storm inlets and/or drainage ways
- secured and placed on permeable surfaces, away from the curbside, storm inlets and/or drainage ways.

 21. Remove temporary CMs/BMPs once final stabilization is reached, unless otherwise authorized.
- 22. **Final stabilization** must be implemented. Final stabilization is reached when all soil disturbing activities have been completed, and either a uniform vegetative cover has been established with an individual plant density of at least 70% of pre-disturbance levels, or equivalent <u>permanent</u> alternative method has been implemented.
- 23. Provide **spill prevention** and containment measures for construction materials, waste and fuel storage areas. **Bulk storage** (55 gallons or greater) of petroleum products and liquid chemicals must have secondary containment, or equivalent protection, in order to contain spills and to prevent spilled material from entering state waters.
- 24. **Report** spills or releases of chemical, oil, petroleum product, sewage, etc., which may reach the storm sewer or enter state waters within **24-hours** from time of discovery. Guidance available at www.cdphe.state.co.us/emp/spillsandreleased.htm. State of Colorado Spill-line: 1-877-518-5608. Adams County Stormwater Hotline: 720-523-6400; Public Works 303-453-8787 and the Tri-County Health Department at 303-220-9200.



Maintenance Standard Notes:

- 1. Maintain and repair CMs according to approved Erosion Control Plan (civil drawing) to assure they continue performing as originally intended.
- 2 CMs/BMPs requiring maintenance or adjustment shall be **repaired immediately** after observation of the failing
- BMP.

3 CMs shall be cleaned when sediment levels accumulate to half the design unless otherwise specified.

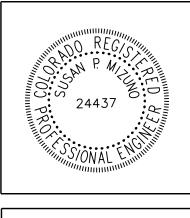
- 4 SWMP and EC plan shall be continuously **updated** to reflect new or revised CMs/BMPs due to changes in design, construction, operation, or maintenance, to accurately reflect the actual field conditions. A notation shall be made in the SWMP, including date of changes in the field, identification of the CMs removed, modified or added, and the locations of those CMs. Updates must be made within 72-hours following the change.
- 5 Maintain **Vehicle Tracking Control (VTC**), if sediment tracking occurs, clean-up immediately. Sweep by hand or the use street sweepers (with vacuum system). Flushing off paved surfaces with water is prohibited.
- 6 **CWA** must be cleaned once waste accumulation reaches ¾ of the wet storage capacity of the structure. Legally disposed of concrete waste. Do not bury on-site.
- 7 Clean-up spills immediately after discovery, or contain until appropriate cleanup methods can be employed. Follow Manufacturer's recommended methods for spill cleanup, along with proper disposal methods. Records of spills, leaks, or overflows that result in discharge of pollutants must be documented and maintained.
- 8 Remove sediment from storm sewer infrastructure (ponds, storm pipes, outlets, inlets, roadside ditches, etc.), and restore volume capacity upon completion of project or prior to initial acceptance of public improvements (if applicable). Do not flush sediment offsite, capture on-site and disposed of at an approved location.

These notes are not intended to be all-inclusive, but to highlight the basic stormwater pollution prevention requirements for construction activities to **comply** with CDPS Stormwater Construction Permit and be in **conformance** with County standards.

Wyandot Subdivisio 5200 Wyandot Street

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(303) 329-9004

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JOB NO.: <u>19-28301</u>

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MEMBER UTILITIES

STABILIZED CONSTRUCTION ENTRANCE/EXIT INSTALLATION NOTES 1. SEE PLAN VIEW FOR EE PLAN VIEW FOR

-LOCATION OF CONSTRUCTION ENTRANCE(S)/EXIT(S).

-TYPE OF CONSTRUCTION ENTRANCE(S)/EXITS(S) (WITH/WITHOUT WHEEL WASH,

2. CONSTRUCTION MAT OR TRM STABILIZED CONSTRUCTION ENTRANCES ARE ONLY TO BE USED ON SHORT DURATION PROJECTS (TYPICALLY RANGING FROM A WEEK TO A MONTH)
WHERE THERE WILL BE LIMITED VEHICULAR ACCESS.

3. A STABILIZED CONSTRUCTION ENTRANCE/EXIT SHALL BE LOCATED AT ALL ACCESS POINTS WHERE VEHICLES ACCESS THE CONSTRUCTION SITE FROM PAVED RIGHT-OF-WAYS. 4. STABILIZED CONSTRUCTION ENTRANCE/EXIT SHALL BE INSTALLED PRIOR TO ANY LAND

5. A NON-WOVEN GEOTEXTILE FABRIC SHALL BE PLACED UNDER THE STABILIZED CONSTRUCTION ENTRANCE/EXIT PRIOR TO THE PLACEMENT OF ROCK. 6. UNLESS OTHERWISE SPECIFIED BY LOCAL JURISDICTION, ROCK SHALL CONSIST OF DOT SECT. #703, AASHTO #3 COARSE AGGREGATE OR 6" (MINUS) ROCK.

STABILIZED CONSTRUCTION ENTRANCE/EXIT MAINTENANCE NOTES 1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.

2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMP8 IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

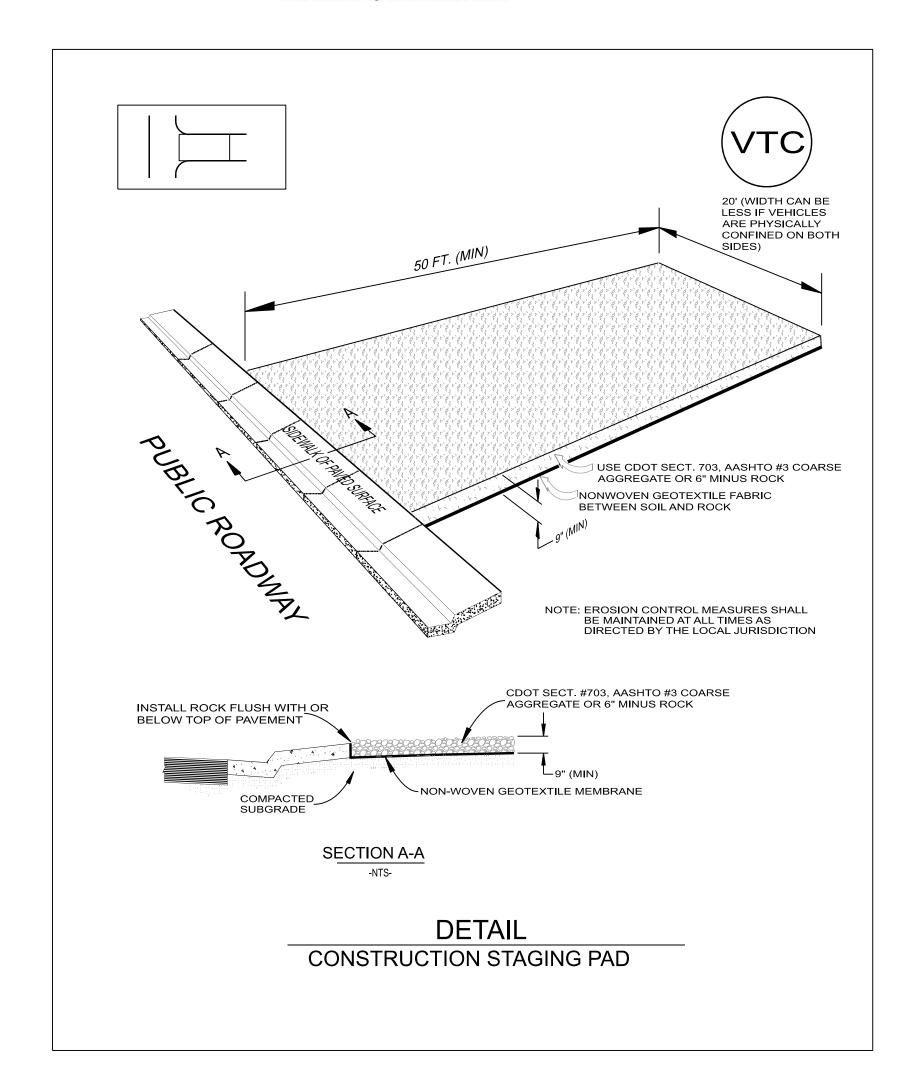
3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

