

### **Planning Commission Meeting**

Date: November 1, 2021

**Submitted By: Elizabeth Young Winne, Planner** 

**Subject:** Site Plan Review – Lot 2B, Block 1, Boxelder Commons

### **EXECUTIVE SUMMARY**

### **Subject:**

• Site Plan Review – Lot 2B, Block 1, Boxelder Commons

### **General Location:**

• Located north of Ziggis Coffee, south of Dollar General on 5<sup>th</sup> Street.

### **Applicant/Agent**:

• Applicant: FR Development

• Agent: Northern Engineering, Shane Ritchie

### **Reason for request:**

• Approve site plan for a multi-tenant commercial building.

### **Background Information:**

- The applicant is seeking an approval for a site plan to create a multitenant commercial building. Tenants are currently unidentified but uses are desired to be 2 restaurants and 1 retail establishment.
- The property is zoned C-3- Highway Commercial zoning district in which restaurants and retail are primary uses.
- The site is just over 2 acres.
- The proposed units are composed of 8,999 square feet of restaurant (including a roof top deck) and 2,595 square feet of retail.

### **BACKGROUND / DISCUSSION**

<u>1. Building Setbacks and dimensional standards</u>: The proposed building does not encroach into required building setbacks. The building meets dimensional standards.

- The building's front is 153.47' and faces west. The building's width is about 62.26'.
- The total building footprint is 9,030 square feet and there is a second-floor rooftop deck that contributes to overall square footage for the uses.
- 2. Easements: Proposed buildings and structures do not encroach into any platted easements.



- 3. Streets and Access: The site is adjacent to 5<sup>th</sup> Street.
  - There is one main access to the site from 5<sup>th</sup> street, across the street from River Birch St. This is a joint access shared by the development and with the Ziggis Coffee establishment.
  - There is an additional access to the site from 5<sup>th</sup> Street, which is a joint access for Ridleys, Dollar General, and can serve as an entrance for this development.
  - There is a recorded joint access agreement between Ridleys and FR for cross- and joint-access (Reception #20210063377).
- <u>4. Pedestrian Connection</u>: Sidewalks are required to connect the site to existing public sidewalks. There are adequate sidewalks around the building footprint, including areas for outdoor patio seating.
  - The sidewalk plan provides safe travel through the parking lot from the public sidewalk to the front entrances to the building.
  - A sidewalk is also proposed to be extended to the north across the remaining undeveloped portion of the lot to ensure safe travel between the current phase and the existing Dollar General site.
  - The site plans include a proposed mid-block crosswalk across Fifth Street onto the site. Crosswalk signs and advanced warning shall be provided in accordance with the current edition of the Manual on Uniform Traffic Control Devices (MUTCD).
  - A concern discussed previously with the applicant and agents is the lack of pedestrian accessibility from the south (near Ziggi's Coffee). The Developer will need to consider pedestrian connectivity upon future development of the site adjacent to Ziggi's Coffee.
  - Existing sidewalks need to be evaluated for condition and any repairs made at the time of site construction. Call outs on the plans identify removal and replacement when applicable.
- 5. Parking: Retail uses are required to provide a minimum of 1 parking space per each 200 sq. ft. of gross floor area. Restaurant use requires a minimum of 1 parking space per 100 sq. ft. of gross floor area. The proposed building is proposed to consist of 2,595 square feet of retail, so 13 parking spaces are required; and proposed to consist of 8,999 sq. ft. of restaurant, so 90 parking spaces are required. 103 total parking spaces are required with this mix, and 80 are provided. The current phase of development needs an additional 23 parking spaces to meet the parking requirements. Considerations to address required parking is identified below:
  - Additional bicycle parking and pedestrian connections to enhance biking and walking to the site was recommended by Town staff and the applicant has provided these elements on the site plan.
  - The applicant has provided a parking analysis and is proposing a shared parking arrangement to benefit multiple sites. A brief explanation is provided below and included in the below charts.
    - The current building proposal is a "core and shell" building (meaning the applicant desires to construct the building and then find tenants to fill available spaces). Because tenants for the spaces are not yet identified, the Applicant has evaluated a "worst case scenario" and has maximized the amount of restaurant square footage for their design and calculations.



- The applicant, FR, owns the remaining lot at this site.
- The **Current Proposal** chart demonstrates there is sufficient parking available if they use some available parking on the remaining undeveloped portion of the site to the north as overflow parking.
- The **Future Building Proposal** is for demonstration purposes only. There is not a current timeline for this project.
- The **Future Building Proposal** chart demonstrates the owner's ability to create a building with a variety of potential uses (as a hypothetical example) with the remaining 41 spaces in the future because 23 are committed to the current proposal. The proposal in the future building chart reinforces the need to create a shared parking agreement with the existing nearby businesses.

CURRENT PROPOSAL	L							
		Re	quired P	arking		Provide	ed .	
On-site	Туре	Stnd	ADA	Total	Stnd	ADA	Total	Net
Proposed Building	Mixed	103	4	107	80	4	84	-23
Future Building(s)*		-	-	0	62	2	64	64
						On	site total	41
		Re	quired P	arking		Provide	ed .	
Off –site**	Туре	Stnd	ADA	Total	Stnd	ADA	Total	Net
Ziggis	Restaurant	18	1	19	19	1	20	1
Dollar General	Retail	46	2	48	57	3	60	12
		•				Off-s	ite Total	13
						Combin	ed Total	54
*Remaining lot at site is	owned by applicant.							

			Requi	ired Parking,	Future Building
	Potential sqft and use	Stnd.	ADA	Total	Calculation used
On-site Off-site**	3,900, restaurant	39	2	41	1 space per 100 sqft
	7,800, retail	39	2	41	1 space per 200 sqft
	5,200, mixed-use	39	2	41	1 space per 250 sqft
	5,200, restaurant	52	2	54	1 space per 100 sqft
	10,400, retail	52	2	54	1 space per 200 sqft
	6,933, mixed-use	52	2	54	1 space per 250 sqft

<sup>\*\*</sup>requires off-site parking agreement with Ziggis and Dollar General (only nets 13 additional spaces) pertains to future building and not necessarily to this project currently under review.

- Staff supports the shared parking analysis and reasoning presented as satisfactory to meet the off-street parking requirement. If the Planning Commission supports this proposal, requirements that should be considered include providing parking lot striping on the overflow parking lot and requiring a cross-lot access and shared parking agreement for all affected lots.
- An updated shared parking analysis with counts and peak times will be required to adequately assess parking requirements for future phases of development.



- *Size*: Parking spaces are required to comply with the minimum width and depth requirement (10 ft. x 20 ft.). The drawing shows parking spaces that comply with the dimensions. Dimension labels should be added to at least one parking space in each bank of parking spaces on the revised plans.
- *Bicycle rack info*: A bicycle rack is identified on the north side of the building (on the landscaping plan) meeting the minimum requirement. The proposed bicycle rack provides 6 bicycle parking spaces, exceeding the minimum requirement. The revised site plans should include the bicycle parking location on the "paving and site plan" sheet.

<u>6. Circulation Aisles</u>: Circulation aisles generally meet the minimum 24-ft. width requirement for two-way traffic circulation.

- The east side of the building has a proposed 21' drive aisle. The reduced width is supported by Wellington Fire Protection District.
- Town staff also supports the reduced width if the drive is marked as a one-way drive with adequate pavement markings and signage in accordance with the current edition of the MUTCD.

<u>7. ADA</u>: ADA Standards for Accessible Design require accessible parking spaces based upon the total number of parking spaces provided on site. When 75-100 parking spaces are provided, a minimum of 4 accessible parking spaces are required and one must be van accessible.

- *Size*: The four ADA spaces appear to meet minimum size requirements and at least one could be considered van accessible. The parking space dimensions are shown on the Details sheet.
- *Location:* The ADA spaces are dispersed throughout the site, two are provided on the west side (front) of the building and two are provided on the south side of the building. This dispersion is appropriate since there are multiple entrances.
- Pathway to building or curbs: There is a flush transition (no curb) to accommodate the accessible spaces on the south side of the building. The accessible spaces on the west side of the building have a ramp to access the building site. The applicant or their agent should evaluate the ADA space arrangement to consider if the accessible route to the building can be changed so the route does not cross behind parking spaces (2010 ADA Standards for Accessible Design 502.3 Advisory).
- Details for signs: All ADA spaces are marked as having signs. The sign height is provided on the Details sheet. Please add details for the stall sizes on the Paving and Site Plan regarding the widths of the spaces.
- On the Paving and Site Plan, the "van accessible" placard is identified. Please identify on the site plan which parking spaces are intended to be van accessible and include the van placard.
- *Details for pavement:* Please ensure pavement marking colors are clearly identified for ADA striping and preformed plastic pavement markings.
- The applicant or their designated agent shall ensure that all accessible parking spaces and routes meet the requirements of ADA standards including locations, widths, aisles, slopes, signage, and pavement markings. Sufficient details should be included and coordinated in the civil engineering and architectural plans, as provided.

<u>8. Signage</u>: There are signs being considered for approval on this site plan. There is a monument sign, as well as future wall sign placements. The signage proposed is a total of 597 square feet. The applicant is requesting



the Planning Commissioners allow a sign square footage that is over the code requirements to best accommodate future tenants needs and create flexibility. The applicant has provided sufficient details for the Planning Commission to consider sizes and locations. Further details for business signs proposed will be submitted under a separate permit at a later time.

- The monument sign is located near the entrance. It is 7 feet tall, curves, and is roughly 26 feet wide. The sign area is 50 square feet.
  - These are the same dimensions of the sign that was previously approved at the site to the north of this location.
  - The monument sign should be pushed outside of the easement as far as possible and shall not impact the site triangle.
  - If the site remains a multi-tenant space, staff would recommend coordinating the monument sign details among tenants in the future.
- The building elevations proposed locations for future wall signs for each potential tenant on multiple faces of the building.
  - On the east side (rear) of the building there is a total of 233 square feet of signage proposed.
  - On the west side (front) of the building there is a total of 240 square feet of signage proposed.
  - On the south side (side) of the building there is a total of 74 square feet of signage proposed.
- Staff supports the overall sign area proposed based on the multiple building elevations, multiple tenants, and the relative proportion to the size and scale of the development.
- Staff requests the ability to review and approve future sign applications administratively subject to the Planning Commissions approval of the overall sign locations and sizes for the site.
- 9. Site Lighting: A photometric plan was provided with the site plans as required.
  - The Town's maximum illumination level at the property line is 0.1 footcandle.
    - The west side of site has illuminations that are shown to be slightly over the 0.1 maximum illumination. This slight increase at these locations is acceptable and preferred to accommodate the desire for sidewalk illumination.
    - The north and south sides have illumination levels perceived to be over .1 footcandle (for the missing area on the north) and is noted as over .1 footcandle along the parking lots and drive aisles.
    - As these areas are parking lots and future commercial development, a minimal amount of light trespass is acceptable.
  - The Town has a minimum illumination level of 1.0 footcandle for parking areas and pedestrian paths.
    - The parking lot entrance is below the minimum illumination. Changing the proposed 1-sided luminaire to a 2-sided luminaire at this location may provide acceptable lighting levels. The



applicant or their lighting contractor should consider this change or propose another alternative. Also evaluate if this light pole is in conflict with a tree.

- There are some dark areas on the east side of the building. Staff suggests additional lighting in these parking areas and particularly around the trash enclosure for safety and security.
- *Monument sign:* There is no documented plan for lighting the monument sign. If an illuminated sign is proposed, consideration should be given to the impact on the overall photometric plan.
- Lighting details: Parking lot light poles are required to be the same height, style and color as existing light poles and luminaries within the commercial development.

10. Landscape/Screening and Buffering: The landscaping plan proposed by the applicant generally satisfies town landscape code requirements. The provided landscaping area includes the drainage easement and floodplain for a total of 38,315 square feet, but the calculations for landscaping are based on 20% requirement (19,837 square feet). The plan meets the intent of the code and in some cases, exceeds the minimum. Staff requests to review and accept revised information when the information identified below is resubmitted.

- The landscape compliance table shows discrepancies between the counts, compliance table, and material specification tables. Please edit as necessary to reflect accurate information; for example, staff counts 45 total trees, but the compliance table states 54 provided and 50 required.
- <u>Street Trees</u>: 1 street tree is required for each 40 linear feet of street frontage for a minimum requirement of 9 trees. 7 Chinkapin Oaks are shown at a 40 ft. spacing along 5<sup>th</sup> Street. To accommodate constraints for the utilities and driveway, the remaining 2 trees have been provided on the site.
- <u>Site Trees</u>: 1 tree is required for each 1,000 sq. ft. of landscaped area. The site tree requirement is based on 19,837 square feet of landscaped area, for a total of 20 trees.
  - 22 site trees are proposed in the Plant Schedule. Staff supports the proposed additional 2 trees on the site to accommodate limitations with the utilities and driveway access for the street trees.
- <u>Shrubs</u>: 1 shrub is required for each 150 sq. ft. of landscaped area. The site is proposed to be calculated at the 19,837 sq. ft. of landscape area, thus 133 shrubs are required. The proposed landscaping plan exceeds the minimum requirement.
  - o The plan includes 92 shrubs and 1,110 grasses and perennials. Perennials are being counted in the "shrub" count because the perennials generally meet the same intent and purpose.
- <u>Parking Lot Trees/Shrubs/Screening</u>: Parking lots are required to provide trees in islands and shrubs for screening and buffering. A sufficient number and species of trees and shrubs are proposed to meet the parking lot island requirements and to adequately screen the parking lots from 5<sup>th</sup> Street.
  - o 1 tree per 20 spaces is required. There are 84 parking spaces so 4 trees would be required. 16 are provided.
- *Light/tree conflict*: Applicant has assessed and made edits for trees that may have been in conflict with parking lot and other lights on site.
- Other:
- *Planter boxes:* There are optional planter boxes shown on the plan set. Staff supports this feature to add interest to the façade and may help keep the outdoor seating cool in hot summer months.
- Sight triangle concerns: Landscaping installed near the entrance needs to be verified that it will not interfere with the vision triangle no visual impediments between 30 inches to 8 ft. (not including trees



which will reach a mature canopy of over 8 ft.). Shrubs proposed will need to be trimmed or replaced with a species not to exceed 30 inches.

- Separate tap: A separate tap and meter are required for outdoor landscape irrigation, these were provided. Location and size of tap shall be coordinated on the civil engineering plans.
- *Potable water/xeric confirmation:* The site uses potable water for landscaping. The landscape architecture firm has confirmed the plants provided have been specifically chosen as water efficient plants, shrubs, and tree options to ensure long term health of plants and financial savings for owner. The applicant or their agent will need to provide calculations for irrigation water demand to determine raw water contributions or fee-in-lieu in accordance with adopted raw water rates.
- There is some turfgrass shown on the plan along 5<sup>th</sup> street. This is intended to tie into the northern site landscaping and is being limited.

11. Drainage: The applicant has provided grading and drainage details on the civil plans and submitted a drainage compliance memo. The comments provided by Town Engineering Division are available to the applicant. Any changes needed required by Engineering must be addressed in the final drainage plan to be accepted by the Town.

### 12. Utilities:

- Town Utilities:
  - There are existing public water and sewer lines to accommodate development of the site.
  - The project is required to provide a grease interceptor in accordance with Town standards. One grease interceptor is identified on the site plan. With two restaurants, two grease interceptors or sufficient capacity to accommodate business needs may be necessary. Additional evaluation can be accomplished at the time building plans for a tenant finish is submitted.
- Other Utilities: The applicant is responsible for coordinating with private companies to ensure that all utilities are installed underground.
- Fire District Review: Wellington Fire Protection District staff reviewed the site plans.
  - A variance has been accepted regarding the reduced width of the east circulation aisle.
  - A letter on the submission has been provided by Wellington Fire Protection District to the applicant.
  - Building plan review and a permit issued by Wellington Fire Protection District is required prior to construction.
- 13. Architectural Design Standards: The proposed building elevations meet the Town's architectural design standards and the site is attractive and visually interesting. There is a mix of materials that are complimentary to adjacent commercial developments. Front windows, awnings, lighting, and variations in roof lines, wall heights and setbacks provide architectural relief and visual interest.
  - *Massing/scale:* The proposed building has appropriate massing and scale related to the expectation for the future site phases and existing adjacent commercial properties.
  - Description of materials: The building is proposed to be finished primarily with architectural metal panels. The metal panels have three finishes including a stucco, wood grain, and metal finish. Standing



seam metal is proposed to be used for the roof. Other materials include stone veneer and brick accents. Materials are consistent with materials approved for adjacent sites.

- Screening of mechanical equipment and rooftop units: All mechanical equipment and rooftop units are required to be screened from view from the public right-of-way. A parapet wall is proposed to screen the rooftop mechanical units. The applicant will need to confirm the rooftop equipment will be adequately screened from view from I-25 and the frontage road.
- *Trash enclosure screening:* An appropriate 6 ft. tall trash enclosure is proposed on the east side of the site. Materials for the enclosure match the building materials as required and are gated appropriately.

### 14. Miscellaneous:

- The land use table in the plan set has different information than the application sheet that was submitted. Please confirm acreage and square footage of the site on the plan set for the record.
- All drawings and plans must be coordinated so there is not differing information on the civil and architectural plans.

15. Corrected Plans: Following Planning Commission approval, the applicant will need to revise the site plan documents to incorporate all corrections or comments, including Town engineering review of the civil plans, and submit revised copies to the Town. Changes on the site plan sheets shall be clouded, and a list of all changes shall be provided, noting which comment each is addressing. 2 full size, 2 half size, and electronic submission of the revised site plans must be submitted to the Town's Planning Department. Building plans will not be reviewed or permits issued until revised site plans are accepted by the Town.

### STAFF RECOMMENDATION

Move to approve the site plan for Lot 2B, Block 1, Boxelder Commons subject to staff report comments and engineering review comments.

### **ATTACHMENTS**

- 1. Location Map
- 2. Site Plan
- 3. Staff Presentation

# Location Map Lot 2B, Block 1, Boxelder Commons



# BOXELDER COMMONS, (LOT 2B, BLOCK 1)

LOT 2B, BLOCK1, BOXELDER COMMONS FILING 4, A PROPOSED TRACT OF LAND LOCATED IN THE NORTHEAST QUARTER OF SECTION 4, TOWNSHIP 8 NORTH, RANGE 68 WEST OF THE 6TH P.M., TOWN OF WELLINGTON, COUNTY OF LARIMER, STATE OF COLORADO

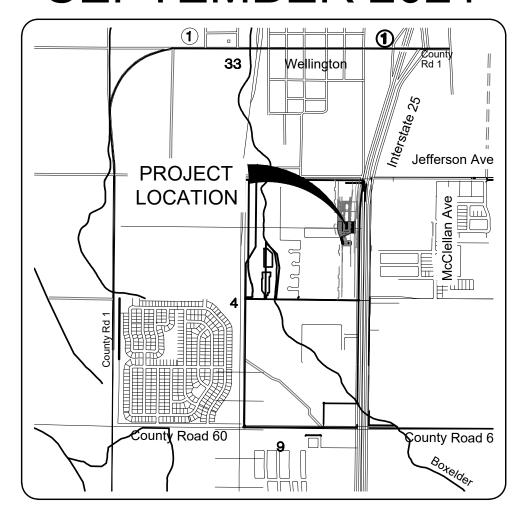
UTILITY CONTACT LIST:

\* This list is provided as a courtesy reference only. Northern Engineering Services assumes no responsibility for the accuracy or completeness of this list. In no way shall this list relinquish the Contractor's responsibility for ocating all utilities prior to commencing any construction activity. Please contact the Utility Notification Center of

UTILITY COMPANY

ELECTRIC----- Xcel Energy-

# SEPTEMBER 2021



SCALE: 1" = 3,000'

LEGAL DESCRIPTION: PROPOSED - LOT 2B, BLOCK 1, BOXELDER COMMONS FILING 4

A PARCEL BEING PROPOSED AS LOT 2B, BLOCK 1, BOXELDER COMMONS FILING 4 AND ALSO BEING A PORTION OF LOT 2, BLOCK 1, BOXELDER COMMONS FILING ONE RECORDED JUNE 28, 2006 AS RECEPTION No. 20060048564 OF THE RECORDS OF LARIMER COUNTY AND SITUATE WITHIN THE NORTHEAST QUARTER (NE<sup>1</sup>/<sub>4</sub>) OF SECTION (4), TOWNSHIP EIGHT NORTH (T.8N.), RANGE SIXTY-EIGHT WEST (R.68W.) OF THE SIXTH PRINCIPAL MERIDIAN (6TH P.M.), TOWN OF WELLINGTON, COUNTY OF LARIMER, STATE OF COLORADO

### **PROPERTY ADDRESS:**

7440 5TH ST, WELLINGTON, CO 80549,

### PROJECT BENCHMARKS:

HORIZONTAL DATUM: COORDDINATE SYSTEM IS A NORTHERN ENGINEERING LOCAL COORDINATE SYSTEM KNOWN INTERNALLY AS "WELL MASTER". LINEAL MEASURE IS BASED ON THE U.S. SURVEY

### VERTICAL DATUM: NAVD88 USING GEOID MODEL GEOID 12A

**BENCHMARK #1:** U.S.G.S BENCH MARK # R-356, 3 1 BRASS CAP IN CONCRETE BASE,

LOCATED 50'± WEST OF THE NW CORNER OF SECTION 34, T9N, R68W. ELEVATION 5229.70 NAVD 88 DATUM

# BENCHMARK #2:

ALUMINUM CAP IN CONCRETE BASE @ NE CORNER OF HWY 1/CR 58, AT THE LARGE CURVE GOING NORTH. Elevation= 5158.71 NAVD 88 DATUM

### CONTROL POINT #1: CP BARN SET 18" OF #4 REBAR WITH ORANGE PLASTIC CAP ELEV: 5173.12

N: 23716.24 E: 19792.74

SET 18" OF #4 REBAR WITH ORANGE PLASTIC CAP ELEV: 5173.93 N: 23734.39 E: 19530.93

CONTROL POINT #2: CP RANCH

**CONTROL POINT #3: CP COTTAGE** SET 18" OF #4 REBAR WITH ORANGE PLASTIC CAP ELEV: 5181.60 N: 24687.66 E:19827.23

CONTROL POINT #4: CP TWO STORY SET 18" OF #4 REBAR WITH ORANGE PLASTIC CAP ELEV:5177.32

## **ORIGINAL FIELD SURVEY BY:**

Northern Engineering Services, Inc. Project No. 958-012 Date: September 9, 2019

N: 24709.20 E:19445.95

### SUBSURFACE EXPLORATION BY:

CTL Thompson, Inc. CTL Project No. WY01709-125 Date: July 8, 2019

# **CONTACT INFORMATION**

### PROJECT TEAM:

PROPERTY OWNER Andrew Rauch

FRBC Corp 125 S. Howes Street, 2nd Floor Fort Collins, CO 80521 (970) 284-3200

SITE ENGINEER

### SURVEYOR Northern Engineering Services, Inc. Aaron M. Lund, PLS Greeley, Colorado 80631



**ARCHITECT** Hauser Architects Kahlil Deerman 3780 East 15th Street, Suite 201 Loveland, Colorado 80538

# LANDSCAPE ARCHITECT

TFG Design, LLC Loveland, Colorado 80537

(970) 448-1115

### **GEOTECHNICAL ENGINEER**

CTL Thompson, Inc. 400 North Link Lane Fort Collins, CO 80524 (970) 206-9455

# SHEET INDEX

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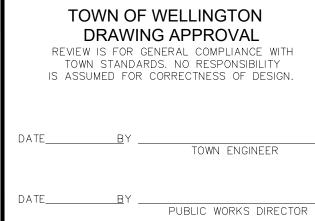
### **DISCLAIMER STATEMENT:**

These plans have been reviewed by the Town of Wellington for concept only. The review does not imply responsibility by the reviewing department, the Town of Wellington Engineer, or the Town of Wellington for accuracy and correctness of the calculations. Furthermore, the review does not imply that quantities of items on the plans are the final quantities required. The review shall not be construed for any reason as acceptance of financial responsibility by the Town of Wellington for additional quantities of items shown that may be required during the construction phase.

### **CERTIFICATION STATEMENT:**

I hereby affirm that these final construction plans were prepared under my direct supervision, in accordance with all applicable Town of Wellington and State of Colorado standards and statutes, respectively; and that I am fully responsible for the accuracy of all design, revisions, and record conditions that I have noted on these plans.





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Water Utility.

- 2. All references to any published standards shall refer to the latest revision of said standard, unless specifically stated otherwise.
- 3. These public improvement construction plans shall be valid for a period of three years from the date of approval by the Town of Wellington Engineer. Use of these plans after the expiration date will require a new review and approval process by the Town of Wellington prior to commencement of any work shown in these plans.
- 4. The engineer who has prepared these plans, by execution and/or seal hereof, does hereby affirm responsibility to the Town of Wellington, as beneficiary of said engineer's work, for any errors and omissions contained in these plans, and approval of these plans by the Town of Wellington Engineer shall not relieve the engineer who has prepared these plans of all such responsibility. Further, to the extent permitted by law, the engineer hereby agrees to hold harmless and indemnify the Town of Wellington, and its officers and employees, from and against all liabilities, claims, and demands which may arise from any errors and omissions contained in these plans.
- 5. All sanitary sewer, storm sewer, and water line construction, as well as power and other "dry" utility installations, shall conform to the Town of Wellington standards and specifications current at the date of approval of the plans by the Town of Wellington Engineer.
- 6. The type, size, location and number of all known underground utilities are approximate when shown on the drawings. It shall be the responsibility of the Developer to verify the existence and location of all underground utilities along the route of the work before commencing new construction. The Developer shall be responsible for unknown underground utilities.
- 7. The Developer shall contact the Utility Notification Center of Colorado (UNCC) at 1-800-922-1987, at least 2 working days prior to beginning excavation or grading, to have all registered utility locations marked. Other unregistered utility entities (i.e. ditch / irrigation company) are to be located by contacting the respective representative. Utility service laterals are also to be located prior to beginning excavation or grading. It shall be the responsibility of the Developer to relocate all existing utilities that conflict with the proposed improvements shown on these
- 8. The Developer shall be responsible for protecting all utilities during construction and for coordinating with the appropriate utility company for any utility crossings required.
- 9. If a conflict exists between existing and proposed utilities and/or a design modification is required, the Developer shall coordinate with the engineer to modify the design. Design modification(s) must be approved by the Town of Wellington prior to beginning construction.
- 10. The Developer shall coordinate and cooperate with the Town of Wellington, and all utility companies involved, to assure that the work is accomplished in a timely fashion and with a minimum disruption of service. The Developer shall be responsible for contacting, in advance, all parties affected by any disruption of any utility service as well as the utility companies.
- 11. No work may commence within any public storm water, sanitary sewer or potable water system until the Developer notifies the utility provider. Notification shall be a minimum of 2 working days prior to commencement of any work. At the discretion of the water utility provider, a pre-construction meeting may be required prior to commencement of any work.
- 12. The Developer 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 the water lines and dry utilities.
- 13. The minimum cover over water lines is 4.5 feet and the maximum cover is 5.5 feet unless otherwise noted in the plans and approved by the
- 14. A State Construction Dewatering Wastewater Discharge Permit is required if dewatering is required in order to install utilities or if water is discharged into a storm sewer, channel, irrigation ditch or any waters of the United States.
- 15. The Developer shall comply with all terms and conditions of the Colorado Permit for Storm Water Discharge (Contact Colorado Department
- of Health, Water Quality Control Division, (303) 692-3590), the Storm Water Management Plan, and the Erosion Control Plan.
- 16. The Town of Wellington shall not be responsible for the maintenance of storm drainage facilities located on private property. Maintenance of onsite drainage facilities shall be the responsibility of the property owner(s).
- 17. Prior to final inspection and acceptance by the Town of Wellington, certification of the drainage facilities, by a registered engineer, must be submitted to and approved by the Town of Wellington. Certification shall be submitted to the Town of Wellington at least two weeks prior to the release of a certificate of occupancy for single family units. For commercial properties, certification shall be submitted to the Town of Wellington at least two weeks prior to the release of any building permits in excess of those allowed prior to certification per the Development Agreement.
- 18. The Town of Wellington shall not be responsible for any damages or injuries sustained in this Development as a result of groundwater seepage, whether resulting from groundwater flooding, structural damage or other damage unless such damage or injuries are sustained as a result of the Town of Wellington failure to properly maintain its water, wastewater, and/or storm drainage facilities in the development.
- 19. All recommendations of the FINAL DRAINAGE MEMO, DATED SEPTEMBER 10TH, 2021 by Northern Engineering Services, Inc., shall be followed and implemented.
- 20. Temporary erosion control during construction shall be provided as shown on the Erosion Control Plan. All erosion control measures shall be maintained in good repair by the Developer, until such time as the entire disturbed areas is stabilized with hard surface or landscaping.
- 21. The Developer shall be responsible for insuring that no mud or debris shall be tracked onto the existing public street system. Mud and debris must be removed within 24 hours by an appropriate mechanical method (i.e. machine broom sweep, light duty front-end loader, etc.) or as approved by the the Town of Wellington street inspector.
- 22. No work may commence within any improved or unimproved public Right-of-Way until a Right-of-Way Permit or Development Construction Permit is obtained, if applicable.
- 23. The Developer shall be responsible for obtaining all necessary permits for all applicable agencies prior to commencement of construction. The Developer shall notify the the Town of Wellington Inspector (970-568-3381) and the Town of Wellington Erosion Control Inspector (970-568-3381) at least 2 working days prior to the start of any earth disturbing activity, or construction on any and all public improvements. If the Town of Wellington Engineer is not available after proper notice of construction activity has been provided, the Developer may commence work in the Engineer's absence. However, the Town of Wellington reserves the right not to accept the improvement if subsequent testing reveals an improper installation.
- 24. The Developer shall be responsible for obtaining soils tests within the Public Right-of-Way after right of way grading and all utility trench work is complete and prior to the placement of curb, gutter, sidewalk and pavement. If the final soils/pavement design report does not correspond with the results of the original geotechnical report, the Developer shall be responsible for a re-design of the subject pavement section or, the Developer may use the Town of Wellington' default pavement thickness section(s). Regardless of the option used, all final soils/pavement design reports shall be prepared by a licensed Professional Engineer. The final report shall be submitted to the Inspector a minimum of 10 working days prior to placement of base and asphalt. Placement of curb, gutter, sidewalk, base and asphalt shall not occur until the Town of Wellington Engineer approves the final report.
- 25. NA.
- 26. All utility installations within or across the roadbed of new residential roads must be completed prior to the final stages of road construction. For the purposes of these standards, any work except c/g above the subgrade is considered final stage work. All service lines must be stubbed to the property lines and marked so as to reduce the excavation necessary for building connections.
- 27. NA.
- 28. NA.
- 29. NA.
- 30. The Developer shall be responsible for all aspects of safety including, but not limited to, excavation, trenching, shoring, traffic control, and security. Refer to OSHA Publication 2226, Excavating and Trenching.
- 31. The Developer shall submit a Construction Traffic Control Plan, in accordance with MUTCD, to the appropriate Right-of-Way authority. (The the Town of Wellington, Larimer County, Colorado), for approval, prior to any construction activities within, or affecting, the Right-of-Way. The Developer shall be responsible for providing any and all traffic control devices as may be required by the construction activities.
- 32. Prior to the commencement of any construction that will affect traffic signs of any type, the contractor shall contact the Town of Wellington Traffic Operations Department, who will temporarily remove or relocate the sign at no cost to the contractor, however, if the contractor moves the traffic sign then the contractor will be charged for the labor, materials and equipment to reinstall the sign as needed.
- 33. The Developer is responsible for all costs for the initial installation of traffic signing and striping for the Development related to the Development's local street operations. In addition, the Developer is responsible for all costs for traffic signing and striping related to directing traffic access to and from the Development.
- 34. There shall be no site construction activities on Saturdays, unless specifically approved by the Town of Wellington Engineer, and no site construction activities on Sundays or holidays, unless there is prior written approval by the Town of Wellington.
- 35. The Developer 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, or constructed, unless specifically noted otherwise.
- 36. Dimensions for layout and construction are not to be scaled from any drawing. If pertinent dimensions are not shown, contact the Designer
- for clarification, and annotate the dimension on the as-built record drawings.

37. The Developer shall have, onsite at all times, one (1) signed copy of the approved plans, one (1) copy of the appropriate standards and

38. If, during the construction process, conditions are encountered which could indicate a situation that is not identified in the plans or

specifications, and a copy of any permits and extension agreements needed for the job.

specifications, the Developer shall contact the Designer and the Town of Wellington Engineer immediately.

- 39. The Developer shall be responsible for recording as-built information on a set of record drawings kept on the construction site, and available to the Town of Wellington Inspector at all times. Upon completion of the work, the contractor(s) shall submit record drawings to the Town of
- 40. The Designer shall provide, in this location on the plan, the location and description of the nearest survey benchmarks (2) for the project as well as the basis of bearings. The information shall be as follows:
- HORIZONTAL DATUM: COORDDINATE SYSTEM IS A NORTHERN ENGINEERING LOCAL COORDINATE SYSTEM KNOWN INTERNALLY AS "WELL MASTER". LINEAL MEASURE IS BASED ON THE U.S. SURVEY FOOT.
- VERTICAL DATUM: NAVD88 USING GEOID MODEL GEOID 12A

### **BENCHMARK #1:**

U.S.G.S BENCH MARK # R-356, 3  $\frac{1}{4}$ " BRASS CAP IN CONCRETE BASE, LOCATED 50'± WEST OF THE NW CORNER OF SECTION 34. T9N. R68W. ELEVATION 5229.70 NAVD 88 DATUM

ALUMINUM CAP IN CONCRETE BASE @ NE CORNER OF HWY 1/CR 58, AT THE LARGE CURVE GOING NORTH. Elevation= 5158.71 NAVD 88 DATUM

- 41. All stationing is based on centerline of roadways unless otherwise noted.
- 42. Damaged curb, gutter and sidewalk existing prior to construction, as well as existing fences, trees, streets, sidewalks, curbs and gutters, landscaping, structures, and improvements destroyed, damaged or removed due to construction of this project, shall be replaced or restored in like kind at the Developer's expense, unless otherwise indicated on these plans, prior to the acceptance of completed improvements and/or prior to the issuance of the first Certificate of Occupancy.
- 43. When an existing asphalt street must be cut, the street must be restored to a condition equal to or better than its original condition. The existing street condition shall be documented by the Town of Wellington Construction Inspector before any cuts are made. Patching shall be done in accordance with the Town of Wellington Street Repair Standards. The finished patch shall blend in smoothly into the existing surface. All large patches shall be paved with an asphalt lay-down machine. In streets where more than one cut is made, an overlay of the entire street width, including the patched area, may be required. The determination of need for a complete overlay shall be made by the Larimer County Engineer and/or the Town of Wellington Inspector at the time the cuts are made.
- 44. Upon completion of construction, the site shall be cleaned and restored to a condition equal to, or better than, that which existed before construction, or to the grades and condition as required by these plans.
- 45. Standard Handicap ramps are to be constructed at all curb returns and at all "T" intersections.
- 46. After acceptance by the Town of Wellington, public improvements depicted in these plans shall be guaranteed to be free from material and workmanship defects for a minimum period of two years from the date of acceptance.
- 47. The Town of Wellington shall not be responsible for the maintenance of roadway and appurtenant improvements, including storm drainage structures and pipes, for the following private streets: including all pans and storm sewer located on site.
- 48. Approved Variances are listed as follows:
- 49. All sanitary and sewer line construction shall conform to the Town of Wellington Standards at the time of construction
- 50. The size, type and location of all known underground utilities are approximate when shown on these drawings it shall be the responsibility of the contractor to verify the existence of all underground utilities in the area of the work. Before commencing new construction, the contractor shall be responsible for locating all underground utilities and shall be responsible for all unknown underground utilities.
- 51. All disturbed areas, not in a roadway, shall be seeded and mulched as soon as possible using the applicable seed mixture specified and using the Town of fort collins erosion control reference manual for construction sites.
- 52. Water and sewer services shall be extended to a point 1-foot inside the utility easements. See utility plans.
- 53. Place groundwater barriers in the following locations
- a. 10-feet downstream of each manhole for both sanitary and storm sewers. b. Every 400-feet on waterlines.

### **CONSTRUCTION NOTES**

### A. Grading and Erosion Control Notes

- 1. The erosion control inspector must be notified at least twenty-four (24) hours prior to any construction on this site.
- 2. There shall be no earth-disturbing activity outside the limits designated on the accepted plans.
- All required perimeter silt and construction fencing shall be installed prior to any land disturbing activity (stockpiling, stripping, grading, etc). All other required erosion control measures shall be installed at the appropriate time in the construction sequence as indicated in the approved project schedule, construction plans, and erosion control report.
- 4. At all times during construction, the Developer shall be responsible for preventing and controlling on-site erosion including keeping the property sufficiently watered so as to minimize wind blown sediment. The Developer shall also be responsible for installing and maintaining all erosion control facilities shown herein.
- 5. Pre-disturbance vegetation shall be protected and retained wherever possible. Removal or disturbance of existing vegetation shall be limited to the area(s) required for immediate construction operations, and for the shortest practical period of time.
- 6. All soils exposed during land disturbing activity (stripping, grading, utility installations, stockpiling, filling, etc.) shall be kept in a roughened condition by ripping or disking along land contours until mulch, vegetation, or other permanent erosion control BMPs are installed. No soils in areas outside project street rights-of-way shall remain exposed by land disturbing activity for more than thirty (30) days before required temporary or permanent erosion control (e.g. seed/mulch, landscaping, etc.) is installed, unless otherwise approved by the Town/County.
- 7. In order to minimize erosion potential, all temporary (structural) erosion control measures shall:
- a. Be inspected at a minimum of once every two (2) weeks and after each significant storm event and repaired or reconstructed as necessary in order to ensure the continued performance of their intended function. b. Remain in place until such time as all the surrounding disturbed areas are sufficiently stabilized as determined by the erosion control
- c. Be removed after the site has been sufficiently stabilized as determined by the erosion control inspector.
- 8. When temporary erosion control measures are removed, the Developer shall be responsible for the clean up and removal of all sediment and debris from all drainage infrastructure and other public facilities.
- 9. The contractor shall immediately clean up any construction materials inadvertently deposited on existing streets, sidewalks, or other public rights of way, and make sure streets and walkways are cleaned at the end of each working day.
- 10. All retained sediments, particularly those on paved roadway surfaces, shall be removed and disposed of in a manner and location so as not
- to cause their release into any waters of the United States.
- 11. No soil stockpile shall exceed ten (10) feet in height. All soil stockpiles shall be protected from sediment transport by surface roughening, watering, and perimeter silt fencing. Any soil stockpile remaining after thirty (30) days shall be seeded and mulched.
- 12. The stormwater volume capacity of detention ponds will be restored and storm sewer lines will be cleaned upon completion of the project
- and before turning the maintenance over to the Town/County or Homeowners Association (HOA). 13. Town Ordinance and Colorado Discharge Permit System (CDPS) requirements make it unlawful to discharge or allow the discharge of any
- pollutant or contaminated water from construction sites. Pollutants include, but are not limited to discarded building materials, concrete truck washout, chemicals, oil and gas products, litter, and sanitary waste. The developer shall at all times take whatever measures are necessary to assure the proper containment and disposal of pollutants on the site in accordance with any and all applicable local, state, and federal regulations.
- 14. A designated area shall be provided on site for concrete truck chute washout. The area shall be constructed so as to contain washout material and located at least fifty (50) feet away from any waterway during construction. Upon completion of construction activities the concrete washout material will be removed and properly disposed of prior to the area being restored.
- 15. Conditions in the field may warrant erosion control measures in addition to what is shown on these plans. The Developer shall implement whatever measures are determined necessary, as directed by the Town.

### B. Street Improvement Notes

- 1. All street construction is subject to the General Notes on the cover sheet of these plans as well as the Street Improvements Notes listed
- 2. A paving section design, signed and stamped by a Colorado licensed Engineer, must be submitted to the Town of Wellington Engineer for approval, prior to any street construction activity, (full depth asphalt sections are not permitted at a depth greater than 8 inches of asphalt). The job mix shall be submitted for approval prior to placement of any asphalt.
- 3. Where proposed paving adjoins existing asphalt, the existing asphalt shall be saw cut, a minimum distance of 12 inches from the existing edge, to create a clean construction joint. The Developer shall be required to remove existing pavement to a distance where a clean construction joint can be made. Wheel cuts shall not be allowed unless approved by the Town of Wellington Engineer.
- 4. Street subgrades shall be scarified the top 12 inches and re-compacted prior to subbase installation. No base material shall be laid until the

subgrade has been inspected and approved by the Town of Wellington Engineer.