4. ROCK SHALL BE REAPPLIED OR REGRADED AS NECESSARY TO THE STABILIZED ENTRANCE/EXIT TO MAINTAIN A CONSISTENT DEPTH. 5. SEDIMENT TRACKED ONTO PAVED ROADS IS TO BE REMOVED THROUGHOUT THE DAY AND AT THE END OF THE DAY BY SHOVELING OR SWEEPING, SEDIMENT MAY NOT BE WASHED DOWN STORM SEWER DRAINS.

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

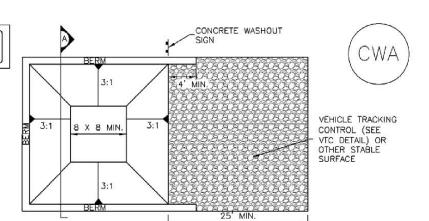
(DETAILS ADAPTED FROM CITY OF BROOMFIELD, COLORADO, NOT AVAILABLE IN AUTOCAD)

Urban Drainage and Flood Control District November 2010 Urban Storm Drainage Criteria Manual Volume 3



Concrete Washout Area (CWA)

MM-1



CONCRETE WASHOUT AREA PLAN COMPACTED BERM AROUND
THE PERIMETER UNDISTURBED OR 1 VEHICLE TRACKING 8 X 8 MIN. SECTION A

CWA-1. CONCRETE WASHOUT AREA CWA INSTALLATION NOTES

SEE PLAN VIEW FOR:
 -CWA INSTALLATION LOCATION.

2. DO NOT LOCATE AN UNLINED CWA WITHIN 400' OF ANY NATURAL DRAINAGE PATHWAY OR WATERBODY, DO NOT LOCATE WITHIN 1,000' OF ANY WELLS OR DRINKING WATER SOURCES. IF SITE CONSTRAINTS MAKE THIS INFEASIBLE, OR IF HIGHLY PERMEABLE SOILS EXIST ON SITE, THE CWA MUST BE INSTALLED WITH AN IMPERMEABLE LINER (16 MIL MIN. THICKNESS) OR SURFACE STORAGE ALTERNATIVES USING PREFABRICATED CONCRETE WASHOUT DEVICES OR A LINED ABOVE GROUND STORAGE ARE SHOULD BE USED.

3. THE CWA SHALL BE INSTALLED PRIOR TO CONCRETE PLACEMENT ON SITE. 4. CWA SHALL INCLUDE A FLAT SUBSURFACE PIT THAT IS AT LEAST 8' BY 8' SLOPES LEADING OUT OF THE SUBSURFACE PIT SHALL BE 3:1 OR FLATTER. THE PIT SHALL BE AT

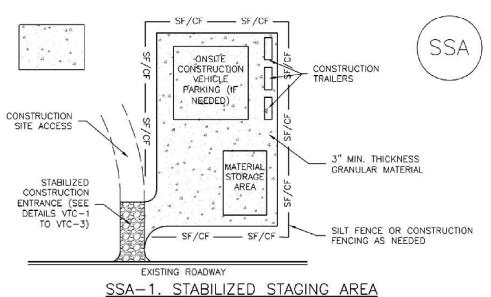
5. BERM SURROUNDING SIDES AND BACK OF THE CWA SHALL HAVE MINIMUM HEIGHT OF 1'. 6. VEHICLE TRACKING PAD SHALL BE SLOPED 2% TOWARDS THE CWA.

7. SIGNS SHALL BE PLACED AT THE CONSTRUCTION ENTRANCE, AT THE CWA, AND ELSEWHERE AS NECESSARY TO CLEARLY INDICATE THE LOCATION OF THE CWA TO OPERATORS OF CONCRETE TRUCKS AND PUMP RIGS. 8. USE EXCAVATED MATERIAL FOR PERIMETER BERM CONSTRUCTION.

Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3

Stabilized Staging Area (SSA)

SM-6



STABILIZED STAGING AREA INSTALLATION NOTES

STABILIZED STAGING AREA MAINTENANCE NOTES

1. SEE PLAN VIEW FOR -LOCATION OF STAGING AREA(S).

-CONTRACTOR MAY ADJUST LOCATION AND SIZE OF STAGING AREA WITH APPROVAL FROM THE LOCAL JURISDICTION.

2. STABILIZED STAGING AREA SHOULD BE APPROPRIATE FOR THE NEEDS OF THE SITE. OVERSIZING RESULTS IN A LARGER AREA TO STABILIZE FOLLOWING CONSTRUCTION.

3. STAGING AREA SHALL BE STABILIZED PRIOR TO OTHER OPERATIONS ON THE SITE. 4. THE STABILIZED STAGING AREA SHALL CONSIST OF A MINIMUM 3" THICK GRANULAR

5. UNLESS OTHERWISE SPECIFIED BY LOCAL JURISDICTION, ROCK SHALL CONSIST OF DOT SECT. #703, AASHTO #3 COARSE AGGREGATE OR 6" (MINUS) ROCK. 6. ADDITIONAL PERIMETER BMPs MAY BE REQUIRED INCLUDING BUT NOT LIMITED TO SILT FENCE AND CONSTRUCTION FENCING.

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.

2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION, INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

Urban Storm Drainage Criteria Manual Volume 3

4. ROCK SHALL BE REAPPLIED OR REGRADED AS NECESSARY IF RUTTING OCCURS OR UNDERLYING SUBGRADE BECOMES EXPOSED.

Urban Drainage and Flood Control District

Concrete Washout Area (CWA)

CWA MAINTENANCE NOTES

MM-1

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.

2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON 4. THE CWA SHALL BE REPAIRED, CLEANED, OR ENLARGED AS NECESSARY TO MAINTAIN CAPACITY FOR CONCRETE WASTE. CONCRETE MATERIALS, ACCUMULATED IN PIT, SHALL BE REMOVED ONCE THE MATERIALS HAVE REACHED A DEPTH OF 2'.

5. CONCRETE WASHOUT WATER, WASTED PIECES OF CONCRETE AND ALL OTHER DEBRIS IN THE SUBSURFACE PIT SHALL BE TRANSPORTED FROM THE JOB SITE IN A WATER-TIGHT CONTAINER AND DISPOSED OF PROPERLY.

6. THE CWA SHALL REMAIN IN PLACE UNTIL ALL CONCRETE FOR THE PROJECT IS PLACED. 7. WHEN THE CWA IS REMOVED, COVER THE DISTURBED AREA WITH TOP SOIL, SEED AND MULCH OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION. (DETAIL ADAPTED FROM DOUGLAS COUNTY, COLORADO AND THE CITY OF PARKER, COLORADO, NOT AVAILABLE IN AUTOCAD). NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

CWA-4

Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3

November 2010

Stabilized Staging Area (SSA) **SM-6**

STABILIZED STAGING AREA MAINTENANCE NOTES

STORAGE, AND UNLOADING/LOADING OPERATIONS. 6. THE STABILIZED STAGING AREA SHALL BE REMOVED AT THE END OF CONSTRUCTION. THE GRANULAR MATERIAL SHALL BE REMOVED OR, IF APPROVED BY THE LOCAL JURISDICTION, USED ON SITE, AND THE AREA COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY LOCAL JURISDICTION.