- 5. When an existing asphalt street must be cut, the street must be restored to a condition equal to or better than its original condition. The existing street condition shall be documented by the Inspector before any cuts are made. Cutting and patching shall be done in conformance with Chapter 25, Reconstruction and Repair. The finished patch shall blend smoothly into the existing surface. The determination of need for a complete overlay shall be made by the Town of Wellington Engineer. All overlay work shall be coordinated with adjacent landowners such that future projects do not cut the new asphalt overlay work.
- 6. All traffic control devices shall be in conformance with these plans or as otherwise specified in M.U.T.C.D. (including Colorado supplement) and as per the Right-of-Way Work Permit traffic control plan.
- 7. The Developer is required to perform a gutter water flow test in the presence of the Town of Wellington Inspector and prior to installation of asphalt. Gutters that hold more than 1/4 inch deep or 5 feet longitudinally, of water, shall be completely removed and reconstructed to drain properly.
- 8. Prior to placement of H.B.P. or concrete within the street and after moisture/density tests have been taken on the subgrade material (when a full depth section is proposed) or on the subgrade and base material (when a composite section is proposed), a mechanical "proof roll" will be required. The entire subgrade and/or base material shall be rolled with a heavily loaded vehicle having a total GVW of not less than 50,000 lbs. and a single axle weight of at least 18,000 lbs, with pneumatic tires inflated to not less that 90 p.s.i.g. "Proof roll" vehicles shall not travel at speeds greater than 3 m.p.h. Any portion of the subgrade or base material which exhibits excessive pumping or deformation, as determined by the Town of Wellington Engineer, shall be reworked, replaced or otherwise modified to form a smooth, non-yielding surface. The Town of Wellington Engineer shall be notified at least 24 hours prior to the "proof roll." All "proof rolls" shall be preformed in the presence of an Inspector.
- C. Traffic Signing and Pavement Marking Construction Notes
- 1. All signage and marking is subject to the General Notes on the cover sheet of these plans, as well as the Traffic Signing and Marking Construction Notes listed here.
- 2. All symbols, including arrows, ONLYS, crosswalks, stop bars, etc. shall be pre-formed thermo-plastic.
- 3. All signage shall be per the Town of Wellington Standards and these plans or as otherwise specified in MUTCD.
- 4. All lane lines for asphalt pavement shall receive two coats of latex paint with glass beads. 5. All lane lines for concrete pavement should be epoxy paint.
- 6. Prior to permanent installation of traffic striping and symbols, the Developer shall place temporary tabs or tape depicting alignment and placement of the same. Their placement shall be approved by the Town of Wellington Traffic Engineer prior to permanent installation of striping and symbols.
- 7. Pre-formed thermo-plastic applications shall be as specified in these Plans and/or these Standards.
- 8. Epoxy applications shall be applied as specified in CDOT Standard Specifications for Road and Bridge Construction.
- 9. All surfaces shall be thoroughly cleaned prior to installation of striping or markings.
- 10. All sign posts shall utilize break-away assemblies and fasteners per the Standards.
- 11. A field inspection of location and installation of all signs shall be performed by the Town of Wellington Traffic Engineer or their designate. All discrepancies identified during the field inspection must be corrected before the 2-year warranty period will begin.
- 12. The Developer installing signs shall be responsible for locating and protecting all underground utilities.
- 13. Special care shall be taken in sign location to ensure an unobstructed view of each sign.
- 14. Signage and striping has been determined by information available at the time of review. Prior to initiation of the warranty period, the Town of Wellington Traffic Engineer reserves the right to require additional signage and/or striping if the Town of Wellington Traffic Engineer determines that an unforeseen condition warrants such signage according to the MUTCD or the CDOT M and S Standards. All signage and striping shall fall under the requirements of the 2-year warranty period for new construction (except fair wear on traffic markings).
- 15. Sleeves for sign posts shall be required for use in islands/medians. Refer to Chapter 14, Traffic Control Devices, for additional detail.

### D. Storm Drainage Notes

- 1. The Town of Wellington shall not be responsible for the maintenance of storm drainage facilities located on private property. Maintenance of onsite drainage facilities shall be the responsibility of the property owner(s).
- 2. All recommendations of the Drainage Compliance Memorandum, Boxelder Commons 4th Filing by Northern Engineering Services, Inc., shall be followed and implemented
- 3. Prior to final inspection and acceptance by the Town of Wellington, certification of the drainage facilities, by a registered engineer, must by submitted to and approved by the Stormwater Utility Department. Certification shall be submitted to the Stormwater Utility Department at least two weeks prior to the release of a certificate of occupancy for single family units. For commercial properties, certification shall by submitted to the Stormwater Utility Department at least two weeks prior to the release of any building permits in excess of those allowed prior to certification per the Development Agreement.

- 1. All 8-12 inch water mains shall be AWWA C900 PVC DR 18.
- 2. All water fittings and valves are only graphically represented and are not to scale.
- 3. All ductile iron pipe, fittings, valves and metaillic appurtances shally be polyethylene wrapped.
- 4. All fittings and mechanical joints shall be installed with restrained joint glands.
- 5. Existing water system valves shall be operated by town personnel only.
- 6. In locations where changes in line and grade are produced through deflections in individual joints, the maximum allowable deflection shall be 80% of the manufacturers recommendation.
- 7. All water services shall be 3/4-inch unless otherwise shown.
- 8. The minimum cover over water lines is 4.5 feet and the maximum cover is 5.5 feet unless otherwise noted in the plans and approved by the
- 9. Water mains shall be poly-wrapped D.I.P, or PVC with tracer wire.
- 10. HDPE pipe may be used for 1-1/2 and 2 inch water services. The pipe shall meet the standards of AWWA 901, NSF Standard 61 and ASTM. The HDPE pipe shall be SDR 9 having a pressure rating of 250 psi. Stiffeners shall be used at all fittings and connections. Tracer wire shall be installed with the HDPE service, and shall extend up the curb stop. The curb stop shall be covered with a metal box and tracer

### F. Sewer Notes

- 1. Sewer line dimensions are calculated to the center of manholes.
- 2. All sewer lines shall be SDR 35 PVC.

wire test lid per Town Water Detail 2-5.

- 3. Manhole rim elevations are to be adjusted to 1/4" below finished grade.
- 4. Single family sewer services shall be 4-inch diameter with a minimum slope of 2% unless otherwise noted. Size and slope of sewer services multi family or commercial shall need to be approved by Town Engineer
- 5. All sewer services shall be 4-inch diameter PVC unless otherwise noted.
- 6. Maintain 10' minimum separation between all sanitary sewer & water mains & services.
- 7. Service connections to manhole are acceptable only if manholes are precast with manhole to pipe connectors cast in manhole at the time of manufacturing. Otherwise connect service directly to sanitary sewer main.

CALL UTILITY NOTIFICATION CENTER OF Know what's below. Call before you dig. CALL 2 BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES

TOWN OF WELLINGTON DRAWING APPROVAL REVIEW IS FOR GENERAL COMPLIANCE WITH TOWN STANDARDS. NO RESPONSIBILITY IS ASSUMED FOR CORRECTNESS OF DESIGN.

DATE\_\_\_\_\_BY \_\_\_\_\_PUBLIC WORKS DIRECTOR

Sheet

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INV(E) 5170.44 30" RCP \*SEE NOTES 1 & 9\*

### REPAIR SPECIFICATIONS

- 1. ALL REPAIRS SHALL COMPLY WITH LARIMER COUNTY URBAN AREA STREET STANDARDS (LUCASS) CHAPTER 25 RECONSTRUCTION AND REPAIR. 2. SURFACE CRACKS HAVING HEAVY VEGETATION GROWTH MUST BE TREATED WITH HERBICIDE 7 TO 21 DAYS PRIOR TO PAVEMENT WORK. A GLYPHOSATE HERBICIDE WITH 41% MINIMUM ACTIVE INGREDIENT IS RECOMMENDED. AFTER SPRAYING VEGETATION, WAIT 5-7 DAYS BEFORE CLEANING THE CRACKS.
- 3. CURB, GUTTER AND SIDEWALK SHALL BE REMOVED TO THE NEAREST JOINT. 4. WHERE SUBGRADE STABILIZATION IS REQUIRED, CONTRACTOR SHALL EITHER REPLACE 12" OF SUBGRADE WITH SUITABLE MATERIAL (MIN STRUCTURAL
- NO. 3.84) OR SHALL APPLY LIME CHEMICAL STABILIZATION VIA TILLING.
- 5. ASPHALT REPAIR SECTIONS SHALL BE PLACED IN COMPACTED 2 INCH LIFTS BETWEEN A TACT COAT. TACT COAT MATERIAL SHALL MEET ALL REQUIREMENTS OF CDOT SPECIFICATIONS SECTION 407.02, 407.03 AND 702.
- 6. CRACK SEALING IS REQUIRED IN VARIOUS LOCATIONS IN THE PAVEMENT AREA OF INTEREST. CRACK SEALANT SHALL BE COMPLETED BY CLEANING OUT EXISTING CRACK OF DAMAGED ASPHALT, PLACING SAND THEN A BACKER ROD AT THE BOTTOM OF FULL-DEPTH CRACKS, AND SHALL BE SEALED WITH
- RUBBERIZED ASPHALT SEALANT.
- 7. A FINAL SEAL COAT SHALL BE APPLIED TO THE SURFACE AFTER REPAIRS ARE COMPLETED. SEAL COAT MATERIAL SHALL COMPLY WITH REQUIREMENTS OF CDOT SPECIFICATIONS SECTION 407.02, 407.03 AND 702.

1 inch = 40 ft.

LEGEND: PROJECT BOUNDARY EXISTING RIGHT-OF-WAY EXISTING FEMA FLOODPLAIN LIMITS EXISTING EASEMENT BASE FLOOD ELEVATION LINE EXISTING MAJOR CONTOUR -----EXISTING MINOR CONTOUR - **- - - - - 5**013**- - - - -**EXISTING CABLE TV EXISTING TELEPHONE EXISTING GAS EXISTING STORM SEWER EXISTING SANITARY SEWER EXISTING WATER EXISTING ELECTRIC EXISTING FENCE PROPOSED SAWCUT PROPOSED UTILITY TRENCH REMOVE EXISTING ASPHALT REMOVAL OF CONCRETE EXISTING ELECTRIC VAULT EXISTING FIRE HYDRANT EXISTING IRRIGATION BOX EXISTING WATER METER EXISTING GAS METER

# FIELD SURVEY BY:

EXISTING TELEPHONE PEDESTAL

EXISTING TREES (TO REMAIN)

NORTHERN ENGINEERING SERVICES, INC. PROJECT NO. 958-012 DATE: SEPTEMBER 9, 2019

### SUBSURFACE EXPLORATION BY:

CTL THOMPSON, INC. PROJECT NO. WY01709-125 DATE: JULY 8, 2019

### **NOTES:**

- THE SIZE, TYPE AND LOCATION OF ALL KNOWN UNDERGROUND UTILITIES ARE APPROXIMATE WHEN SHOWN ON THESE DRAWINGS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE EXISTENCE OF ALL UNDERGROUND UTILITIES IN THE AREA OF THE WORK. BEFORE COMMENCING NEW CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES AND SHALL BE RESPONSIBLE FOR ALL UNKNOWN UNDERGROUND UTILITIES.
- CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING DEMOLITION, REMOVAL, REPLACEMENT, AND DISPOSAL OF ALL FACILITIES AND MATERIAL.
- ALL SYMBOLS ARE ONLY GRAPHICALLY REPRESENTED AND ARE NOT TO
- CONTRACTOR IS ENCOURAGED TO PERFORM DEMOLITION IN A MANNER THAT MAXIMIZES SALVAGE, RE-USE, AND RECYCLING OF MATERIALS. THIS INCLUDES APPROPRIATE SORTING AND STORING, IN PARTICULAR. DEMOLISHED CONCRETE, ASPHALT, AND BASE COURSE SHOULD BE RECYCLED IF POSSIBLE.
- CONTACT THE PROJECT SURVEYOR FOR ANY INQUIRIES RELATED TO THE EXISTING SITE SURVEY.
- CONTRACTOR SHALL COORDINATE ALL CONSTRUCTION ITEMS IMPACTING ADJACENT PROPERTIES WITH THE PROPERTY OWNERS PRIOR TO BEGINNING ANY CONSTRUCTION ITEMS.
- LIMITS OF STREET CUT ARE APPROXIMATE. FINAL LIMITS ARE TO BE DETERMINED IN THE FIELD BY THE CITY ENGINEERING INSPECTOR. ALL REPAIRS TO BE IN ACCORDANCE WITH CITY STREET REPAIR STANDARDS.
- NO DEMOLITION MAY OCCUR ONSITE UNTIL THE APPROPRIATE PERMITS AND APPROVALS HAVE BEEN ISSUED BY THE CITY. THIS INCLUDED, BUT IS NOT LIMITED TO, THE DEMOLITION OF STRUCTURES, UTILITIES, PAVEMENT.
- 9. THE CONTRACTOR SHALL REMOVE ANY EXISTING SILTATION OR DEBRIS WITHIN THE EXISTING STORM SEWER, WITHIN THE PROJECT BOUNDARY.

CALL UTILITY NOTIFICATION CENTER OF



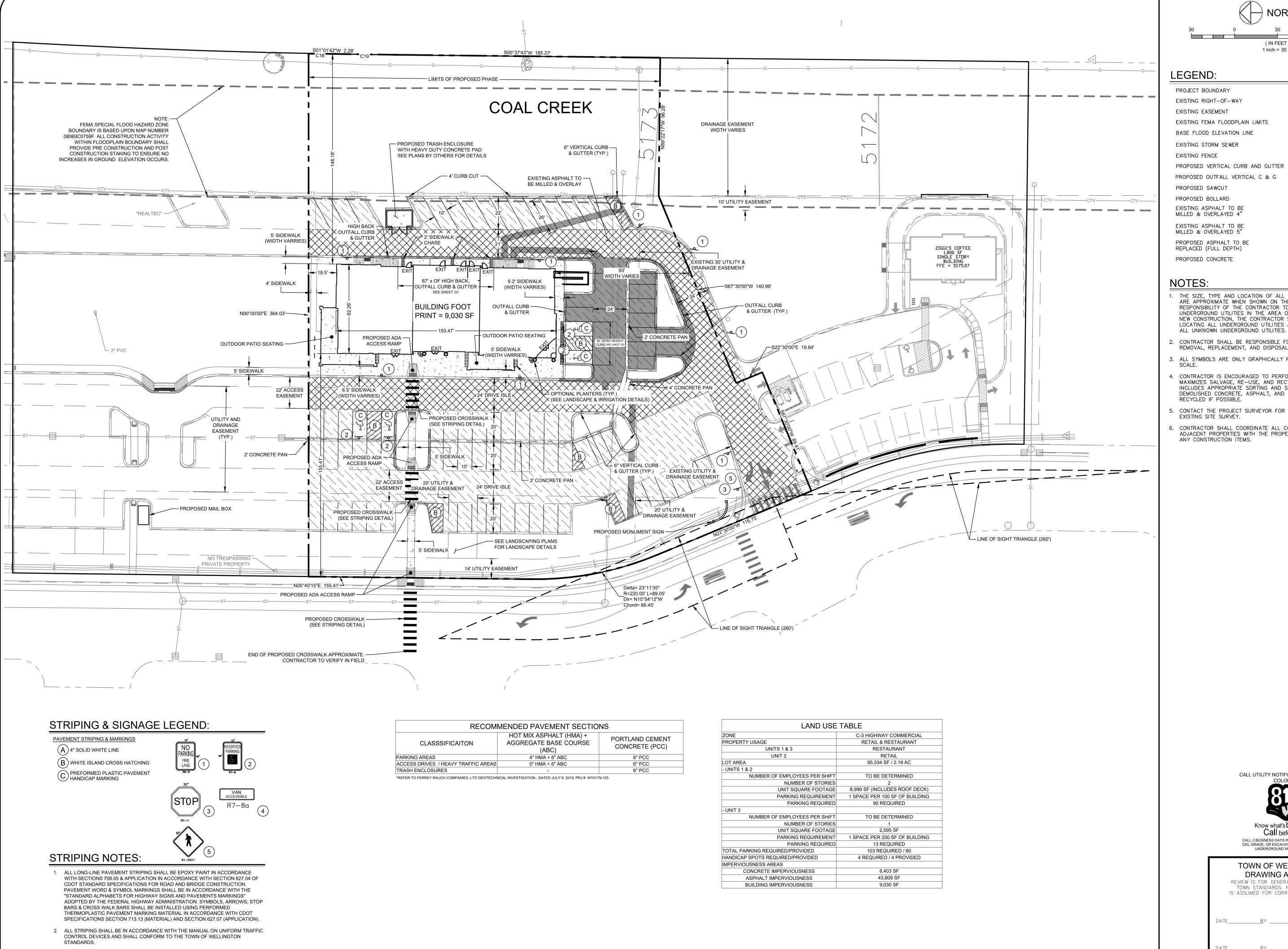
Know what's **below**. Call before you dig. CALL 2 BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES.

TOWN OF WELLINGTON DRAWING APPROVAL REVIEW IS FOR GENERAL COMPLIANCE WITH TOWN STANDARDS. NO RESPONSIBILITY IS ASSUMED FOR CORRECTNESS OF DESIGN. TOWN ENGINEER \_\_\_\_BY \_\_\_\_\_PUBLIC WORKS DIRECTOR

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Sheet 3 of 26



3. ADA SIGNAGE SHALL BE ON SIGN POSTS

4. ALL PARKING LOT STRIPING SHALL BE 4" WIDE.

1 inch = 30 ft.

PROJECT BOUNDARY EXISTING RIGHT-OF-WAY EXISTING EASEMENT EXISTING FEMA FLOODPLAIN LIMIT BASE FLOOD ELEVATION LINE EXISTING STORM SEWER PROPOSED VERTICAL CURB AND GUTTER PROPOSED OUTFALL VERTICAL C & G \_\_\_\_ . . . . \_\_ . . . \_\_ . . . \_\_ . . . \_\_ PROPOSED SAWCUT \_\_\_\_\_\_ PROPOSED BOLLARD EXISTING ASPHALT TO BE MILLED & OVERLAYED 4" EXISTING ASPHALT TO BE MILLED & OVERLAYED 5"

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- CONTRACTOR SHALL COORDINATE ALL CONSTRUCTION ITEMS IMPACTING ADJACENT PROPERTIES WITH THE PROPERTY OWNERS PRIOR TO BEGINNING ANY CONSTRUCTION ITEMS.

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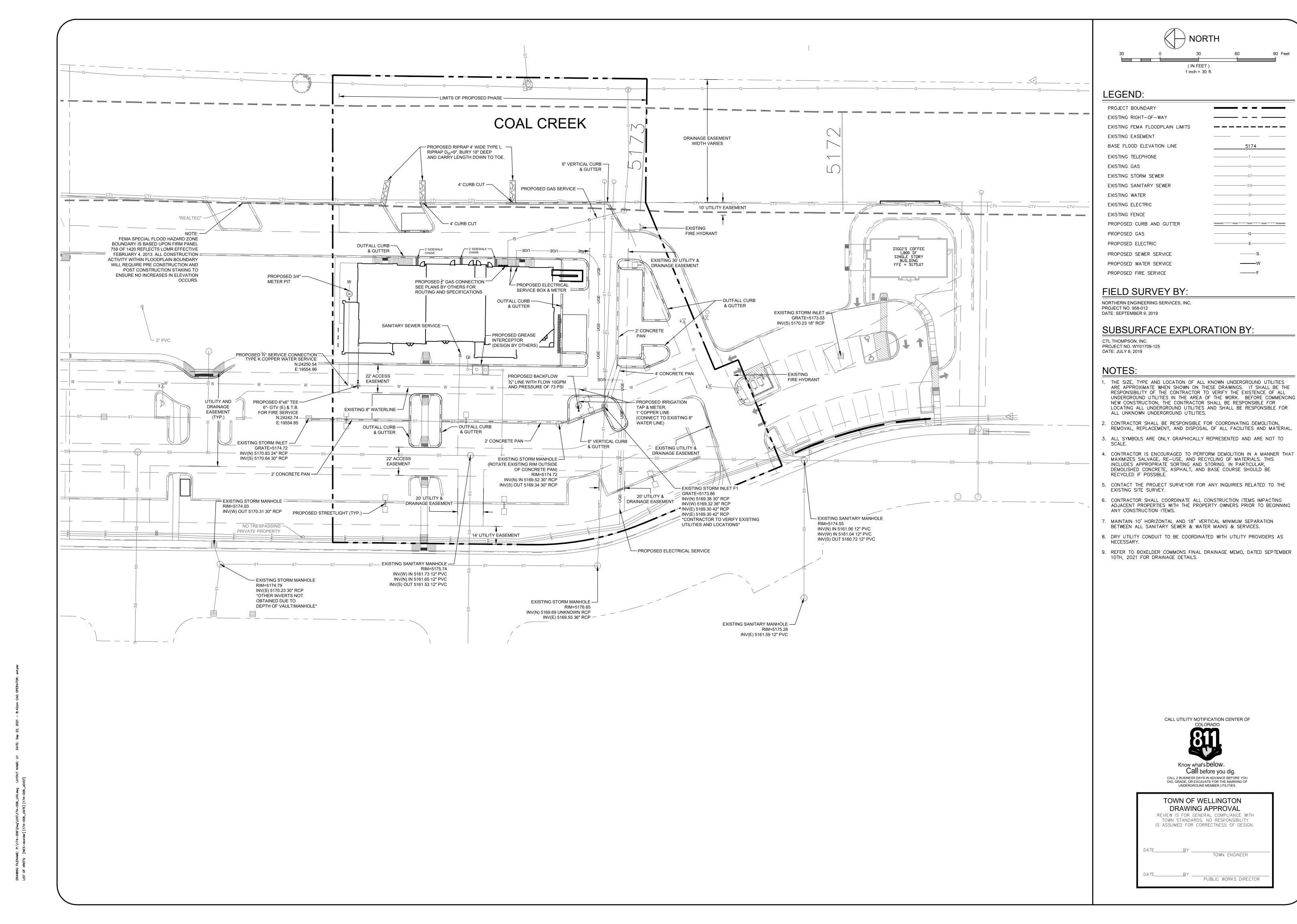
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Page 35 of 122