NOTE: MANY MUNICIPALITIES PROHIBIT THE USE OF RECYCLED CONCRETE AS GRANULAR MATERIAL FOR STABILIZED STAGING AREAS DUE TO DIFFICULTIES WITH RE-ESTABLISHMENT OF VEGETATION IN AREAS WHERE RECYCLED CONCRETE WAS PLACED.

5. STABILIZED STAGING AREA SHALL BE ENLARGED IF NECESSARY TO CONTAIN PARKING,

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

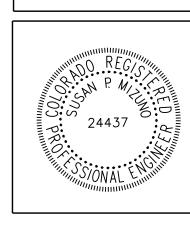
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EROSION CONTROL PLAN DETAILS

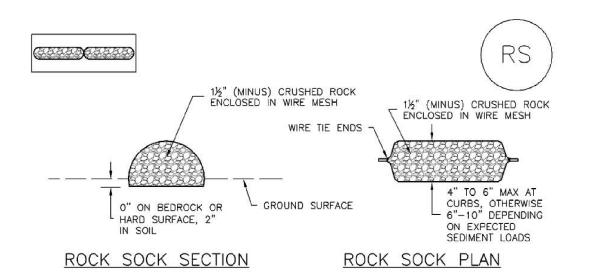
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Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3

SSA-4

MEMBER UTILITIES

CALL UTILITY NOTIFICATION



ANY GAP AT JOINT SHALL BE FILLED WITH AN ADEQUATE AMOUNT OF 1½" (MINUS) CRUSHED ROCK AND WRAPPED WITH ADDITIONAL WIRE MESH SECURED TO ENDS OF ROCK ROCK SOCK, REINFORCED SOCK, AS AN ALTERNATIVE TO FILLING JOINTS BETWEEN ADJOINING ROCK SOCKS WITH CRUSHED ROCK AND ADDITIONAL WIRE WRAPPING, ROCK SOCKS CAN BE OVERLAPPED (TYPICALLY 12-INCH OVERLAP) TO AVOID GAPS. GRADATION TABLE SIEVE SIZE MASS PERCENT PASSING SQUARE MESH SIEVES **ROCK SOCK JOINTING** MATCHES SPECIFICATIONS FOR NO. 4 ROCK SOCK INSTALLATION NOTES

2. CRUSHED ROCK SHALL BE 1½" (MINUS) IN SIZE WITH A FRACTURED FACE (ALL SIDES) AND SHALL COMPLY WITH GRADATION SHOWN ON THIS SHEET (11/2" MINUS). 3. WIRE MESH SHALL BE FABRICATED OF 10 GAGE POULTRY MESH, OR EQUIVALENT, WITH A MAXIMUM OPENING OF ½". RECOMMENDED MINIMUM ROLL WIDTH OF 48" 4. WIRE MESH SHALL BE SECURED USING "HOG RINGS" OR WIRE TIES AT 6" CENTERS ALONG ALL JOINTS AND AT 2" CENTERS ON ENDS OF SOCKS.

5. SOME MUNICIPALITIES MAY ALLOW THE USE OF FILTER FABRIC AS AN ALTERNATIVE TO WIRE RS-1. ROCK SOCK PERIMETER CONTROL

Urban Drainage and Flood Control District RS-2 Urban Storm Drainage Criteria Manual Volume 3

SM-3

CF-2

November 2010

Construction Fence (CF)

SM-3

SC-5

CONSTRUCTION FENCE MAINTENANCE NOTES

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.

2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE

Urban Drainage and Flood Control District

Urban Storm Drainage Criteria Manual Volume 3

3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

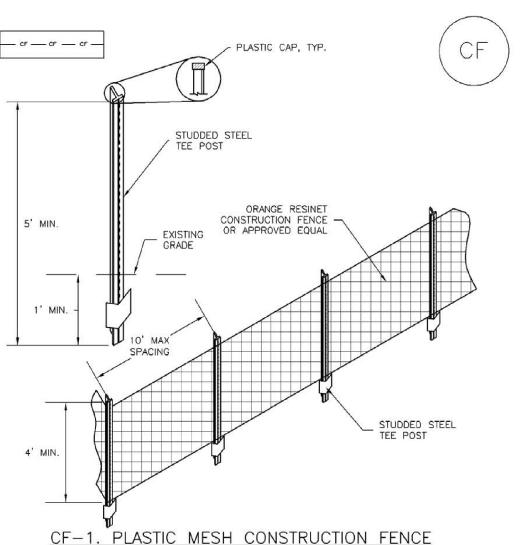
4. CONSTRUCTION FENCE SHALL BE REPAIRED OR REPLACED WHEN THERE ARE SIGNS OF DAMAGE SUCH AS RIPS OR SAGS. CONSTRUCTION FENCE IS TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND APPROVED BY THE LOCAL JURISDICTION. 5. WHEN CONSTRUCTION FENCES ARE REMOVED, ALL DISTURBED AREAS ASSOCIATED WITH THE INSTALLATION, MAINTENANCE, AND/OR REMOVAL OF THE FENCE SHALL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED, OR OTHERWISE STABILIZED AS APPROVED BY LOCAL

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

(DETAIL ADAPTED FROM TOWN OF PARKER, COLORADO, NOT AVAILABLE IN AUTOCAD)

COARSE AGGREGATE FOR CONCRETE 1. SEE PLAN VIEW FOR: PER AASHTO M43. ALL ROCK SHALL BE -LOCATION(S) OF ROCK SOCKS. FRACTURED FACE, ALL SIDES.

Construction Fence (CF)



CONSTRUCTION FENCE INSTALLATION NOTES

SEE PLAN VIEW FOR:
 -LOCATION OF CONSTRUCTION FENCE.

2. CONSTRUCTION FENCE SHOWN SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING 3. CONSTRUCTION FENCE SHALL BE COMPOSED OF ORANGE, CONTRACTOR-GRADE MATERIAL THAT IS AT LEAST 4' HIGH. METAL POSTS SHOULD HAVE A PLASTIC CAP FOR SAFETY. 4. STUDDED STEEL TEE POSTS SHALL BE UTILIZED TO SUPPORT THE CONSTRUCTION FENCE. MAXIMUM SPACING FOR STEEL TEE POSTS SHALL BE 10'.

5. CONSTRUCTION FENCE SHALL BE SECURELY FASTENED TO THE TOP, MIDDLE, AND BOTTOM OF EACH POST.

Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 CF-3

ROCK SOCK MAINTENANCE NOTES

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.

2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON

4. ROCK SOCKS SHALL BE REPLACED IF THEY BECOME HEAVILY SOILED, OR DAMAGED

5. SEDIMENT ACCUMULATED UPSTREAM OF ROCK SOCKS SHALL BE REMOVED AS NEEDED TO MAINTAIN FUNCTIONALITY OF THE BMP, TYPICALLY WHEN DEPTH OF ACCUMULATED SEDIMENTS IS APPROXIMATELY 1/2 OF THE HEIGHT OF THE ROCK SOCK. 6. ROCK SOCKS ARE TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS

STABILIZED AND APPROVED BY THE LOCAL JURISDICTION. 7. WHEN ROCK SOCKS ARE REMOVED, ALL DISTURBED AREAS SHALL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION.