Revisions:

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NORTHERN NGINEERING eet, Suite 100, 80521 970.221.4158 northernengineering.com

FORT COLLINS: 301 North How GREELEY: 820 8th Street, 806

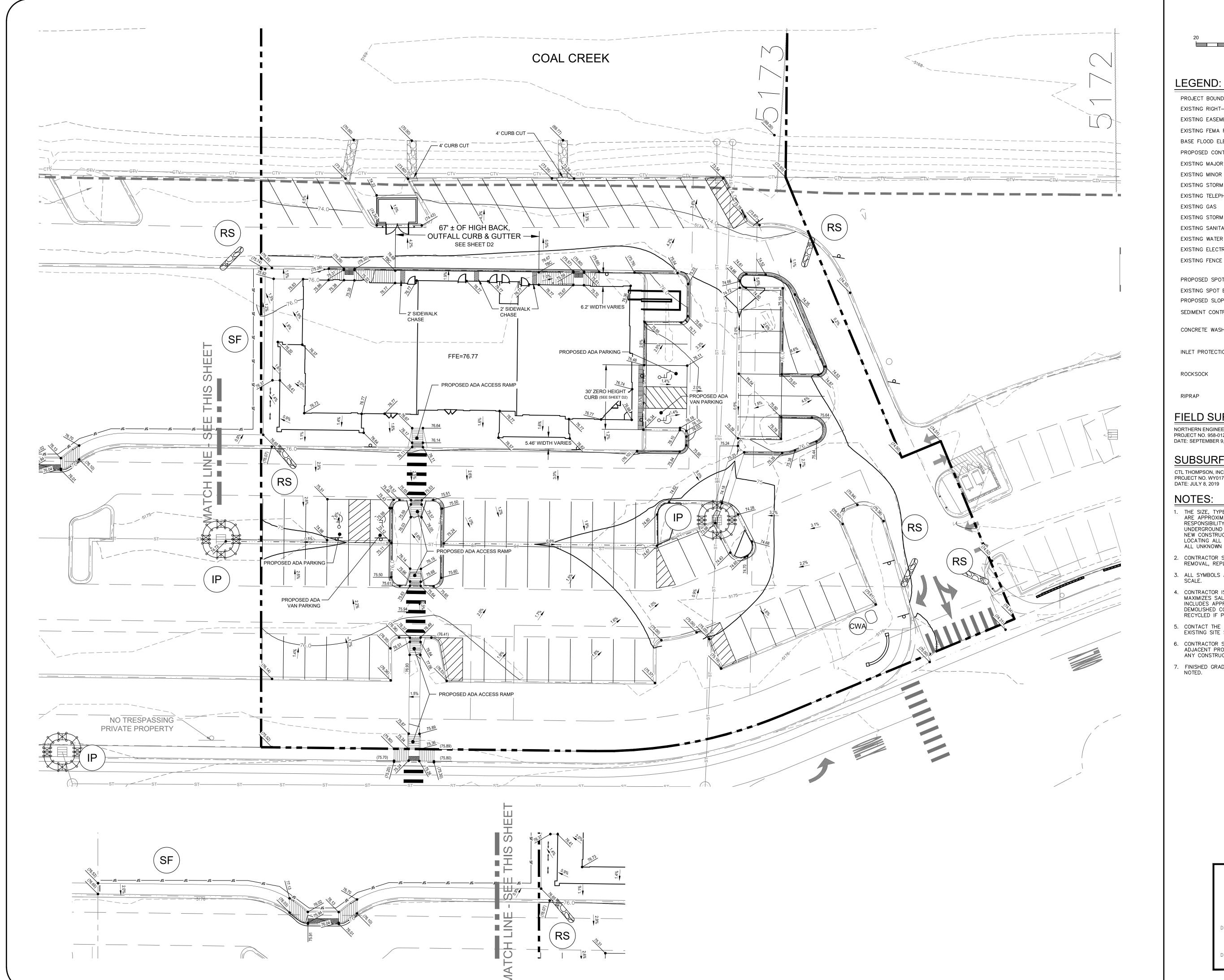
DESIGNED BY: SCALE:
S. King
DRAWN BY: P. MANAGER:
S. King
S. Ritchie

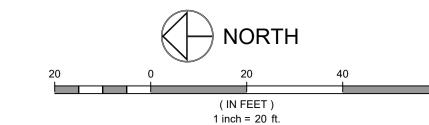
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UTILITY PLAN

BOXELDER CO

Sheet U1





LEGEND:

PROJECT BOUNDARY EXISTING RIGHT-OF-WAY EXISTING EASEMENT EXISTING FEMA FLOODPLAIN LIMITS BASE FLOOD ELEVATION LINE PROPOSED CONTOUR EXISTING MAJOR CONTOUR -----EXISTING MINOR CONTOUR -----EXISTING STORM SEWER EXISTING TELEPHONE EXISTING GAS EXISTING STORM SEWER EXISTING SANITARY SEWER EXISTING WATER EXISTING ELECTRIC EXISTING FENCE

PROPOSED SPOT ELEVATION EXISTING SPOT ELEVATION PROPOSED SLOPES SEDIMENT CONTROL FENCE

CONCRETE WASHOUT AREA

INLET PROTECTION ROCKSOCK

RS

(RP)

FIELD SURVEY BY:

NORTHERN ENGINEERING SERVICES, INC. PROJECT NO. 958-012 DATE: SEPTEMBER 9, 2019

### SUBSURFACE EXPLORATION BY:

CTL THOMPSON, INC. PROJECT NO. WY01709-125

### NOTES:

- THE SIZE, TYPE AND LOCATION OF ALL KNOWN UNDERGROUND UTILITIES ARE APPROXIMATE WHEN SHOWN ON THESE DRAWINGS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE EXISTENCE OF ALL UNDERGROUND UTILITIES IN THE AREA OF THE WORK. BEFORE COMMENCING NEW CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES AND SHALL BE RESPONSIBLE FOR ALL UNKNOWN UNDERGROUND UTILITIES.
- CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING DEMOLITION, REMOVAL, REPLACEMENT, AND DISPOSAL OF ALL FACILITIES AND MATERIAL.
- 5. ALL SYMBOLS ARE ONLY GRAPHICALLY REPRESENTED AND ARE NOT TO SCALE.
- CONTRACTOR IS ENCOURAGED TO PERFORM DEMOLITION IN A MANNER THAT MAXIMIZES SALVAGE, RE-USE, AND RECYCLING OF MATERIALS. THIS INCLUDES APPROPRIATE SORTING AND STORING. IN PARTICULAR, DEMOLISHED CONCRETE, ASPHALT, AND BASE COURSE SHOULD BE RECYCLED IF POSSIBLE.
- 5. CONTACT THE PROJECT SURVEYOR FOR ANY INQUIRIES RELATED TO THE EXISTING SITE SURVEY.
- 6. CONTRACTOR SHALL COORDINATE ALL CONSTRUCTION ITEMS IMPACTING ADJACENT PROPERTIES WITH THE PROPERTY OWNERS PRIOR TO BEGINNING ANY CONSTRUCTION ITEMS.
- . FINISHED GRADE TO MATCH FINISHED FLOOR ELEVATION UNLESS OTHERWISE NOTED.

CALL UTILITY NOTIFICATION CENTER OF



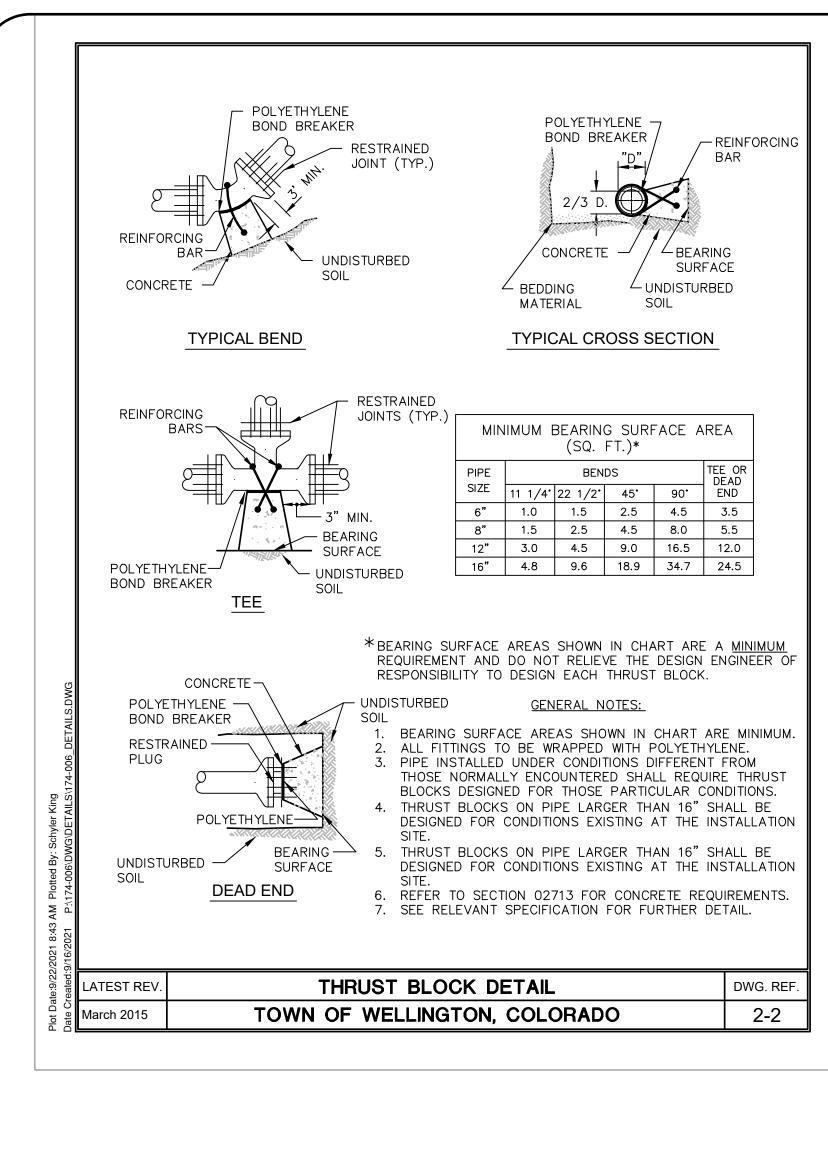
CALL 2 BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES.

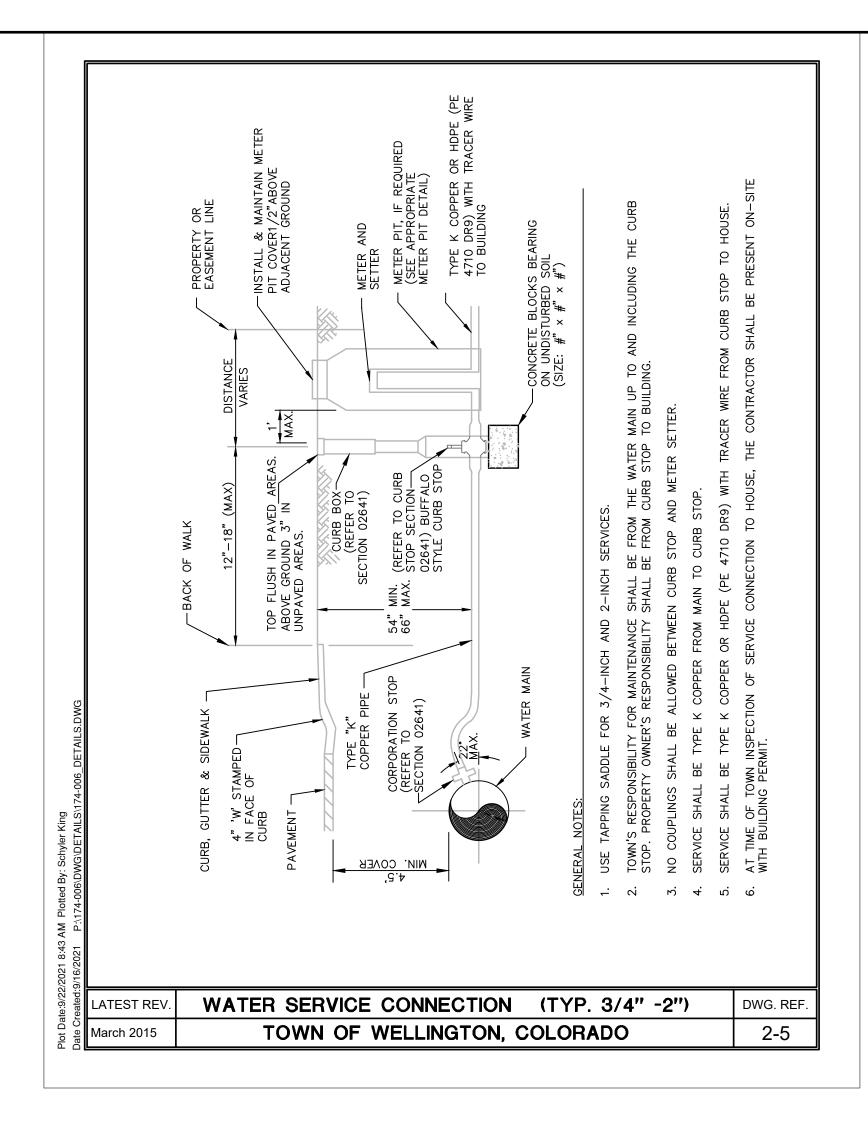
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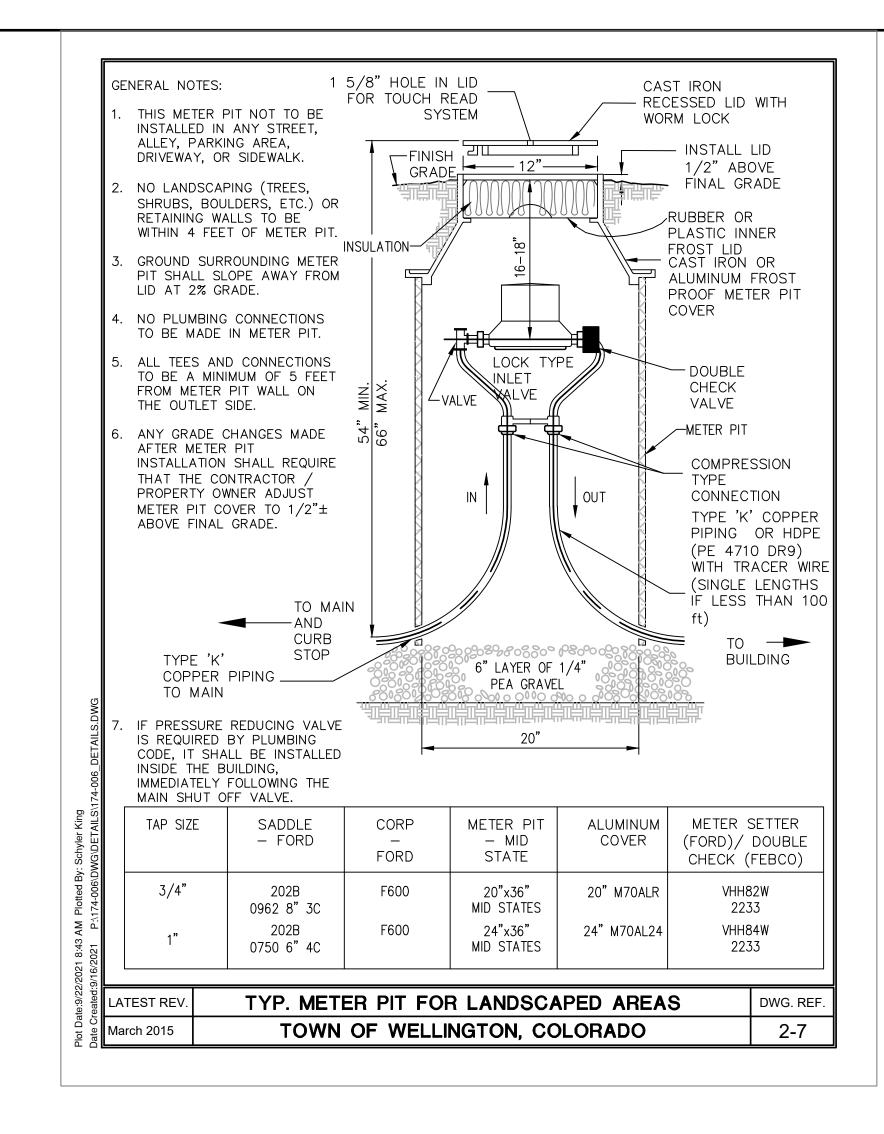
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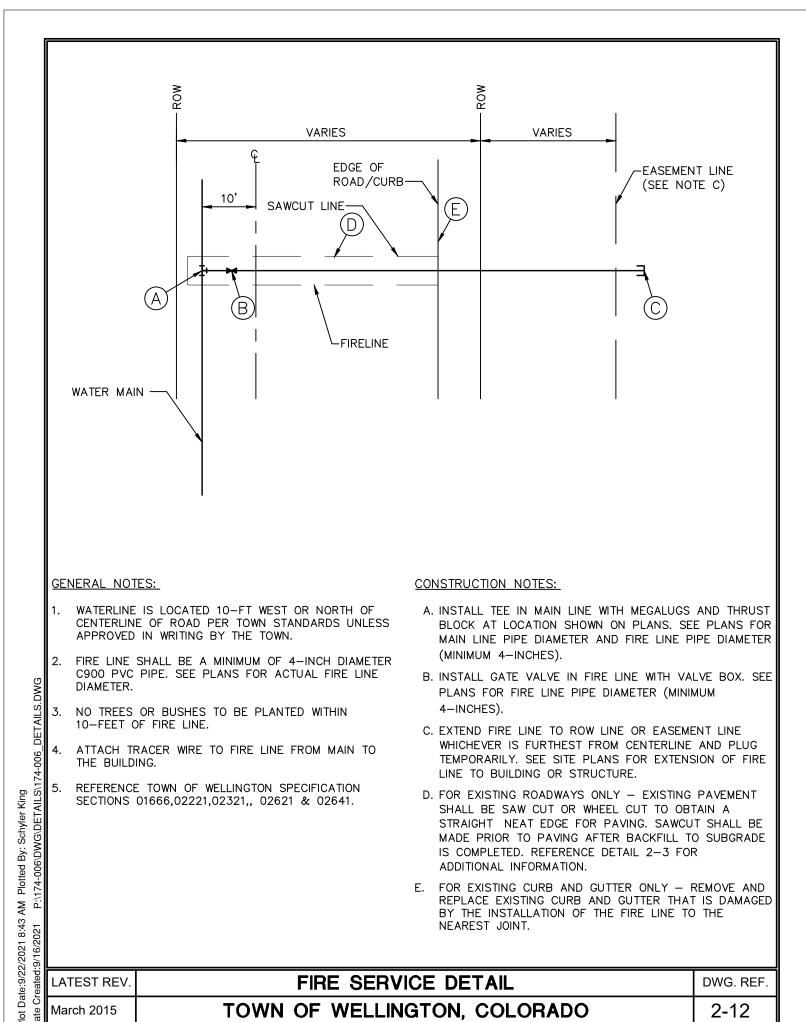
Page 37 of 122

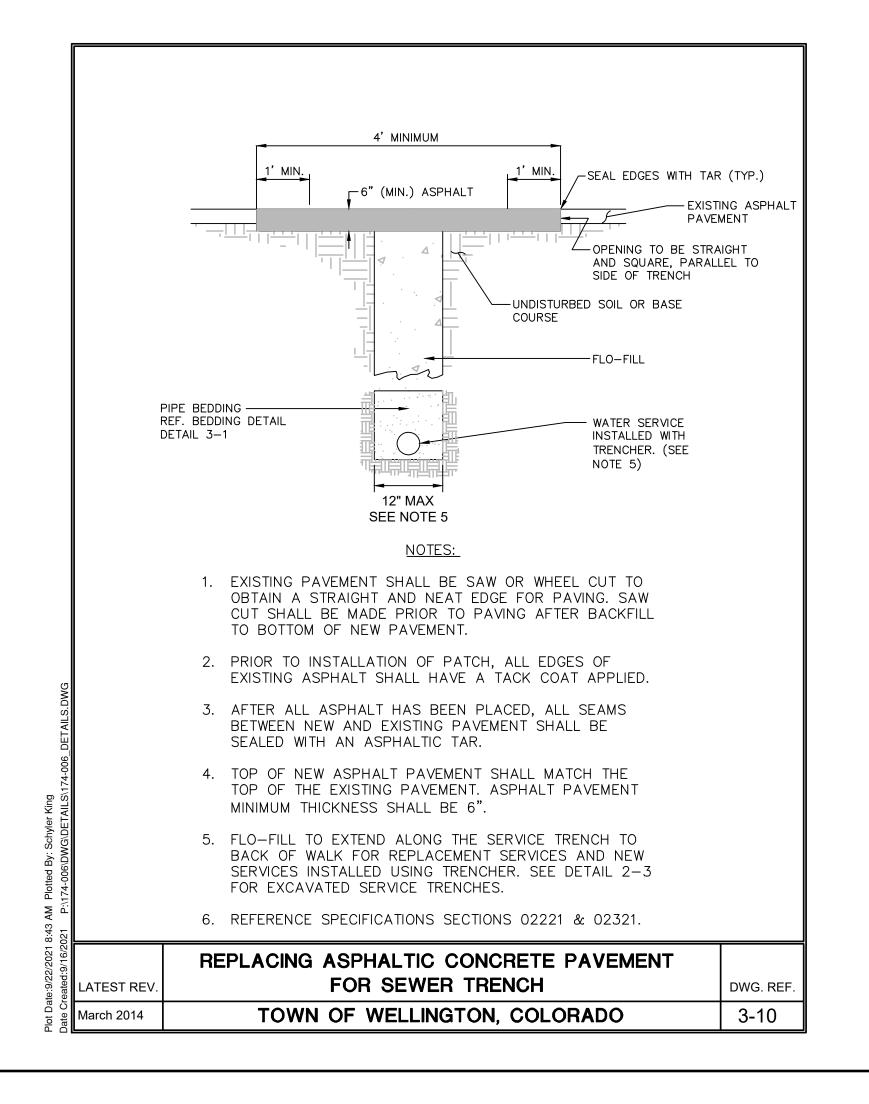
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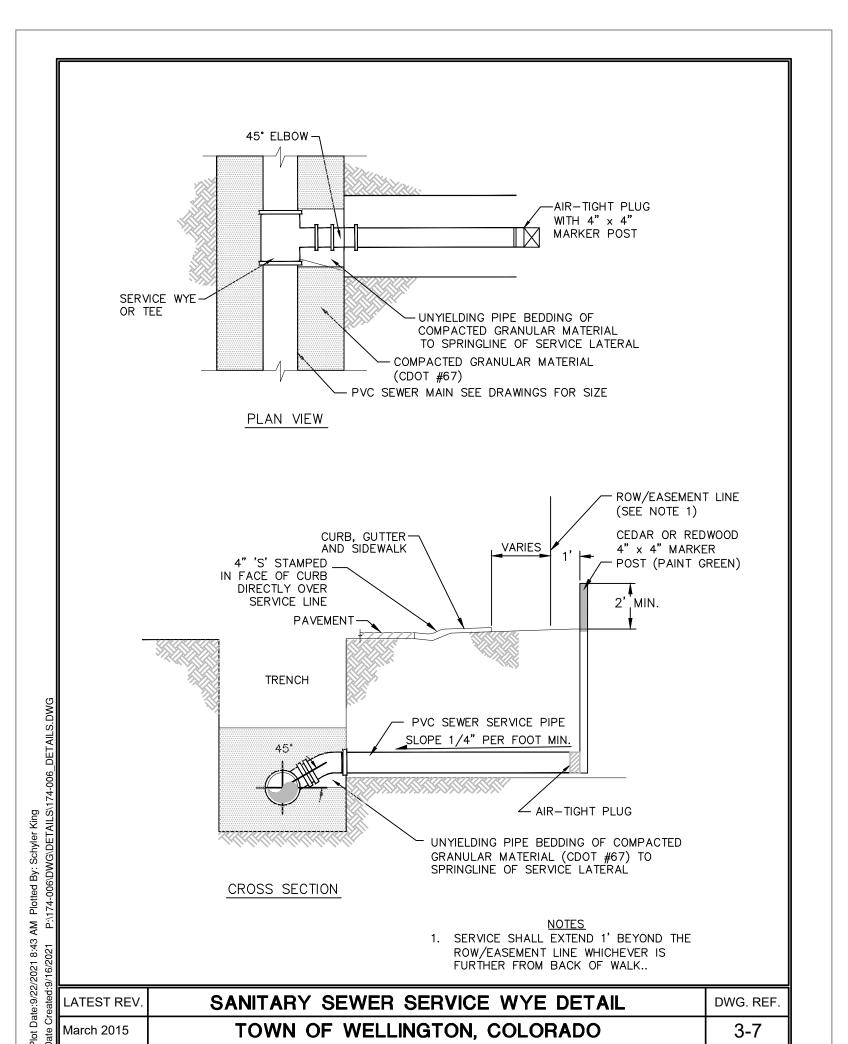


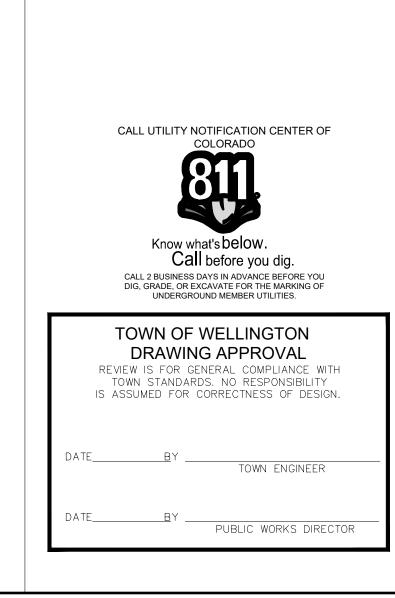








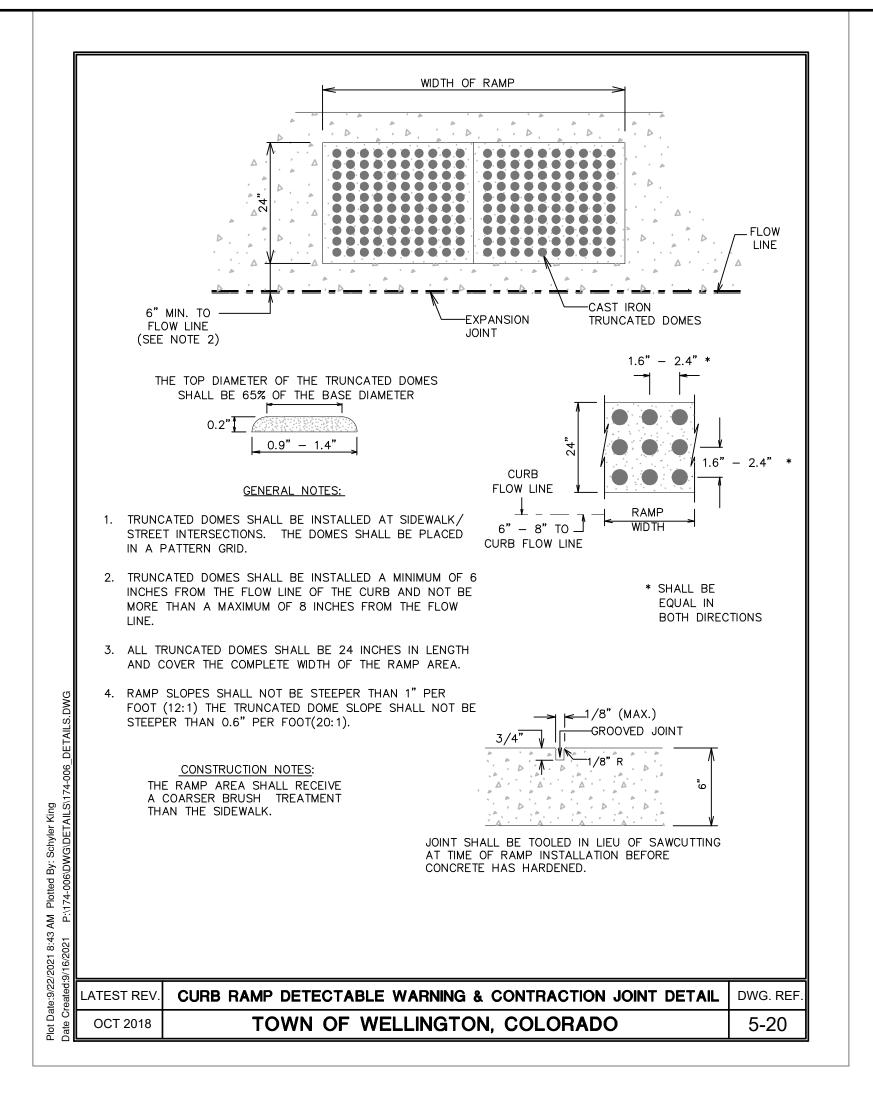


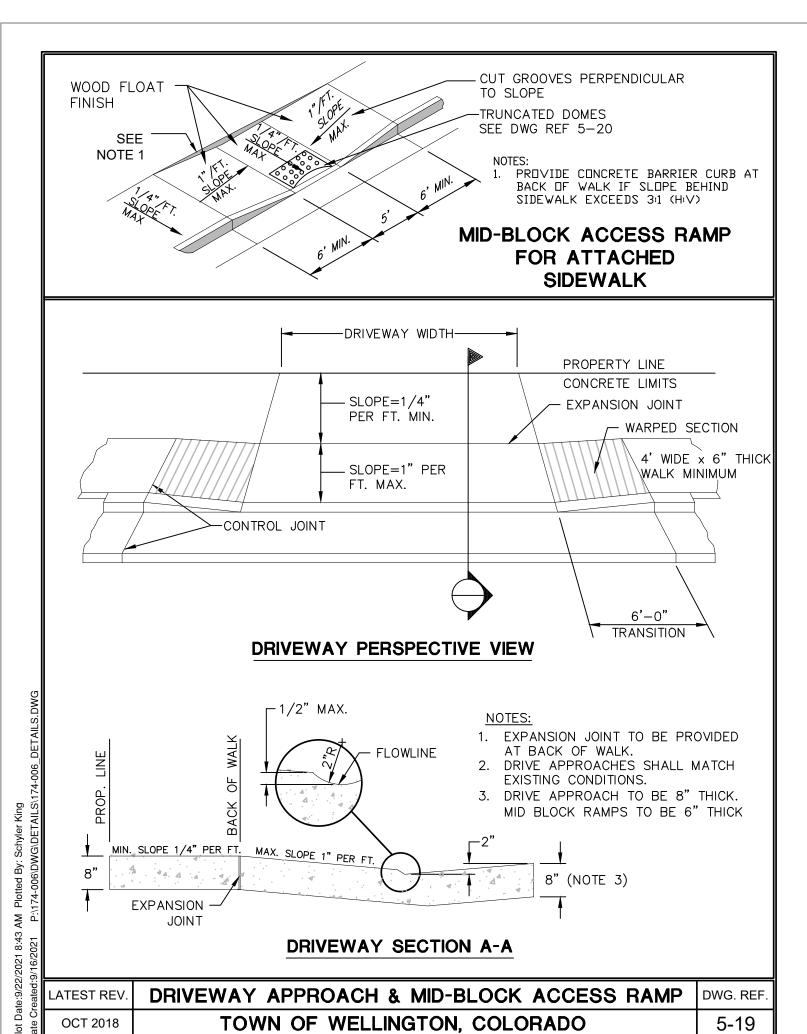


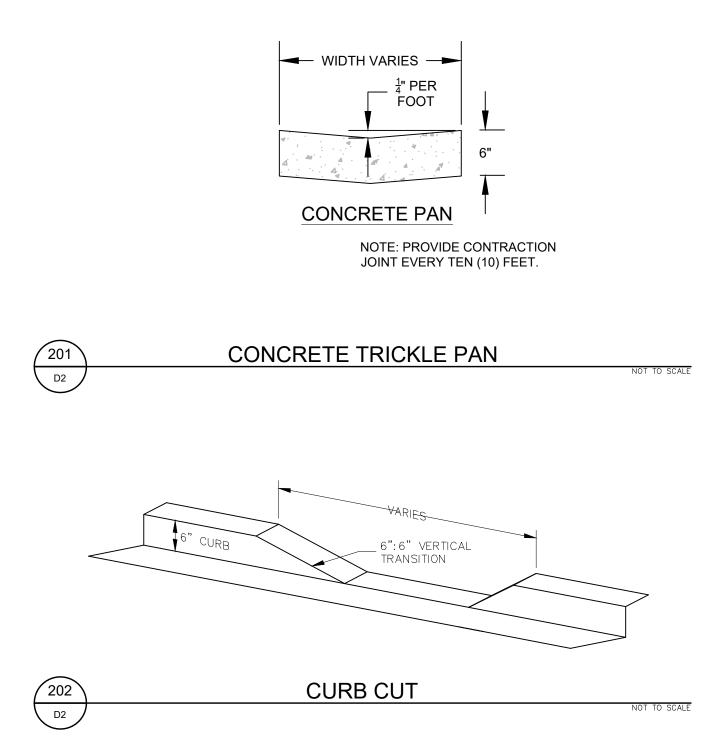


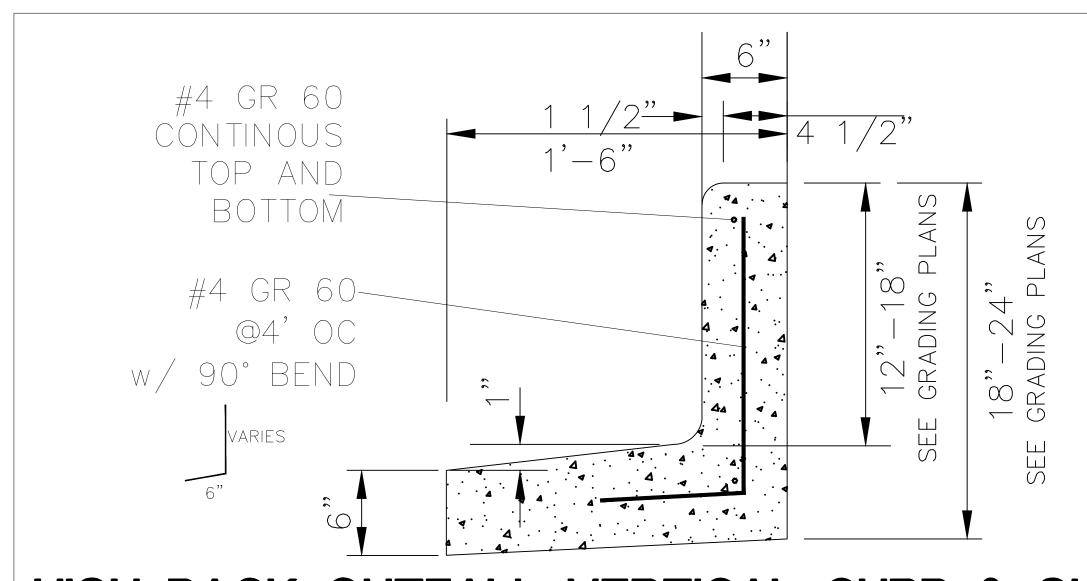
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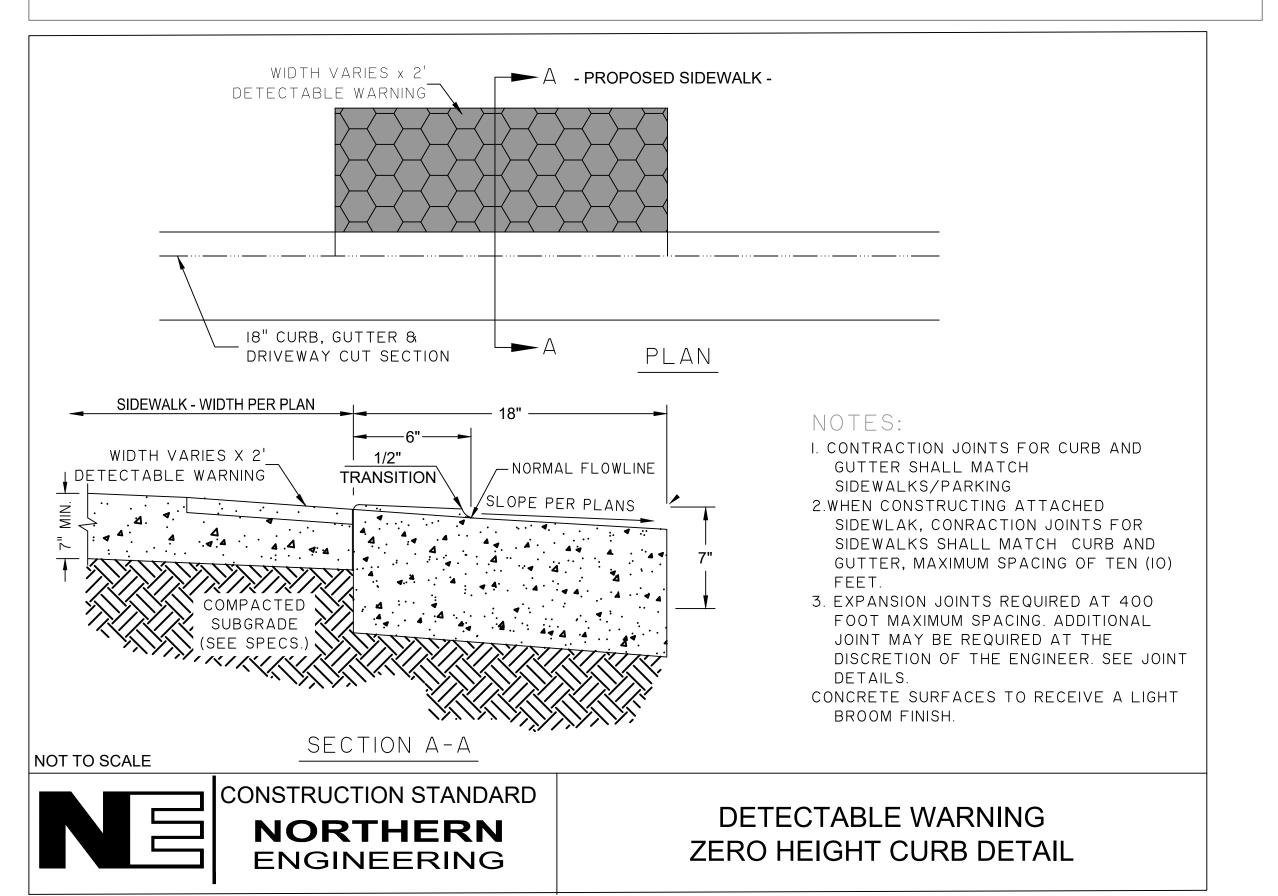














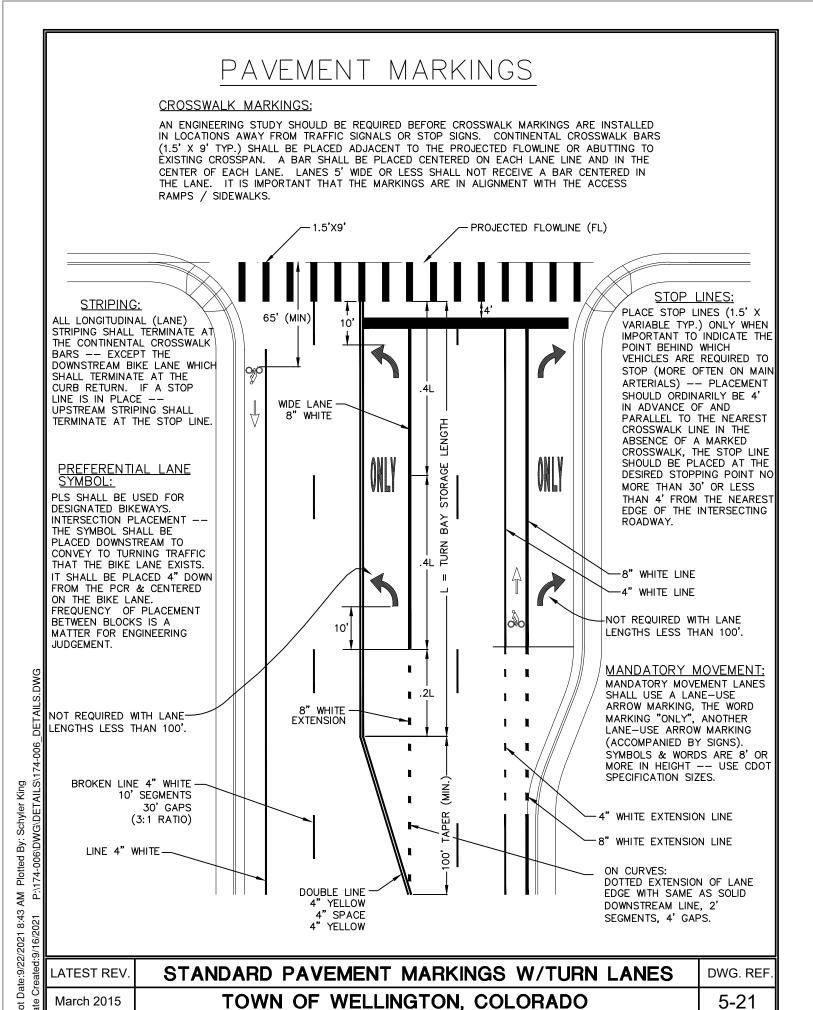


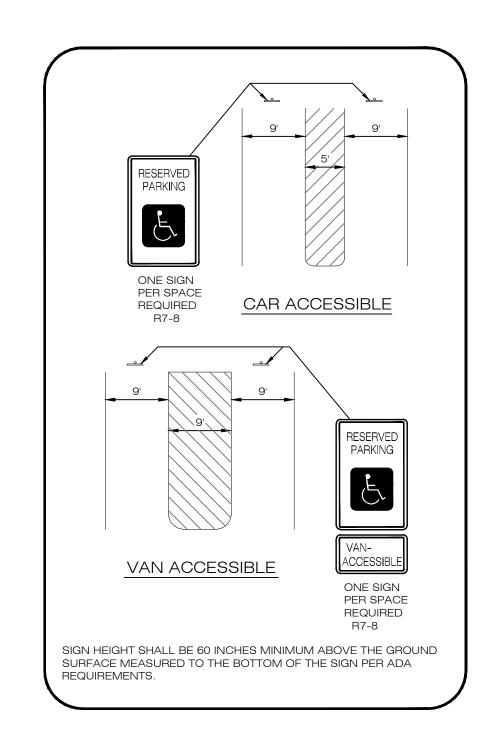
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TOWN ENGINEER DATE\_\_\_\_\_BY \_\_\_\_PUBLIC WORKS DIRECTOR Sheet

HERNG ERING

Page 39 of 122





HANDICAP PARKING

PARKING

PROJECT: DATE: 174–006 09/22/ 09/22/ DESIGNED BY: SCALE: S. King N/A DRAWN BY: P. MAN S. King S. Kitch

HERING ERING

1 ZB, BLOCK 1)

DETAILS

XELDER COMMONS,

CALL UTILITY NOTIFICATION CENTER OF

Know what's **below**.