(DETAIL ADAPTED FROM TOWN OF PARKER, COLORADO AND CITY OF AURORA, COLORADO, NOT AVAILABLE IN AUTOCAD) NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN

NOTE: THE DETAILS INCLUDED WITH THIS FACT SHEET SHOW COMMONLY USED, CONVENTIONAL METHODS OF ROCK SOCK INSTALLATION IN THE DENVER METROPOLITAN AREA. THERE ARE MANY OTHER SIMILAR PROPRIETARY PRODUCTS ON THE MARKET, UDFCD NEITHER NDORSES NOR DISCOURAGES USE OF PROPRIETARY PROTECTION PRODUCTS; HOWEVER, IN THE EVENT PROPRIETARY METHODS ARE USED, THE APPROPRIATE DETAIL FROM THE MANUFACTURER MUST BE INCLUDED IN THE SWMP AND THE BMP MUST BE INSTALLED AND MAINTAINED AS SHOWN IN THE MANUFACTURER'S DETAILS.

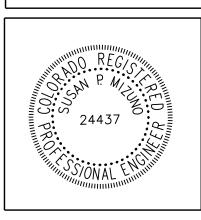
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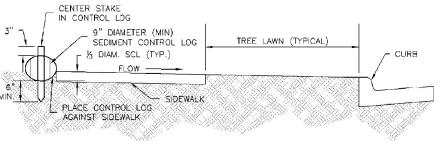
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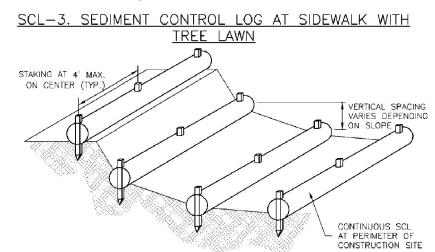
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EROSION CONTROL PLAN DETAILS

JOB NO.: <u>19-28301</u> DATE:

SCL-2. SEDIMENT CONTROL LOG AT BACK OF CURB





SCL-4. SEDIMENT CONTROL LOGS TO CONTROL SLOPE LENGTH

Urban Drainage and Flood Control District

November 2010

Sediment Control Log (SCL)

SEDIMENT CONTROL LOG MAINTENANCE NOTES

SEDIMENT CONTROL LOG INSTALLATION NOTES 1. SEE PLAN VIEW FOR LOCATION AND LENGTH OF SEDIMENT CONTROL LOGS.

2. SEDIMENT CONTROL LOGS THAT ACT AS A PERIMETER CONTROL SHALL BE INSTALLED PRIOR TO ANY UPGRADIENT LAND-DISTURBING ACTIVITIES.

SC-2

SCL-5

SEDIMENT CONTROL LOGS SHALL CONSIST OF STRAW, COMPOST, EXCELSIOR OR COCONUT FIBER, AND SHALL BE FREE OF ANY NOXIOUS WEED SEEDS OR DEFECTS INCLUDING RIPS, HOLES AND OBVIOUS WEAR.

4. SEDIMENT CONTROL LOGS MAY BE USED AS SMALL CHECK DAMS IN DITCHES AND SWALES. HOWEVER, THEY SHOULD NOT BE USED IN PERENNIAL STREAMS OR HIGH VELOCITY DRAINAGE WAYS.

5. IT IS RECOMMENDED THAT SEDIMENT CONTROL LOGS BE TRENCHED INTO THE GROUND TO A DEPTH OF APPROXIMATELY 15 OF THE DIAMETER OF THE LOG. IF TRENCHING TO THIS DEPTH OF APPROXIMATELY 15 OF THE DIAMETER OF THE LOG. IF TRENCHING TO THIS DEPTH IS NOT FEASIBLE AND/OR DESIRABLE (SHORT TERM INSTALLATION WITH DESIRE NOT TO DAMAGE LANDSCAPE) A LESSER TRENCHING DEPTH MAY BE ACCEPTABLE WITH MORE ROBUST STAKING

6. THE UPHILL SIDE OF THE SEDIMENT CONTROL LOG SHALL BE BACKFILLED WITH SOIL THAT IS FREE OF ROCKS AND DEBRIS. THE SOIL SHALL BE TIGHTLY COMPACTED INTO THE SHAPE OF A RIGHT TRIANGLE USING A SHOVEL OR WEIGHTED LAWN ROLLER.

7. FOLLOW MANUFACTURERS' GUIDANCE FOR STAKING. IF MANUFACTURERS' INSTRUCTIONS DO NOT SPECIFY SPACING, STAKES SHALL BE PLACED ON 4' CENTERS AND EMBEDDED A MINIMUM OF 6" INTO THE GROUND. 3" OF THE STAKE SHALL PROTRUDE FROM THE TOP OF THE LOG. STAKES THAT ARE BROKEN PRIOR TO INSTALLATION SHALL BE REPLACED.

INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION.
MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS
POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE
EROSION, AND PERFORM NECESSARY MAINTENANCE.

2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

4. SEDIMENT ACCUMULATED UPSTREAM OF SEDIMENT CONTROL LOG SHALL BE REMOVED AS NEEDED TO MAINTAIN FUNCTIONALITY OF THE BMP, TYPICALLY WHEN DEPTH OF ACCUMULATED

SEDIMENTS IS APPROXIMATELY ½ OF THE HEIGHT OF THE SEDIMENT CONTROL LOG. 5. SEDIMENT CONTROL LOG SHALL BE REMOVED AT THE END OF CONSTRUCTION. IF DISTURBED AREAS EXIST AFTER REMOVAL, THEY SHALL BE COVERED WITH TOP SOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION.

(DETAILS ADAPTED FROM TOWN OF PARKER, COLORADO, JEFFERSON COUNTY, COLORADO, DOUGLAS COUNTY, COLORADO, AND CITY OF AURORA, COLORADO, NOT AVAILABLE IN AUTOCAD)

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

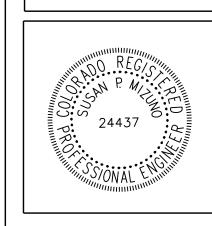
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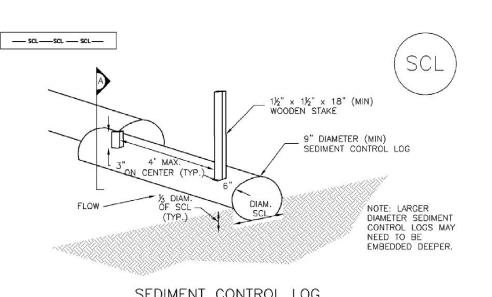


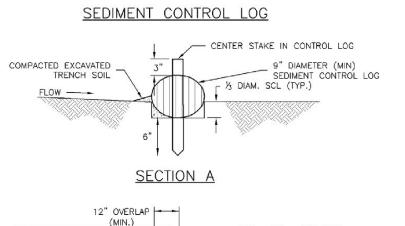
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EROSION CONTROL PLAN DETAILS