Call before you dig.

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

TOWN OF WELLINGTON

DRAWING APPROVAL

REVIEW IS FOR GENERAL COMPLIANCE WITH

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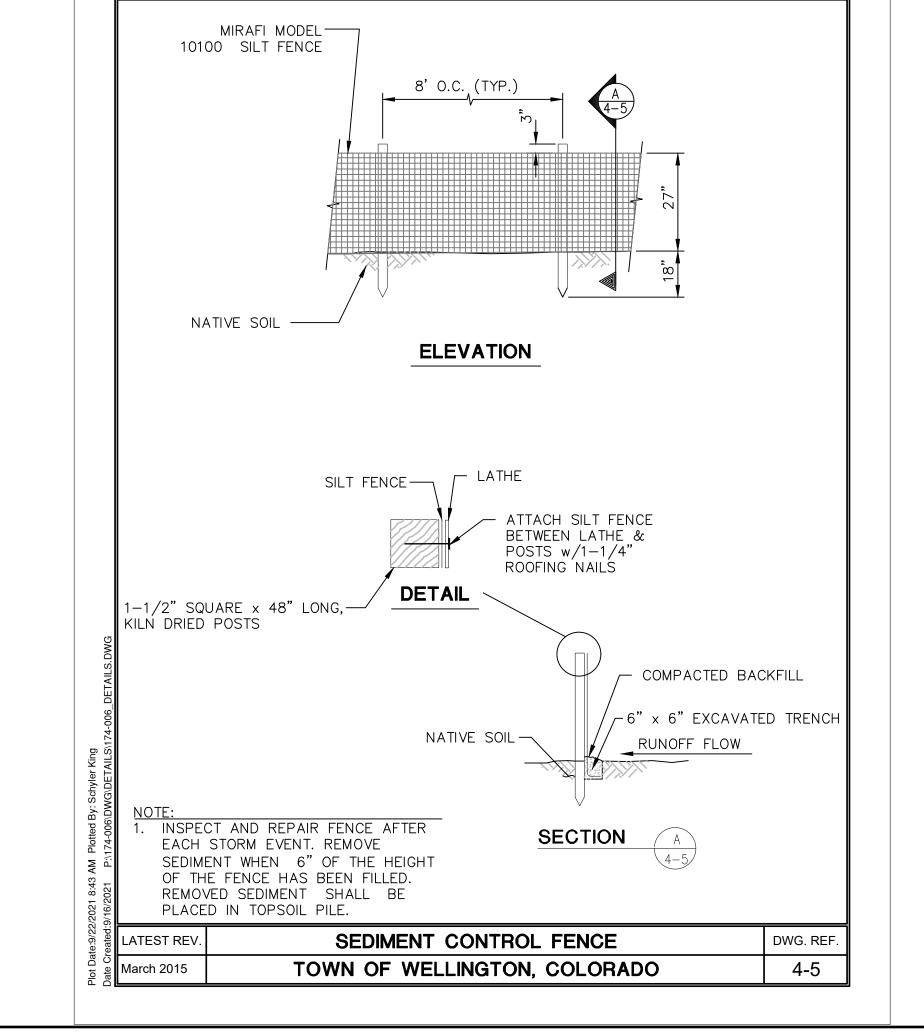
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DATE\_\_\_\_\_BY \_\_\_\_PUBLIC WORKS DIRECTOR

Sheet D3

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SIGN TO INDICATE THE - LOCATION OF THE CONCRETE WASHOUT AREA

COMPACTED EMBANKMENT MATERIAL, TYP.

----- BERM AROUND PERIMETER

1. CONCRETE WASHOUT AREA SHALL BE INSTALLED PRIOR TO ANY CONCRETE PLACEMENT ON SITE. 2. VEHICLE TRACKING CONTROL IS REQUIRED IF ACCESS TO CONCRETE WASHOUT AREA IS OFF PAVEMENT.

3. SIGNS SHALL BE PLACED AT THE CONSTRUCTION ENTRANCE, AT THE WASHOUT AREA, AND ELSEWHERE AS NECESSARY TO CLEARLY INDICATE THE LOCATION OF THE CONCRETE WASHOUT AREA TO OPERATORS OF CONCRETE TRUCKS AND PUMP RIGS.

4. THE CONCRETE WASHOUT AREA SHALL BE REPAIRED AND ENLARGED OR CLEANED OUT AS NECESSARY TO MAINTAIN CAPACITY FOR WASTED CONCRETE.

AT THE END OF CONSTRUCTION, ALL CONCRETE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF AT AN ACCEPTED WASTE SITE.

6. WHEN THE CONCRETE WASHOUT AREA IS REMOVED, THE DISTURBED AREA SHALL BE SEEDED AND MULCHED OR OTHERWISE STABILIZED IN A MANNER ACCEPTED BY THE CITY.

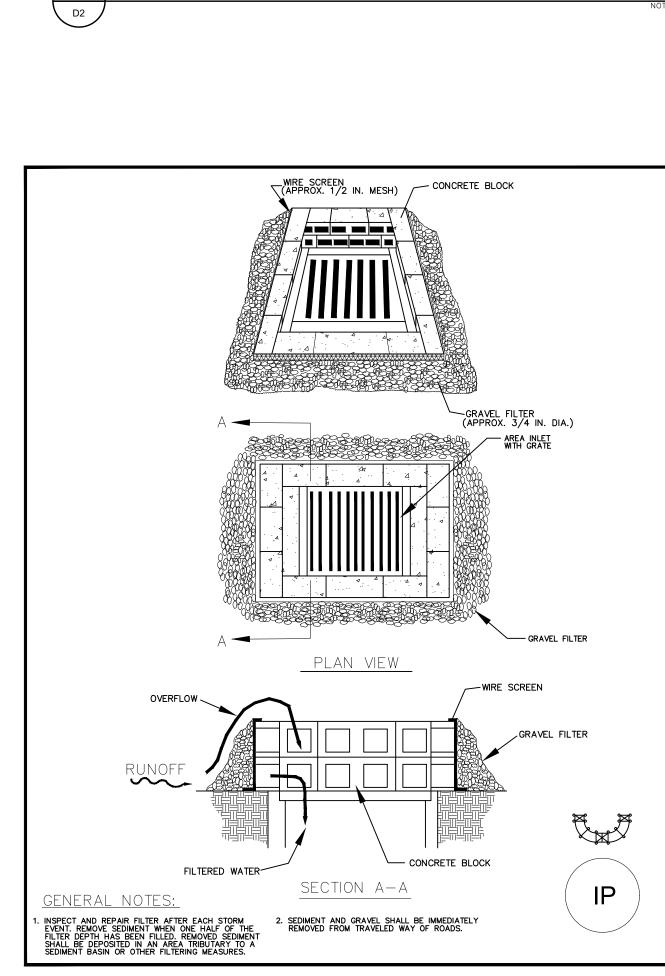
7. LOCATION OF CONCRETE WASHOUT AREA ON SHEET EC1 IS CONCEPTUAL ONLY. FINAL LOCATION TO BE DETERMINED IN THE FIELD AT CONTRACTOR'S DISCRETION.

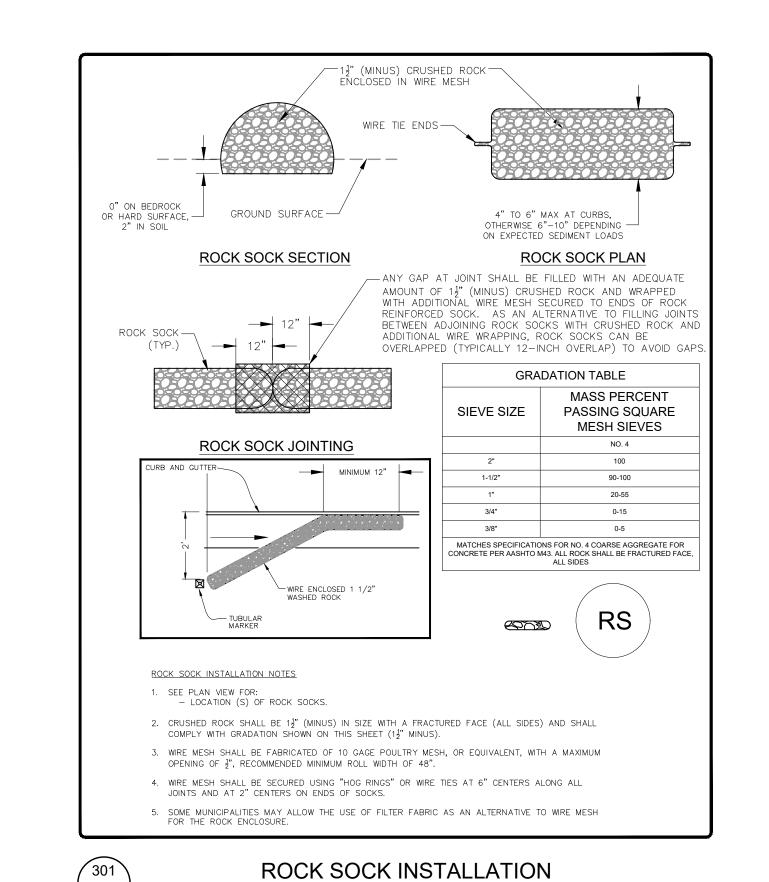
CONCRETE WASHOUT AREA

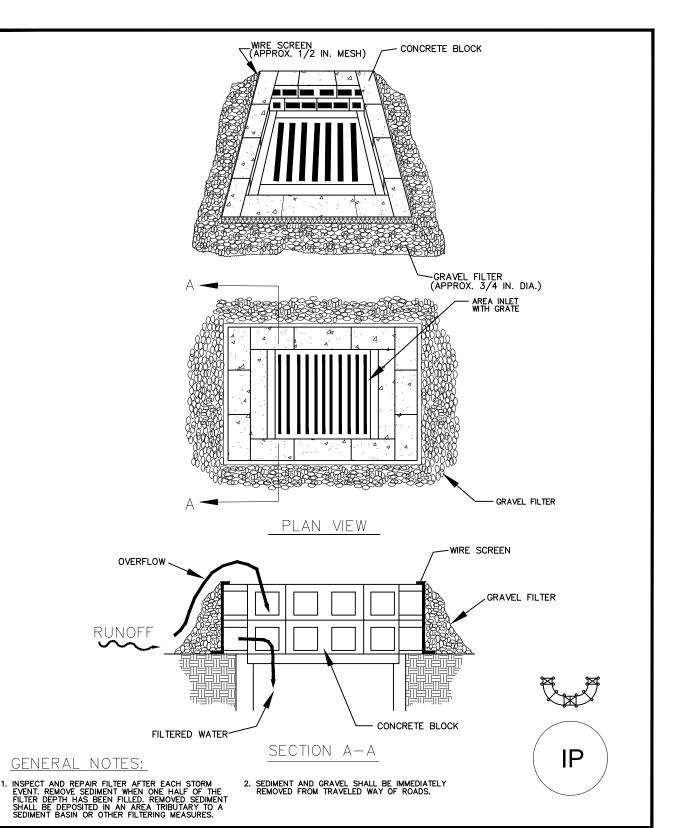
OR AS REQUIRED TO CONTAIN WASTE CONCRETE

GROUND SURFACE -

3H:1V OR FLATTER SIDE SLOPES

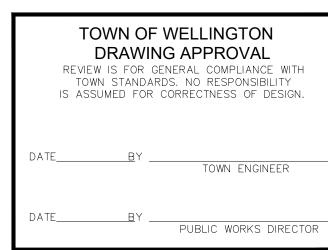






**INLET PROTECTION** 





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CLASSIFICATION AND GRADATION OF ORDINARY RIPRAP % SMALLER THAN GIVEN SIZE INTERMEDIATE DIMENSION RIPRAP (IN POUNDS) (INCHES) DESIGNATION TYPE VL 50-70 35-50 2-10 TYPE L 70-100 50-70 35-50 2-10 70-100 50-70 35-50 2-10 TYPE H 50-70 35-50 2-10 50-70 35-50  ${\sf d_{50}}^*\!\!=\!\!$  MEAN PARTICLE SIZE. AT LEAST 50 PERCENT OF THE MASS SHALL BE STONES EQUAL TO OR LARGER THAN THIS DIMENSION. \*\* BURY ON 4 TO 1 SIDE SLOPES OR GROUT ROCK IF SLOPES ARE STEEPER. GRADATION FOR FILTER MATERIAL UNDER RIPRAP % BY WEIGHT PASSING SQUARE MESH SIEVES TYPE II (CDOT CONCRETE SAND SPECIFICATION (CDOT CLASS A, (AASHTO M6) SECTION 703.01) SECTION 703.09) SIEVE SIZE 90-100 1-1/2" 3/4" 20-90 100 0-20 95-100 45-80 10-30 2-10 0-2 0-3 RIP-RAP GRADATION & BEDDING GRADATION TABLE 4-10 TOWN OF WELLINGTON, COLORADO March 2015

TABLE 5-1 THICKNESS REQUIREMENTS FOR GRANULAR BEDDING

	MINIMUM BEDDING THICKNESS (INCHES)			
RIPRAP DESIGNATION	FINE GRAII	NED SOILS*	COURSE GRAINED SOILS	
	TYPE I	TYPE II	TYPE II	
L, G, SM	4	4	6	
М	4	4	6	
Н	4	6	8	
VH	4	6	8	

LAYER OF TYPE II BEDDING SHALL NOT BE PERMITTED AT DROP STRUCTURES. USE OF A COMBINATION OF FILTER FABRIC AND TYPE II BEDDING AT DROP STRUCTURES IS ACCEPTABLE, SEE SECTION 5.3.2 FOR USE OF FILTER FABRIC AT DROP STRUCTURES.

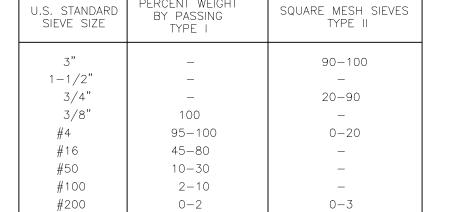
\*\* FIFTY PERCENT OR MORE BY WEIGHT RETAINED ON THE #40 SIEVE.

TABLE 5-2 CLASSIFICATION AND GRADATION OF ORDINARY RIPRAP

ABLE 3-2 CLASSITICATION AND GRADATION OF ORDINARY RIFTRAF					
RIPRAP DESIGNATION	% SMALLER THAN GIVEN SIZE BY WEIGHT	INTERMEDIATE ROCK DIMENSION (INCHES)	d <sub>50</sub> (INCHES)		
TYPE VL	70-100 50-70 35-50 2-10	12 9 6 2	6**		
TYPE L	70-100 50-70 35-50 2-10	15 12 9 3	9**		
TYPE M	70-100 50-70 35-50 2-10	21 18 12 4	12		
TYPE H	100 50-70 35-50 2-10	30 24 18 6	18		
TYPE VH	100 50-70 35-50 2-10	42 33 24 9	24		

\* d<sub>50</sub> =MEAN PARTICLE SIZE

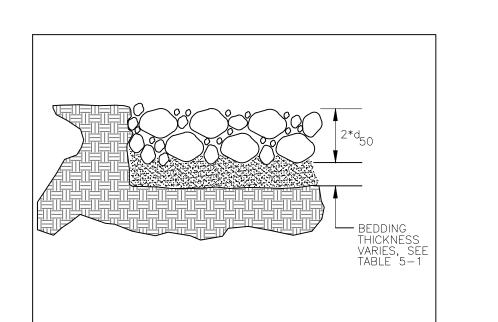
\*\* BURY TYPES "VL" AND "L" WITH NATIVE TOP SOIL AND REVEGETATE TO PROTECT FROM