C3.5

JOB NO.: 19-28301 DATE: <u>12–13–22</u>





1½" x 1½" x 18" (MIN) _ WOODEN STAKE SEDIMENT CONTROL LOG JOINTS

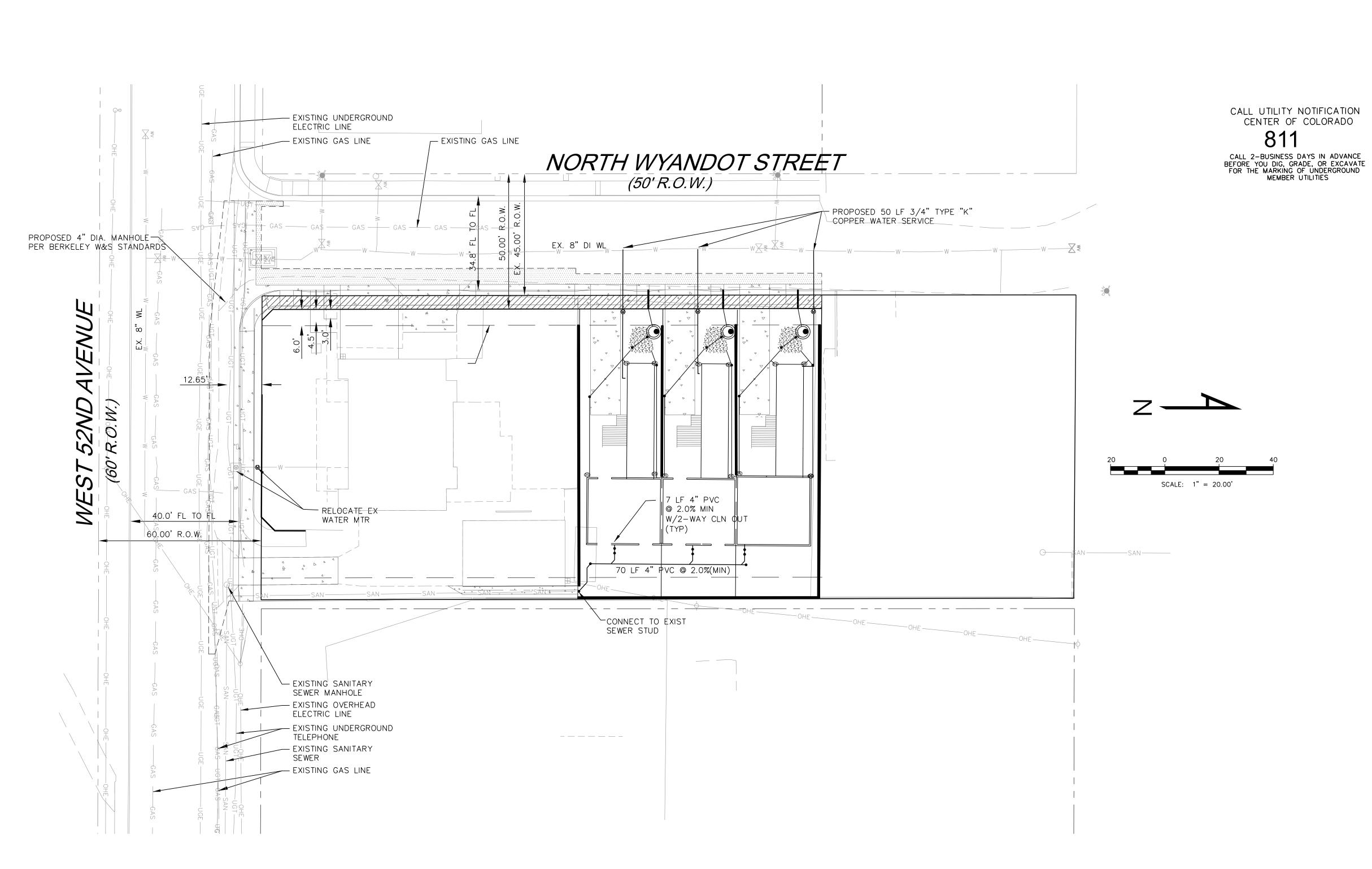
Urban Drainage and Flood Control District

Urban Storm Drainage Criteria Manual Volume 3

SCL-1. SEDIMENT CONTROL LOG

SCL-3

Urban Storm Drainage Criteria Manual Volume 3



Subdivision Wyandot Subdivision 5200 Wyandot Street orado Colc



CIVIL ENGINEERS 2629 EAST GEDDES AVE. CENTENNIAL, CO 80122 (303) 329-9004

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UTILITY PLAN

JOB NO.: <u>19-28301</u>

good workmanlike manner and in substantial compliance with the plans and requirements of this Agreement and shall be substantially free of defects in materials and workmanship. These warranties of Developer shall remain in effect until Preliminary Acceptance of the improvements by the County.

- 6. Guarantee of Compliance. Developer shall furnish to the County a cash escrow deposit or other acceptable collateral, releasable only by the County, to guarantee compliance with this agreement. Said collateral shall be agreed upon by before final plat goes to the Board of county Commissioners. Upon approval of the final plat, completion of said Improvements constructed according to the terms of this Agreement, and Preliminary Acceptance by the Director of Public Works in accordance with section 5-02-05-01 of the County's Development Standards and Regulations, the collateral shall be released. Completion of said Improvements shall be determined solely by the County and a reasonable part of said collateral, up to 20%, may be retained to guarantee maintenance of public Improvements for a period of one year from the date of Preliminary Acceptance.

 No building permits shall be issued: (1) until said collateral is furnished in the amount
- No building permits shall be issued: (1) until said collateral is furnished in the amount required and in a form acceptable to the Board of County Commissioners, (2) until the final plat has been approved, and (3) the Improvements described in Paragraph 7 have been completed. No certificates of occupancy shall be issued until all improvements described in Exhibit "B" have been Preliminarily Accepted by the Department of Public Works.
- 7. Acceptance and Maintenance of Public Improvements. All Improvements designated "public" shall be public facilities and become the property of the County or other public agencies upon acceptance. During the period of one year from and after the acceptance of public improvements, the Developer shall, at its own expense, make all needed repairs or replacement due to defective materials or workmanship which, in the opinion of the County, becomes necessary.
- 8. Successors and Assigns. This agreement shall be binding upon the heirs, executors, personal representatives, successors, and assigns of the Developer, and shall be deemed a covenant running with the real property.
- 9. Improvements and Dedication. The undersigned Developer hereby agrees to provide the following Improvements and to dedicate described property.
- A.The improvements shall be constructed in accordance with all County requirements and specifications in accordance with the approved plans and time schedule agreed upon B. Public dedication of land for right-of-way purposes or other public purpose. Upon approval of this agreement by the Board of County Commissioners, the Developer hereby agrees to convey by warranty deed to the County of Adams the following described land for right-of-way or other public purposes described in plans.
- 10. Default by Developer. A default by the Developer shall exist if: (a) Developer fails to construct the Improvements in substantial compliance with the Plans and the other requirements of this Agreement; (b) Developer fails to complete construction of the Improvements within 2 years of permits being issued; (c)
- Developer fails to cure any noncompliance specified in any written notice of noncompliance within a reasonable time after receipt of the notice of noncompliance; or (d) Developer

otherwise breaches or fails to comply with any obligation of Developer under this Agreement.

A. Remedies of County. If the County, after written notice, determines that a default by Developer exists and if Developer fails to cure such default within the time specified by the County the County shall be entitled to: (a) make a draw on the collateral for the amount reasonably determined by the County to be necessary to cure the default in a manner consistent with the approved Plans up to the face amount of the Collateral; and (b) sue the Developer for recovery of any amount necessary to cure the default over and above the amount available in the Collateral provided.