SQUARE MESH SIEVES

TABLE 5-3 GRADATION FOR GRANULAR BEDDING

PERCENT WEIGHT



RIPRAP INSTALLATION DETAIL

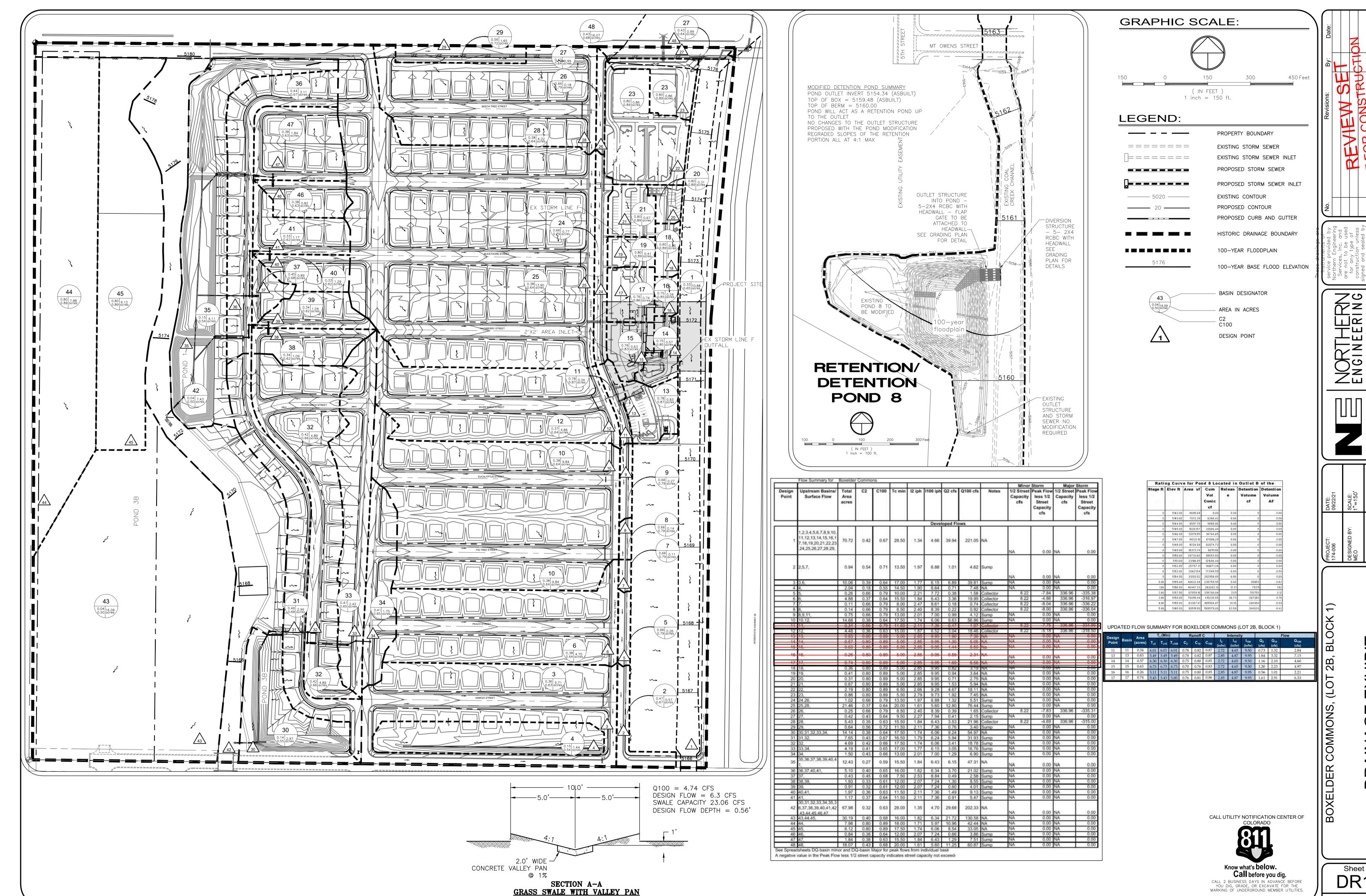


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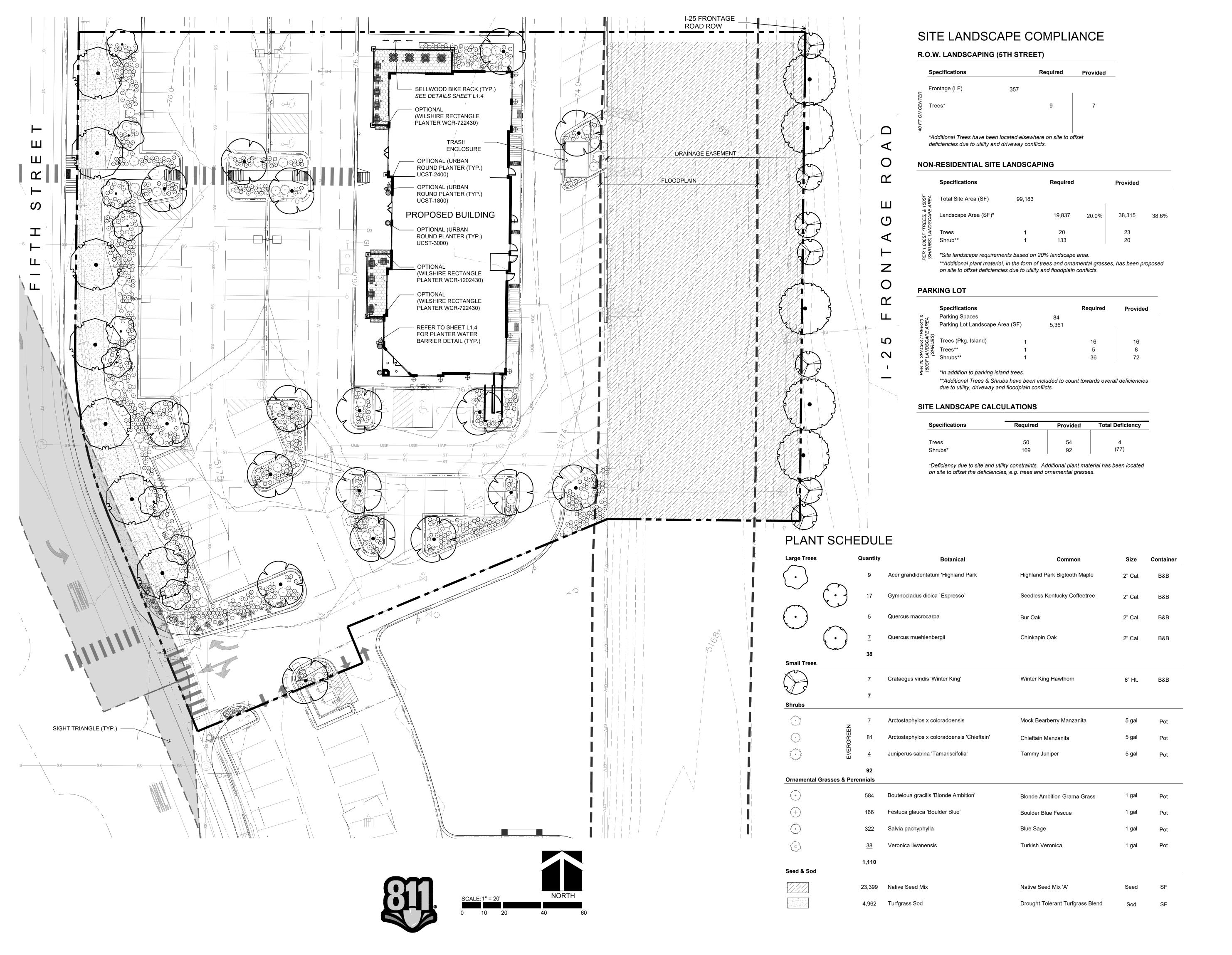
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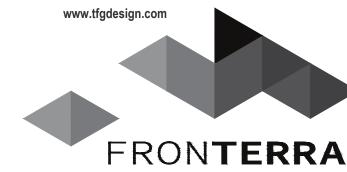
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DR1 12 of 26

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LANDSCAPE ARCHITECTURE

TFG Design, LLC P.O. Box Loveland CO 80539 (970) 669.3737 josh@fronterra.design

OWNER:
Andrew Rauch
FR Companies
125 South Howes Street
Fort Collins, Colorado 80521

125 South Howes Street Fort Collins, Colorado 80521 andrew@fr-corp.com

OPMENT PLAN

7440 5TH STREET, I

7440 5TH S WELLINGTON,

PROJECT INFORMATION:

DATE: 20210629

PHASE: SDP

REVISIONS:
2021.09.22 TOWN COMMENTS

PROJECT NUMBER: 177-2101WL

BOX

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LANDSCAPE PLAN

SHEET NUMBER:

L1.1

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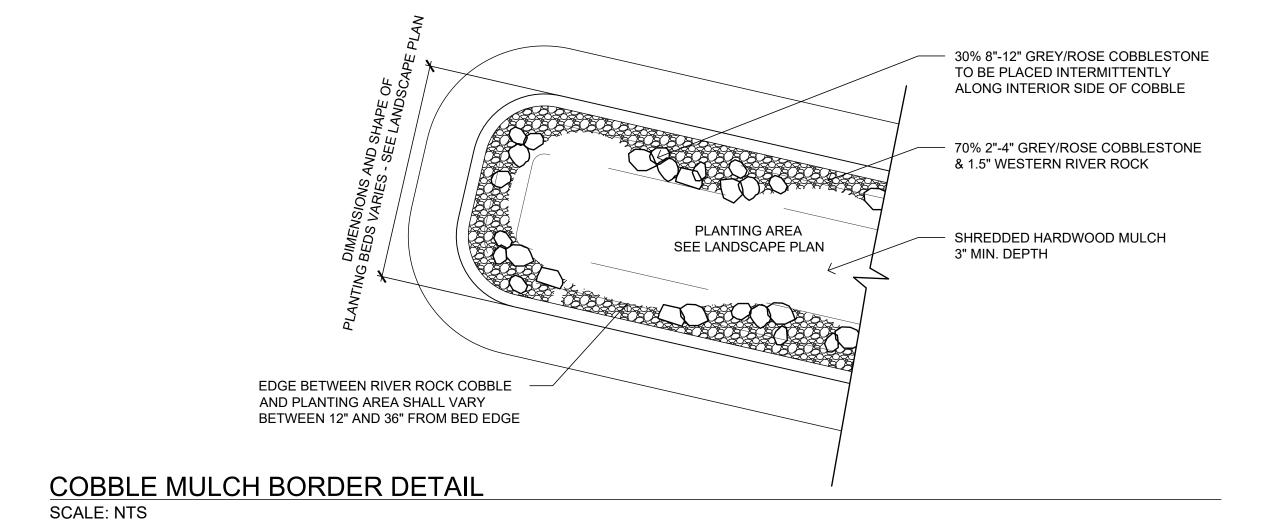
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# GENERAL LANDSCAPE NOTES

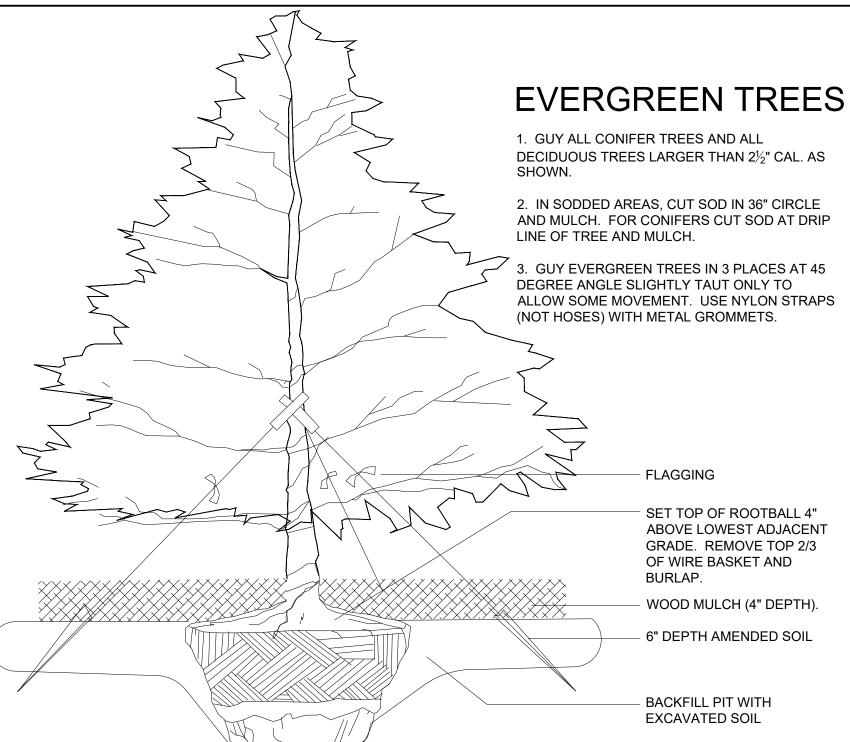
- 1. PLANT QUALITY: ALL PLANT MATERIAL SHALL BE A-GRADE OR NO. 1 GRADE FREE OF ANY DEFECTS, OF NORMAL HEALTH, HEIGHT, LEAF DENSITY AND SPREAD APPROPRIATE TO THE SPECIES AS DEFINED BY THE AMERICAN ASSOCIATION OF NURSERYMEN (AAN) STANDARDS. ALL TREES SHALL BE BALL AND BURLAP OR EQUIVALENT. TO ACHIEVE A MORE NATURAL LANDSCAPE CHARACTER, ALL TREES & LARGE SHRUBS OF THE SAME VARIETY SHALL BE INSTALLED IN A RANGE OF SIZES, WHILE STILL MEETING THE MINIMUM SIZE REQUIREMENTS OUTLINED IN THE PLANT SCHEDULE.
- 2. ALL PLANTING BED EDGES ADJACENT TO TURF AREAS SHALL BE EDGED WITH STEEL EDGING PER INCLUDED SPECIFICATIONS.
- 3. IRRIGATION: ALL LANDSCAPE AREAS WITHIN THE SITE INCLUDING TURF, SHRUB BEDS AND TREE AREAS SHALL BE IRRIGATED WITH AN AUTOMATIC IRRIGATION SYSTEM. THE IRRIGATION PLAN MUST BE REVIEWED AND APPROVED BY THE TOWN OF WELLINGTON WATER UTILITIES DEPARTMENT PRIOR TO THE ISSUANCE OF A BUILDING PERMIT. ALL TURF AREAS SHALL BE IRRIGATED WITH AN AUTOMATIC POP-UP IRRIGATION SYSTEM. ALL SHRUB BEDS AND TREES, INCLUDING IN NATIVE SEED AREAS, SHALL BE IRRIGATED WITH AN AUTOMATIC DRIP (TRICKLE) IRRIGATION SYSTEM, OR WITH AN ACCEPTABLE ALTERNATIVE APPROVED BY THE TOWN WITH THE IRRIGATION PLANS. THE IRRIGATION SYSTEM SHALL BE ADJUSTED TO MEET THE WATER REQUIREMENTS OF THE INDIVIDUAL PLANT MATERIAL AND INCLUDE AN AUTOMATIC RAIN SENSOR.
- 4. TOPSOIL: TO THE MAXIMUM EXTENT FEASIBLE, TOPSOIL THAT IS REMOVED DURING CONSTRUCTION ACTIVITY SHALL BE CONSERVED FOR LATER USE ON AREAS REQUIRING REVEGETATION AND LANDSCAPING.
- 5. SOIL AMENDMENTS: SOIL AMENDMENTS SHALL BE PROVIDED AND DOCUMENTED IN ACCORDANCE WITH TOWN OF WELLINGTON STANDARDS. THE SOIL IN ALL LANDSCAPE AREAS, INCLUDING PARKWAYS AND MEDIANS, SHALL BE THOROUGHLY LOOSENED TO A DEPTH OF NOT LESS THAN EIGHT(8) INCHES AND SOIL AMENDMENT SHALL BE THOROUGHLY INCORPORATED INTO THE SOIL OF ALL LANDSCAPE AREAS TO A DEPTH OF AT LEAST SIX(6) INCHES BY TILLING, DISCING OR OTHER SUITABLE METHOD, AT A RATE OF AT LEAST THREE (3) CUBIC YARDS OF SOIL AMENDMENT PER ONE THOUSAND (1,000) SQUARE FEET OF LANDSCAPE AREA. PRIOR TO THE ISSUANCE OF ANY CERTIFICATE OF OCCUPANCY, A WRITTEN CERTIFICATION MUST BE SUBMITTED TO THE CITY THAT ALL PLANTED AREAS, OR AREAS TO BE PLANTED, HAVE BEEN THOROUGHLY LOOSENED AND THE SOIL AMENDED, CONSISTENT WITH THE REQUIREMENTS SET FORTH IN TOWN OF WELLINGTON MUNICIPAL CODE.
- 6. INSTALLATION AND GUARANTEE: ALL LANDSCAPING SHALL BE INSTALLED ACCORDING TO SOUND HORTICULTURAL PRACTICES IN A MANNER DESIGNED TO ENCOURAGE QUICK ESTABLISHMENT AND HEALTHY GROWTH. ALL LANDSCAPING FOR EACH PHASE MUST BE EITHER INSTALLED OR THE INSTALLATION MUST BE SECURED WITH AN IRREVOCABLE LETTER OF CREDIT, PERFORMANCE BOND, OR ESCROW ACCOUNT FOR 125% OF THE VALUATION OF THE MATERIALS AND LABOR PRIOR TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY FOR ANY BUILDING IN SUCH PHASE.
- 7. MAINTENANCE: TREES AND VEGETATION, IRRIGATION SYSTEMS, FENCES, WALLS AND OTHER LANDSCAPE ELEMENTS WITH THESE FINAL PLANS SHALL BE CONSIDERED AS ELEMENTS OF THE PROJECT IN THE SAME MANNER AS PARKING, BUILDING MATERIALS AND OTHER SITE DETAILS. THE APPLICANT, LANDOWNER OR SUCCESSORS IN INTEREST SHALL BE JOINTLY AND SEVERALLY RESPONSIBLE FOR THE REGULAR MAINTENANCE OF ALL LANDSCAPING ELEMENTS IN GOOD CONDITION. ALL LANDSCAPING SHALL BE MAINTAINED FREE FROM DISEASE, PESTS, WEEDS AND LITTER, AND ALL LANDSCAPE STRUCTURES SUCH AS FENCES AND WALLS SHALL BE REPAIRED AND REPLACED PERIODICALLY TO MAINTAIN A STRUCTURALLY SOUND CONDITION.
- 8. REPLACEMENT: ANY LANDSCAPE ELEMENT THAT DIES, OR IS OTHERWISE REMOVED, SHALL BE PROMPTLY REPLACED IN ACCORDANCE WITH THE REQUIREMENTS OF THESE PLANS.
- 9. THE FOLLOWING SEPARATIONS SHALL BE PROVIDED BETWEEN TREES/SHRUBS AND UTILITIES:

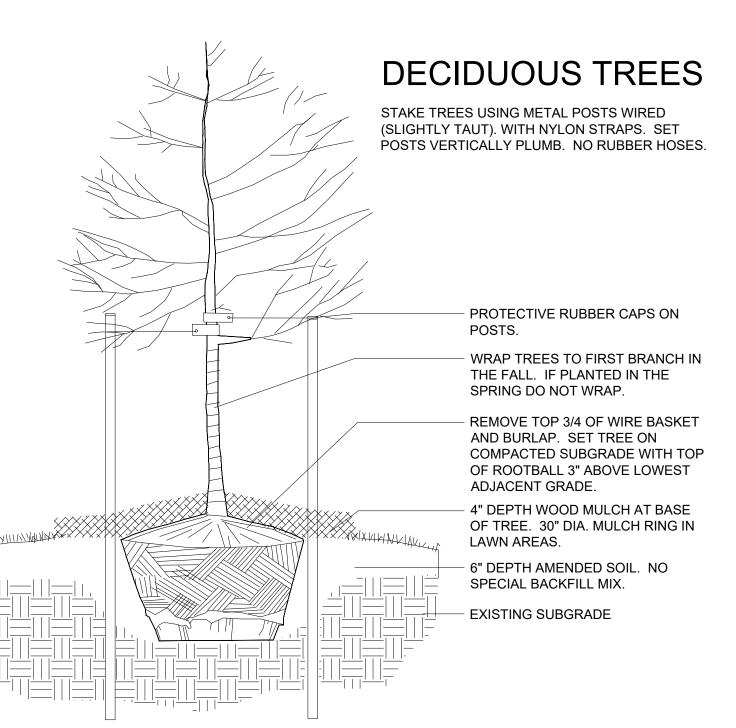
10 FEET BETWEEN TREES AND PUBLIC WATER AND SANITARY SEWER MAIN LINES 5 FEET BETWEEN TREES AND PUBLIC WATER AND SANITARY SEWER SERVICE LINES. 4 FEET BETWEEN SHRUBS AND PUBLIC WATER AND SANITARY SEWER LINES 4 FEET BETWEEN TREES AND GAS LINES

- 10. ALL STREET TREES SHALL BE PLACED A MINIMUM TEN (10) FEET AWAY FROM THE EDGES OF DRIVEWAYS, SIDEWALKS AND ALLEYS.
- 11. PLACEMENT OF ALL LANDSCAPING SHALL BE IN ACCORDANCE WITH THE SIGHT DISTANCE CRITERIA AS SPECIFIED BY THE TOWN OF WELLINGTON. NO STRUCTURES OR LANDSCAPE ELEMENTS GREATER THAN 24" SHALL BE ALLOWED WITHIN THE SIGHT DISTANCE TRIANGLE OR EASEMENTS WITH THE EXCEPTION OF DECIDUOUS TREES PROVIDED THAT THE LOWEST BRANCH IS AT LEAST 6' FROM GRADE. ANY FENCES WITHIN THE SIGHT DISTANCE TRIANGLE OR EASEMENT MUST BE NOT MORE THAN 42" IN HEIGHT AND OF AN OPEN DESIGN.
- 12. THE FINAL LANDSCAPE PLAN SHALL BE COORDINATED WITH ALL OTHER FINAL PLAN ELEMENTS SO THAT THE PROPOSED GRADING, STORM DRAINAGE, AND OTHER DEVELOPMENT IMPROVEMENTS DO NOT CONFLICT WITH NOR PRECLUDE INSTALLATION AND MAINTENANCE OF LANDSCAPE ELEMENTS ON THIS PLAN.
- 13. MINOR CHANGES IN SPECIES AND PLANT LOCATIONS MAY BE MADE DURING CONSTRUCTION -- AS REQUIRED BY SITE CONDITIONS OR PLANT AVAILABILITY. OVERALL QUANTITY, QUALITY, AND DESIGN CONCEPT MUST BE CONSISTENT WITH THE APPROVED PLANS. IN THE EVENT OF CONFLICT WITH THE QUANTITIES INCLUDED IN THE PLANT LIST, SPECIES AND QUANTITIES ILLUSTRATED SHALL BE PROVIDED. ALL CHANGES OF PLANT SPECIES AND LOCATION MUST HAVE WRITTEN APPROVAL BY THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
- 14. ALL PLANTING BEDS SHALL BE MULCHED TO A MINIMUM DEPTH OF THREE INCHES WITH WASHED RIVER COBBLE AND SHREDDED MULCH (SEE ADJACENT DETAIL) WITH A WEED BARRIER UNDERLAY.
- 15. TREE CANOPIES SHALL NOT CONFLICT WITH STREET LIGHTS.