- B. County Right to Completion of Subdivision Improvements. The right of the County to complete or cause completion of the Improvements as herein provided shall include the following rights:
- a. The County shall have the right to complete the Improvements, in substantial accordance with the plans, the estimated costs, and other requirements of this Agreement, either itself or by contract with a third party or by assignment of its rights to a successor developer who has acquired the Property by purchase, foreclosure, or otherwise.

 b. The County, any contractor under the County, or any such successor developer, their agents, subcontractors and employees shall have the non-exclusive right to enter upon the streets and easements shown on the final plat of the Subdivision and upon any part of the Subdivision owned by Developer for the purpose of completing the Improvements.
- C. Use of Funds by County. Any funds obtained by the County through Collateral, or recovered by the County from Developer by suit or otherwise, shall be used by the County to pay the costs of completion of the Improvements substantially in accordance with the Plans and the other requirements of this Agreement and to pay the reasonable costs and expenses of the County in connection with the default by Developer, including reasonable attorneys' fees.



883 McMurdo Circle Castle Rock, CO 80108 303-329-9004

Susan P. Mizuno, P. E.

December 12, 2022

Mr. Greg Labrie Development Services Adams County 4430 S Adams County Pkwy Brighton, CO 80601-6800

RE: Drainage letter report

PRC2020-00003 5200 Wyandot

ACE Project 19-23801

Dear Mr. Labrie:

This letter report accompanies the resubmittal of the construction plans for the referenced project. Please contact me should you have any questions.

LOCATION

The Wyandot Subdivision consists of a parcel of land located in the southwest quarter of the northwest quarter of Section 16, Township 3 South, Range 68 West of the 6th Principal Meridian, County of Adams, Colorado. The site is located on the east side of Wyandot Street, north of 52nd Avenue.

The site area is a part of the South Platte River Basin, as delineated in the City and County of Denver Storm Drainage Master Plan, dated September 2014 (Basin 0059-01). The South Platte River passes southwest to northeast approximately 2 miles to the east of the site boundary. Other than poorly defined roadside ditches, there are no apparent storm drainage facilities near the site.

DESCRIPTION OF PROPERTY

The site consists of 0.23 acres more or less. A site topographic survey was provided by Huey Surveying, LLC. Based on this survey, and as supported by the USGS quadrangle mapping, the site generally slopes to the east and is split by a ridge line. The northern portion drains to the east by northeast at 3.1 percent and the southern portion drains to the east by southeast at 4.1 percent. The site is currently vacant ground covered in native grass, weeds and some trees. A soils investigation was provided by KC Hamilton Engineering, Inc. for the subject site. Based on this report, the soils present are dense clays and gravel underlain by medium hard to hard sandstone-claystone with layers of weathered claystone to a depth of 35 feet (maximum depth explored). Groundwater was not encountered during initial drilling, but was observed at depths of 17 to 18 feet 10 days after drilling. Based on the NRCS website,

Mr Greg Labrie December 12, 2022 Page Two

the soil maps indicate the soils here are "stoneham loam", 3 to 5 percent slopes. These soils are consistent with the characteristics of hydrologic "Type C/D" soils and were utilized for runoff and detention determination.

As indicated above, this site lies in the South Platte River Basin, which flows from southwest to northeast approximately 2 miles to the east. This site lies near a natural ridge line separating the South Platte River Basin from the Clear Creek Basin to the north. There is no existing FEMA regulatory floodplain near this site. See enclosed FIRM map.

Development of the site will consist of subdividing the 0.23 acres into three lots for a 3-plex structure. Access to the each unit will be off of Wyandot Street. The site will be landscaped and driveways for each unit provided. Water, sewer and drainage improvements will all be part of the site improvements, including water quality facilities for each unit.

There are no irrigation facilities within the development area.

SUB-BASIN DESCRIPTION

The site survey indicates the site lies on a ridge line. The existing drainage pattern for the site is west to east, with each respective sub-basin draining toward the northeast and southeast corners of the site. A steep drop-off, covered in native vegetation, occurs along the east property line.

There is no apparent offsite flow onto the site. Flow from the adjacent site to the north appears to be diverted east and west along the property line to Wyandot.

PROPOSED SITE DRAINAGE

The in accordance with existing drainage patterns, the back yards for this 3 plex will drain to the south to W 52^{nd} Ave via a concrete pan (sized for $2xQ_{100}$). The roofs, driveways, and front yards will flow to a bioretention facility in the front yard. An infiltration study was completed by KC Hamilton. The infiltration rate was somewhat low but the constraints of these small sites resulted in use of a non-infiltration design. The standard design is sized for 12-hour drain time. The underdrains will connect to an outlet structure where the flows will be pumped to the curb flowline of Wyandot Street. Overflow for each bioretention area is directed to the unit's driveway, discharging to Wyandot Street.

CONCLUSION

The drainage design has been completed in accordance with Adams County requirements. Please contact me should you have any questions.

Sincerely,

Susan P. Mizuno, P.E.

Susan P Migun

ARROW CIVIL ENGINEERS

Project Manager



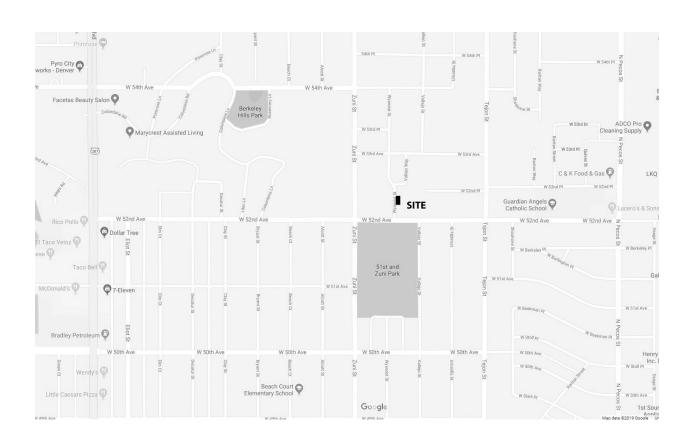


FIGURE 1 LOCATION MAP

Project 19-28301



MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Map Unit Polygons



Soil Map Unit Lines



Soil Map Unit Points

Special Point Features

Blowout



Borrow Pit



Clay Spot



Closed Depression



Gravel Pit



Gravelly Spot



Landfill



Lava Flow

Marsh or swamp



Mine or Quarry



Miscellaneous Water



Perennial Water



Rock Outcrop



Saline Spot



Sandy Spot



Severely Eroded Spot



Sinkhole



Slide or Slip



Sodic Spot



Spoil Area
Stony Spot



Very Stony Spot



Wet Spot Other



Special Line Features

Water Features

~

Streams and Canals

Transportation



Rails



Interstate Highways



US Routes



Major Roads



Local Roads

Background



Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20.000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Adams County Area, Parts of Adams and Denver Counties, Colorado

Survey Area Data: Version 15, Sep 13, 2018

Soil map units are labeled (as space allows) for map scales 1:50.000 or larger.

Date(s) aerial images were photographed: Jun 2, 2014—Aug 21, 2014

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
StD	Stoneham loam, 3 to 5 percent slopes	0.3	100.0%
Totals for Area of Interest		0.3	100.0%

Map Unit Description

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions in this report, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named, soils that are similar to the named components, and some minor components that differ in use and management from the major soils.

Most of the soils similar to the major components have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Some minor components, however, have properties and behavior characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. All the soils of a series have major horizons that are similar in composition, thickness, and arrangement. Soils of a given series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An association is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Additional information about the map units described in this report is available in other soil reports, which give properties of the soils and the limitations, capabilities, and potentials for many uses. Also, the narratives that accompany the soil reports define some of the properties included in the map unit descriptions.

Adams County Area, Parts of Adams and Denver Counties, Colorado

StD—Stoneham loam, 3 to 5 percent slopes

Map Unit Setting

National map unit symbol: 2x0j1 Elevation: 3,500 to 6,500 feet

Mean annual precipitation: 12 to 18 inches

Mean annual air temperature: 46 to 54 degrees F

Frost-free period: 115 to 155 days

Farmland classification: Not prime farmland

Map Unit Composition

Stoneham and similar soils: 85 percent

Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of

the mapunit.

Description of Stoneham

Setting

Landform: Interfluves, low hills

Landform position (two-dimensional): Summit Landform position (three-dimensional): Interfluve

Down-slope shape: Linear Across-slope shape: Linear

Parent material: Mixed alluvial and/or eolian tertiary aged

pedisediment

Typical profile

Ap - 0 to 4 inches: loam
Bt - 4 to 9 inches: clay loam
Btk - 9 to 13 inches: clay loam
Bk1 - 13 to 18 inches: loam
Bk2 - 18 to 34 inches: loam
C - 34 to 80 inches: loam

Properties and qualities

Slope: 3 to 5 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Well drained

Runoff class: Low

Capacity of the most limiting layer to transmit water (Ksat):

Moderately high to high (0.20 to 2.00 in/hr) Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Calcium carbonate, maximum in profile: 12 percent

Salinity, maximum in profile: Nonsaline to very slightly saline (0.1

to 2.0 mmhos/cm)

Sodium adsorption ratio, maximum in profile: 0.5

Available water storage in profile: High (about 9.1 inches)

Interpretive groups

Land capability classification (irrigated): 4e Land capability classification (nonirrigated): 4c

Hydrologic Soil Group: C

Ecological site: Loamy Plains (R067BY002CO)

Hydric soil rating: No

Minor Components

Weld

Percent of map unit: 5 percent

Landform: Interfluves

Landform position (two-dimensional): Summit Landform position (three-dimensional): Interfluve

Down-slope shape: Linear Across-slope shape: Linear

Ecological site: Loamy Plains (R067BY002CO)

Hydric soil rating: No

Kimst

Percent of map unit: 5 percent Landform: Interfluves, low hills

Landform position (two-dimensional): Shoulder, backslope

Landform position (three-dimensional): Side slope

Down-slope shape: Convex Across-slope shape: Convex

Ecological site: Loamy Plains (R067BY002CO)

Hydric soil rating: No

Satanta

Percent of map unit: 5 percent

Landform: Interfluves

Landform position (two-dimensional): Summit Landform position (three-dimensional): Interfluve

Down-slope shape: Linear Across-slope shape: Linear

Ecological site: Loamy Plains (R067BY002CO)

Hydric soil rating: No

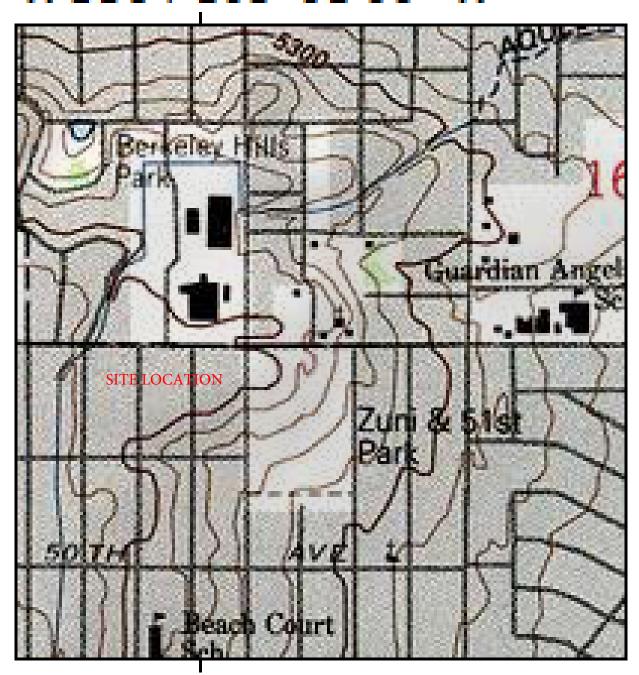
Data Source Information

Soil Survey Area: Adams County Area, Parts of Adams and Denver Counties,

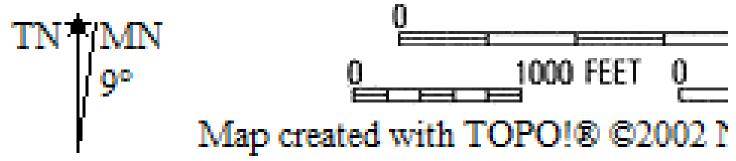
Colorado

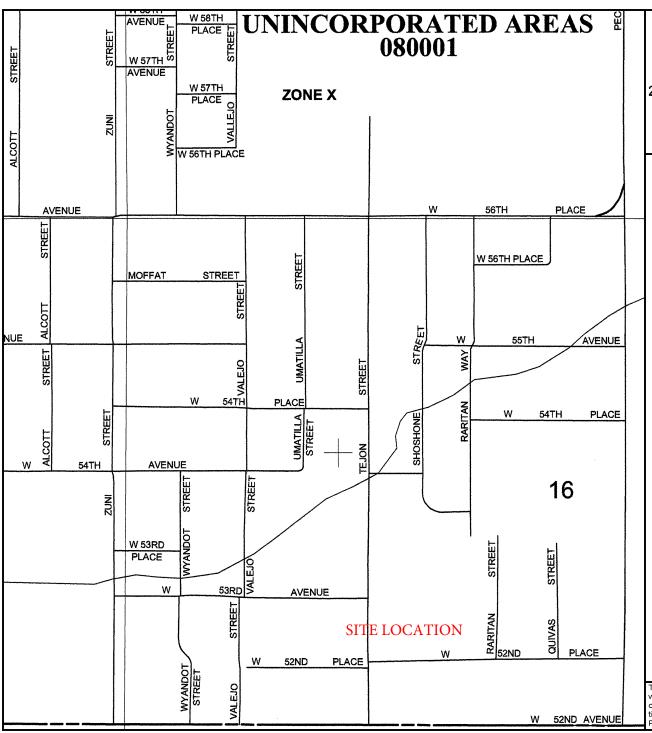
Survey Area Data: Version 15, Sep 13, 2018

on 04/08/19 from "COLORADO.TP(WGS84 105°01'00" W



WGS84 105°01'00" W







MAP SCALE 1" = 500'

250 1000

FIRM

FLOOD INSURANCE RATE MAP

ADAMS COUNTY, **COLORADO**

AND INCORPORATED AREAS

PANEL 592 OF 1150

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY PANEL SUFFIX ADAMS COUNTY

080001

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject



MAP NUMBER 08001C0592H

MAP REVISED **MARCH 5, 2007**

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

Weighted impervious:

concrete	1	430	430
roofs	0.9	1223	1100.7
landscape	0	910	0
trib area		2563	1530.7

effective impervious: 0.59723

wqcv= 0.188189 inches

Vol 40.19398 cu ft

Volume provided:

area avg depth=7.5"

top 171

121 **76 cu ft**

bottom 72

CALCULATION OF A PEAK RUNOFF USING RATIONAL METHOD

Project Title:	52nd and Wyandot
Catchment ID:	flow from yards

I. Catchment Hydrologic Data

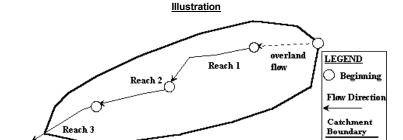


II. Rainfall Information I (inch/hr) = C1 * P1 /(C2 + Td)^C3

Design Storm Return Period, Tr =	100	years	(input return period for design storm)
C1 =	28.50		(input the value of C1)
C2=	10.00		(input the value of C2)
C3=	0.786		(input the value of C3)
P1=	2.60	inches	(input one-hr precipitationsee Sheet "Design Info")

III. Analysis of Flow Time (Time of Concentration) for a Catchment

Runoff Coefficient, C = 0.50
Overide Runoff Coefficient, C = (enter an overide C value if desired, or leave blank to accept calculated C.)
5-yr. Runoff Coefficient, C-5 = 0.15
Overide 5-yr. Runoff Coefficient, C = (enter an overide C-5 value if desired, or leave blank to accept calculated C-5.)



NRCS Land	Heavy	Tillage/	Short	Nearly	Grassed	Paved Areas &
Type	Meadow	Field	Pasture/	Bare	Swales/	Shallow Paved Swales
			Lawns	Ground	Waterways	(Sheet Flow)
Conveyance	2.5	5	7	10	15	20

Calculations:

Reach	Slope	Length	5-yr	NRCS	Flow	Flow
ID	S	L	Runoff	Convey-	Velocity	Time
			Coeff	ance	V	Tf
	ft/ft	ft	C-5		fps	minutes
	input	input	output	input	output	output
Overland			0.15	N/A	0.00	0.00
1						
2						
3						
4						
5						
	Sum	0		Con	nputed Tc =	0.00
	Regional To				egional Tc =	10.00
	User-Entered Tc =					5.00

IV. Peak Runoff Prediction

Rainfall Intensity at Computed Tc, I =	inch/hr	Peak Flowrate, Qp =	cfs
Rainfall Intensity at Regional Tc, I =	inch/hr	Peak Flowrate, Qp =	cfs
Rainfall Intensity at User-Defined Tc, I =	8.82 inch/hr	Peak Flowrate, Qp =	0.18 cfs

yards, Tc and PeakQ 12/5/2022, 4:34 PM



883 McMurdo Circle Castle Rock, CO 80108 303-329-9004

Susan P. Mizuno, P. E.

December 12, 2022

Mr. Greg Labrie Development Services Adams County 4430 S Adams County Pkwy Brighton, CO 80601-6800

RE: Response to comments

PRC2020-00003 5200 Wyandot - 1st Review

ACE Project 19-23801

Dear Mr. Labrie:

This letter accompanies the resubmittal of the construction plans for the referenced project. The plan for the site has changed to a 3 plex, providing bioretention for water quality. Detention is not required due to the change in impervious area is less than 10,000 square feet. The following is our response to comments that are still relevant. (X) refers to comment number in the comment letter:

- 1. (4) Construction by Berkeley Water and Sanitation District has been completed. This proposed construction does not conflict with that work.
- 2. (5) We have added a note to match existing pavement and sub-grade.
- 3. (6) We have removed the Curb Cut detail and redesigned driveways to comply with ADA requirements.
- 4. (7) We have added a note to the cover sheet and the roadway detail sheet addressing requirements per your comment.
- 5. (8) We have noted that the existing water meter needs to be relocated.

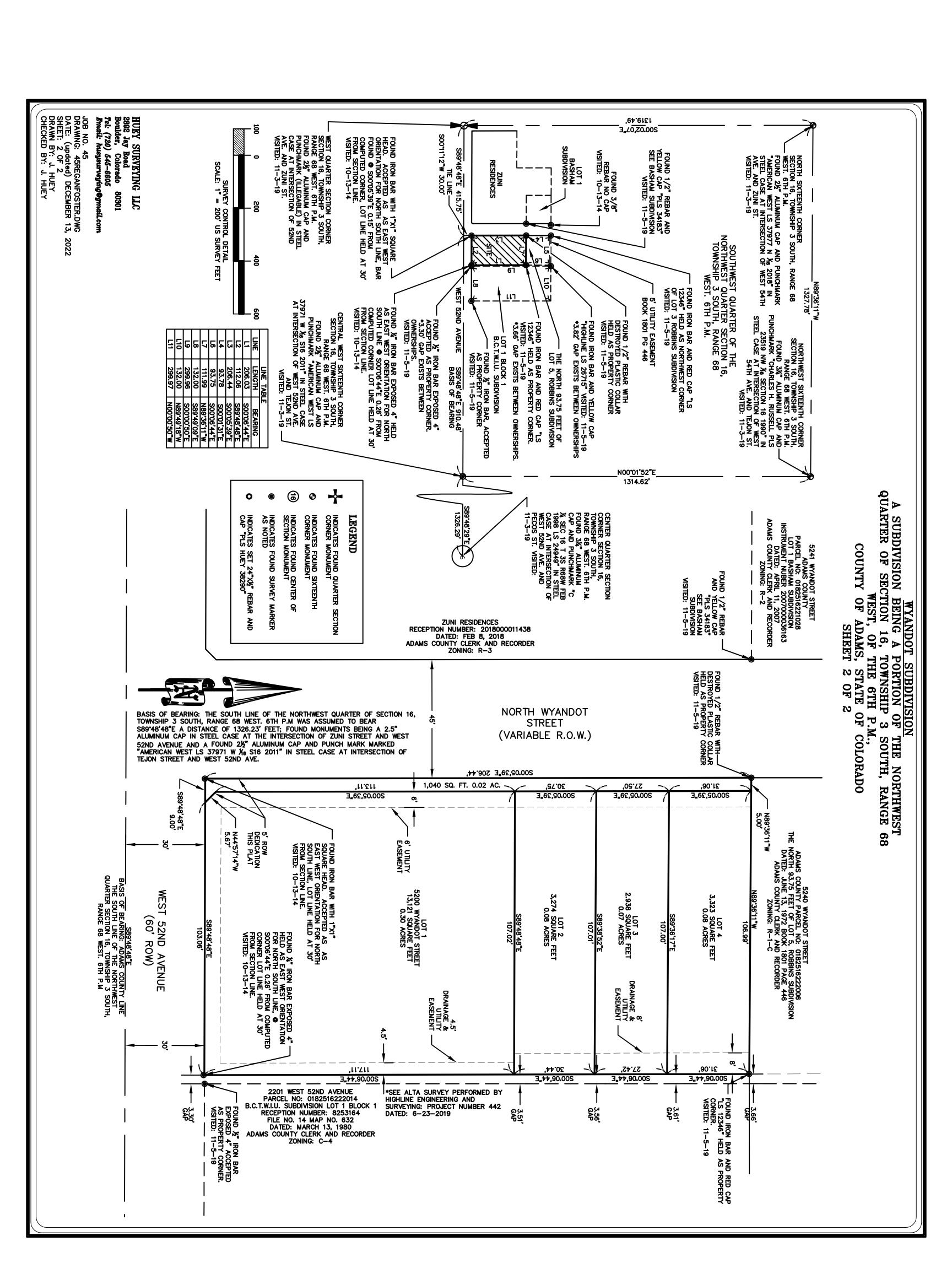
Please contact me should you have any questions.

Sincerely,

Susan P. Mizuno, P.E.

Susan P Migun

Project Manager



	<u>Name/s</u> Developer		
Ву:	Regan Foster Developer and owner		
	oregoing instrument was acknown by	wledged before me this day of	
Му с	ommission expires:		
Addre	ess:		
APPR	OVED BY resolution at the meet	ting of	, 20
impro until :	ovements shall be required in th	ce with this agreement and considered and considered and building pearmount required and in a form accept	ermits shall be issued
ATTE:	ST:	BOARD OF COUNTY COM ADAMS COUNTY, COLO	
Clerk	of the Board	Chair	
Appro	oved as to form		

County Attorney