TREE AND SHRUB INSTALLATION

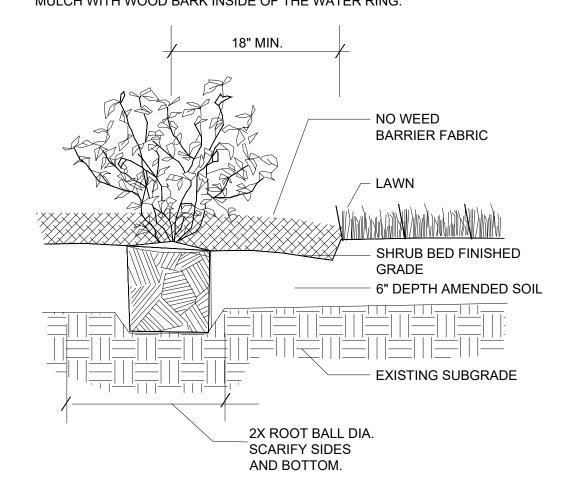




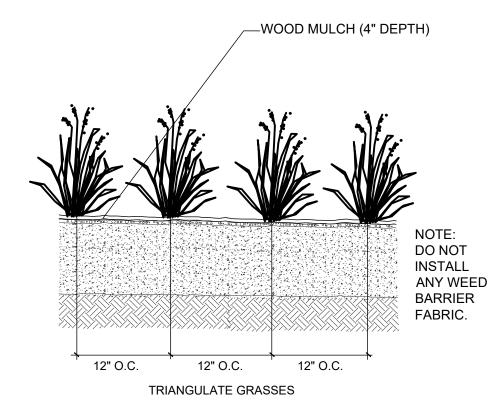
# SHRUBS

PLACE SHRUBS A MINIMUM OF 18" FROM PLANTING BED EDGE (STEEL HEADER, CURBS, WALKS, WALLS, ETC.) FOR 1 GALLON SHRUBS, 3' MINIMUM FOR 5 GALLON DECIDUOUS SHRUBS, 4' FOR CONIFER SHRUB

FOR 5 GALLON AND LARGER PLANT MATERIAL CONSTRUCT A 2" HIGH WATERING RING AROUND SHRUB AT EDGE OF PLANTING PIT. FOR 1 GALLON MATERIAL, CONSTRUCT A 2" X 18" DIA. WATER RING AND MULCH WITH WOOD BARK INSIDE OF THE WATER RING.



# ORNAMENTAL GRASSES



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FRONTERRA

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/ELOPMENT PLAN

7440 5TH STRI WELLINGTON, CO

PROJECT INFORMATION:
PROJECT NUMBER: 177-2101WL
DATE: 20210629
PHASE: SDP

REVISIONS: 2021.09.22 TOWN COMMENTS

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LANDSCAPE NOTES & DETAILS

SHEET NUMBER:

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2. COBBLE MULCH: SEE DETAIL SHEET L1.2. SUBMIT SAMPLE.

3. EDGING: ALL BEDS ADJACENT TO TURF AREAS TO BE EDGED WITH STEEL EDGING: STEEL HEADER 1/8" MIN. THICKNESS X 4" DEPTH, FABRICATED IN SECTIONS OF STANDARD LENGTHS, WITH LOOPS STAMPED FROM OR WELDED TO FACE OF SECTIONS TO RECEIVE STAKES. 1" X 24" SIZE STRAP STEEL STAKES OR EQUAL. SUBMIT SAMPLE.

4. WOOD MULCH: DOUBLE SHREDDED WOOD MULCH; POLE PEELINGS FROM CEDAR TREES ONLY. MULCH SHALL BE DARK BROWN IN COLOR AND FINELY SHREDDED. MULCH SHALL BE FREE FROM NOXIOUS WEED SEED AND FOREIGN MATERIAL HARMFUL TO PLANT LIFE. CHIPPER CHIPS, PINE POLE PEELINGS OR OTHER ANGULAR BARK CHIPS ARE NOT ACCEPTABLE. SUBMIT SAMPLE.

5. TREE STAKES: 8-FOOT LONG, 2-INCH DIAMETER PRESSURE TREATED LODGE POLE PINE STAKES (OR METAL "T" POSTS AS ALLOWED BY LANDSCAPE ARCHITECT. APPROVAL REQUIRED PRIOR TO INSTALLATION.)

6. GUY ANCHORS: 24-INCH LONG METAL "T" POSTS.

7. GUYING AND STAKING WIRE: GALVANIZED IRON OR STEEL 12-GUAGE WIRE.

8. WEBBING: 2-INCH NYLON WEBBING OR RUBBERIZED CLOTH.

9. TREE WRAP: 4-INCH MINIMUM WIDTH COMMERCIAL TREE WRAP.

10. SAFETY CAPS: INDUSTRY STANDARD (FOR METAL "T" POST ONLY)

11. COMPOST: A TOTALLY ORGANIC PRODUCT THAT HAS BEEN AEROBICALLY AND NATURALLY PROCESSED WITHOUT THE ADDITION OF COARSE WOOD CHIPS, IN SUCH A MANNER AS TO MAINTAIN A CONSISTENT TEMPERATURE OF 140 DEGREES FAHRENHEIT OR GREATER FOR A PERIOD OF TIME SUFFICIENT TO CREATE THE FOLLOWING CHARACTERISTICS MEASURED BY DRY WEIGHT: MAXIMUM ALLOWABLE ORGANIC MATTER: 60% ORGANIC MATTER TO NITROGEN RATIO: 25:1 TO 30:1; PH: 7 TO 8 PHSALTS: 2.0 TO 3.0 MMHOS; LESS THAN 25% INORGANIC MATTER; LESS THEN 1% SOIL, DIRT OR SAND; MAXIMUM PARTICLE SIZE OF ½ INCH DIAMETER. ERADICATION OF ALL HARMFUL WEED SEEDS, PATHOGENS AND BACTERIA; A NON-OFFENSIVE EARTHLY SMELL.

12. FERTILIZER: FERTILIZER FOR TURF SHALL BE COMMERCIAL TYPE, OF UNIFORM COMPOSITION, FREE FLOWING, AND CONFORMING TO APPLICABLE STATE AND FEDERAL LAWS. SUBMIT MANUFACTURER'S GUARANTEED ANALYSIS. FORMULATED FERTILIZER ANALYSIS SHALL BE SUBMITTED TO OWNER'S REPRESENTATIVE FOR REVIEW AND SHALL BE BASED UPON RECOMMENDATIONS MADE BY SOIL LAB. CONTRACTOR SHALL SUBMIT SOIL SAMPLE TO SOIL LAB FOR ANALYSIS AND FERTILIZER RECOMMENDATIONS.

IF SOIL TYPES ARE SIMILAR IN STRUCTURE, THE CONTRACTOR MAY USE A CONSISTENT FORMULATED FERTILIZER FOR THE ENTIRE SITE AREA. HOWEVER, IF SOIL STRUCTURES ARE VASTLY DIFFERENT, A FORMULATED FERTILIZER FOR EACH SPECIFIC SITE AREA WILL BE REQUIRED.

FERTILIZER FOR TREE AND SHRUB, BACKFILL MIX, AND GROUND COVER AREAS SHALL BE OSMOCOTE SIERRABLEN, 9 MONTH SLOW-RELEASE FERTILIZER.

13. BLUEGRASS SOD: BLUEGRASS SOD SHALL CONTAIN THE FOLLOWING SEED MIX OR ALTERNATIVE AS APPROVED BY THE TOWN OF WELLINGTON:

Turfgrass sod shall be the BTF-Texas Mix from Bittersweet Turf Farms

ungrass sou shall be the <u>bir-lexas Mix Holli bitterswer</u>

33% SPF30 Texas/Kentucky Hybrid Bluegrass 34% Solar Green Texas/Kentucky Hybrid Bluegrass 33% Bandera Texas/Kentucky Hybrid Bluegrass

SOD SHALL BE A MINIMUM OF ¾ INCH THICK, HARVESTED IN ROLLS FERTILIZED TWO TO THREE WEEKS BEFORE CUTTING, AND SHALL BE CUT NOT MORE THAN ONE DAY PRIOR TO PLANTING. SOD SHALL BE ONE YEAR OLD, MINIMUM, GROWN UNDER INTENSIVE CARE AND CULTIVATION TO PRODUCE A THICK, EVEN STAND OF GRASS. NATIVE SEED MIX A: ALL SEEDING SHALL BE COMPLETED BETWEEN APRIL 15 AND MAY 31, OR BETWEEN SEPTEMBER 1 AND OCTOBER 15.

14. NATIVE SEEDED AREAS SHALL BE SEEDED WITH THE FOLLOWING BLEND OR ALTERNATIVE AS APPROVED BY THE TOWN OF WELLINGTON:

NATIVE SEED AREA SHALL BE SEEDED WITH SHORTGRASS PRAIRIE NATIVE SEED MIXTURE. BE SURE TO OVERSEED ANY SWALES OR MOIST AREAS WITHIN THIS SEEDING TYPE WITH THE MOIST SWALE SEED MIXTURE:

# SHORTGRASS PRAIRIE NATIVE SEED MIX: SEEDING RATE: Irrigated 30.75 lbs/acre

COMMON NAME	SCIENTIFIC NAME	VARIETY	SEED RATE (PLS LBS/ACRE)
Buffalo grass	Buchloe dactyliodes	Native, Bison or Texoka	14
Blue grama	Chondrosum gracile	Lovington, Alma, Native or Hachita	12
Sand dropseed	Sporobolus cryptandrus	Common	4
Fringed sage	Artemisia frigida	Common	0.0625
Purple prairie clover	Dalea purpurea	Common	0.25
Gayfeather	Liatris punctata	Common	0.25
Tansy aster	Machaeranthera tanacetafolia	Common	0.1875

15. NATIVE SEED MIX B: ALL SEEDING SHALL BE COMPLETED BETWEEN APRIL 15 AND MAY 31, OR BETWEEN SEPTEMBER 1 AND OCTOBER 15. NATIVE SEEDED AREAS SHALL BE SEEDED WITH THE FOLLOWING BLEND OR ALTERNATIVE AS APPROVED BY THE TOWN OF WELLINGTON:

Native seed area shall be seeded with MOIST SWALE SEED MIXTURE:

MOIST SWALE SEED MIX: SEEDING RATE: Irrigated 15.35 lbs/acre VARIETY SEED RATE **COMMON NAME** SCIENTIFIC NAME (PLS LBS/ACRE) 0.5 Woolly sedge Carex lanuginosa 0.1 Nebraska sedge Carex nebrascensis Native 1.5 Chondrosum gracile Lovington, Alma, Native or Hachita

Blue grama Buffalo grass Buchloe dactyliodes Native, 0.5 Bison or Texoka Inland saltgrass Distichlis stricta Native 0.5 Baltic rush Juncus balticus 0.1 Prairie cordgrass Spartina pectinata Alkali sacaton Sporobolus airoides Native Switchgrass Panicum virgatum Blackwell Western wheatgrass Pascopyrum smithii Arriba or Rosana 0.05 Aster laevis Achillea millefolium 0.05 Yarrow Western Prairie coneflower Ratibida columnifera 0.05

16. TREES, SHRUBS, AND GROUND COVERS: PLANT MATERIALS SHALL BE A FIRST-CLASS REPRESENTATIVE OF ITS SPECIES; HEALTHY, WELL BRANCHED AND WELL PROPORTIONED IN RESPECT TO HEIGHT AN WIDTH RELATIONSHIPS; FREE FROM DISEASE, INJURY, INSECTS, AND WEED ROOTS; AND CONFORMING TO THE REQUIREMENTS OF THE COLORADO NURSERY ACT. (SEE LANDSCAPE CONTRACTORS OF COLORADO STANDARD SPECIFICATIONS FOR APPROPRIATE SECTIONS OF THE NURSERY ACT). ALL PLANTS SHALL BE NURSERY STOCK FROM GROWERS LOCATED IN USDA HARDINESS ZONES 1, 2, 3 OR 4.BOTANIC AND COMMON NAMES: PLANT NAMES GIVEN IN THE PLANT LIST ARE IN CONFORMANCE WITH STANDARD HORTICULTURAL PRACTICE IN THIS AREA. PLANTS ARE TO BE DELIVERED TO THE SITE WITH TAGS BEARING THE BOTANIC NAME AS INDICATED BY THE PLANT LIST.

### INSTALLATION:

CLEARING. PRIOR TO ANY SOIL PREPARATION, EXISTING VEGETATION TO REMAIN AND WHICH MIGHT INTERFERE WIT THE SPECIFIED SOIL PREPARATION SHALL BE MOWED, GRUBBED, RAKED, AND THE DEBRIS REMOVED FROM THE SITE. PRIOR TO OR DURING GRADING OR TILLAGE OPERATION, THE GROUND SURFACE SHALL BE CLEARED OF MATERIALS THAT MIGHT HINDER FINAL OPERATIONS.

PREPARE ALL AREAS TO BE PLANTED AS FOLLOWS:

RIP ALL AREAS TO BE PLANTED, SEEDED AND/OR SODDED TO A MINIMUM OF 8 INCHES IN TWO DIRECTIONS USING AN AGRICULTURAL RIPPER WITH TINES SPACED AT NO GREATER THAN 18 INCHES. AREAS ADJACENT TO WALKS, STRUCTURES CURBS, ETC, WHERE THE USE OF LARGE MECHANICAL EQUIPMENT IS DIFFICULT, SHALL BE WORKED WITH SMALLER EQUIPMENT OR BY HAND.

SOIL PREPARATION: SPREAD 3 CY/1000 SF OF COMPOST AND SUFFICIENT FERTILIZER TO MEET REQUIREMENTS OF SOIL ANALYSIS OVER ALL AREAS TO BE SEEDED, SODDED, AND/OR PLANTED W/TREES, SHRUB BED AND GROUND COVER. INCORPORATE COMPOST BY DISKING OR ROTOTILLING INTO THE TOP 6 INCHES OF SOIL. OBTAIN A UNIFORM MIXTURE WITH NO POCKETS OF SOIL OR AMENDMENTS REMAINING.

TREE AND SHRUB PLANTING:

1. SUBSTITUTIONS. ANY PLAN SUBSTITUTIONS ARE TO BE APPROVED BY LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.

2. ESTABLISHED LOCATION: STAKE TREES AND FLAG OR SET OUR ALL SHRUBS IN LOCATIONS SHOWN ON THE PLANS PRIOR TO INSTALLATION FOR REVIEW BY OWNER. THE FOLLOWING ARE MINIMUM DISTANCES THAT PLANT MATERIALS CAN BE PLACED FROM ADJACENT WALLS, FENCES OR PAVED AREAS:

LARGE SHRUBS: 4 FEET

MEDIUM SHRUBS: 2-1/2 FEET
PERENNIALS, GRASSES AND GROUND COVERS: 18 INCHES

3. PLANTING PITS:

DIG PLANTING FITS.

DIG PLANTING PITS A MINIMUM OF 2 TIMES AS WIDE AS DIAMETER OF ROOT BALL OR CONTAINER, AND A DEPTH SUFFICIENT TO ALLOW TOP OF ROOT BALL AT TRUNK TO SIT A MINIMUM OF 3" ABOVE SURROUNDING GRADE FOR SHRUBS.

INCORPORATE COMPOST BY DISKING OR ROTOTILLING INTO THE TOP 4 TO 6 INCHES OF SOIL. OBTAIN A UNIFORM MIXTURE WITH NO POCKETS OF SOIL OR AMENDMENTS REMAINING.

RESTORE THE FINE GRADE OF ALL AREAS TO BE PLANTED, SEEDED AND/OR SODDED WITH FLOAT DRAG TO REMOVE IRREGULARITIES RESULTING FROM TILLING OPERATIONS. FLOAT DRAG TWO DIRECTIONS. REMOVE ANY ADDITIONAL STONES OVER 1-1/2 INCHES THAT HAVE COME TO THE SURFACE. UPON COMPLETION OF FINISH GRADING OPERATIONS, THE CONTRACTOR MUST PROVIDE A FINISH LANDSCAPE GRADE THAT SHALL CONFORM TO THE GRADES AND ELEVATIONS SHOWN ON THE ENGINEERING DRAWINGS. CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE IN ALL LANDSCAPE AREAS.

SHRUBS. ROUGHEN SIDES OF THE PIT TO REMOVE ANY COMPACTING OR GLAZING. LOOSEN SOIL AT BOTTOM OF PIT TO A MINIMUM DEPTH OF SIX INCHES. MIX LOOSENED SOIL WITH SPECIFIED BACKFILL.

4. BACKFILL MATERIAL: TREE AND SHRUB PLANTING PITS SHALL BE BACKFILLED WITH THE FOLLOWING MIX:

75% TOPSOIL BY VOLUME (SOIL EXCAVATED FROM PLANTING PITS). 25% COMPOST BY VOLUME.

THE SPECIFIED BACKFILL MATERIALS SHALL BE PRE-MIXED USING INDUSTRY ACCEPTED TECHNIQUE IN ORDER TO OBTAIN A UNIFORM, EVENLY BLENDED CONSISTENCY, FREE FROM POCKETS OF UNBLENDED MATERIAL AND CLODS OR STONES GREATER THAN TWO INCHES IN DIAMETER. BACKFILL MIX SHALL BE DELIVERED TO EACH PLANTING PIT AFTER MIXING HAS OCCURRED.

PLANTING:

1. REMOVE STOCK FROM CONTAINER. DO NOT BREAK THE ROOT BALL. A SPADE SHALL NOT BE USED. SCARIFY SIDES AND BOTTOM OF ROOT BALL.

2. PLACE BACKFILL MIX INTO PLANTING PIT TO A DEPTH SUCH THAT THE PLANT, WHEN PLANTED, WILL BE THREE INCHES ABOVE FINISH GRADE FOR DECIDUOUS TREES, FOUR TO SIX INCHES FOR CONIFEROUS TREES, AND TWO INCHES ABOVE FINISH GRADE FOR ALL SHRUBS

3. UNTIE AND REMOVE BURLAP FROM TOP THIRD OF ROOT BALL ON BALLED AND BURLAPPED MATERIAL. REMOVE WIRE BASKETS FROM TOP AND MINIMUM OF 2/3 OF ALL SIDE OF ROOT BALL.

4. BACKFILL ONE-HALF OF PIT WITH BACKFILL MIXTURE AND WATER IN THOROUGHLY BEFORE PLACING ANY MORE BACKFILL. DO NOT WORK WET SOIL.

5. BACKFILL THE REST OF THE PLANTING PIT WITH BACKFILL MIXTURE AND TAMP TO COMPACT. WATER IN THOROUGHLY. DO NOT WORK WET SOIL APPLY SLOW RELEASE FERTILIZER, PER MANUFACTURER'S DIRECTION OF SIZE OF PLANT MATERIAL, BY SPREADING EVENLY OVER THE TOP OF THE ENTIRE PLANTING PIT.

6. STAKE OR GUY ALL TREES IN A TRUE VERTICAL POSITION. WRAP DECIDUOUS TREES BOTTOM TO TOP. STAPLE OR TACK IN PLACE AT TOP. WRAP APPROXIMATELY NOVEMBER 15 AND REMOVE APPROXIMATELY MAY 15.

7. IF TREES ARE PLANTED IN A SPADE DUG HOLE, THEY SHALL BE DEEP WATERED WITH A WATERING NEEDLE ANGLING FROM THE INSIDE OF THE BALL OUT THROUGH THE PERIMETER OF THE SOIL.

WEED BARRIER INSTALLATION

1. WEED BARRIER SHALL BE PLACED IN ALL SHRUB BED AREAS WHERE 5-GALLON SHRUB MATERIAL IS USED OR WHERE NOTED IN PLAN AND DETAILS. AT ALL EDGES OF CURBS, WALLS, STRUCTURES, PAVEMENTS, AND HEADERS, WEED BARRIER SHALL BE SECURED WITH 11-GAUGE, 6-INCH LONG STAPLES AT 18 INCHES O.C. AT ALL EDGES.

2. NO WEED BARRIER SHALL BE PLACED IN AREAS RECEIVING ONE GALLON AND SMALLER PLANT MATERIAL.

3. NO WEED BARRIER SHALL BE PLACED IN SOIL PLANTING RINGS OF DECIDUOUS AND CONIFEROUS TREES PLANTED IN SODDED OR SEEDED AREAS.

STEEL HEADER CONSTRUCTION

1. LAYOUT STEEL HEADER IN LOCATIONS SHOWN ON PLANS AND RECEIVE REVIEW OF OWNER PRIOR TO INSTALLATION. LOCATE BY SCALING OFF OF PLAN. INSTALL PLUMB WITH GRADES MAINTAINING A MINIMUM CONSTANT HEIGHT FLUSH WITH ADJACENT TURF AREAS.

INSTALL USING STRAIGHT LINES AND SMOOTH CURVES. STAKE STEEL HEADER USING PINS OF TWO FEET O.C. PROVIDE DRAINAGE SLITS OR HOLES AT SUFFICIENT INTERVALS TO ALLOW EXCESS WATER TO DRAIN AWAY.

LAYING SOD

1. AFTER SOIL PRI

AFTER SOIL PREPARATION, ROLL THE AREA TO AN EVENLY COMPACTED, FIRM SOIL

2. REPLACE HARD AND SOFT AREAS.

SCARIFY SURFACE TO A DEPTH OF 3/8 INCH.

KEEP SOIL BED MOIST DURING LYING OF SOD.

LAY SOD SMOOTHLY; EDGE TO EDGE, AND WITH STAGGERED JOINTS. BUTT EDGES

TIGHTLY.

6. WATER SOD LIGHTLY AS LAYING PROGRESSES TO PREVENT DRYING OF SOD.

7. ROLL SOD DIAGONALLY WITH A LIGHT ROLLER, LEVELING IRREGULARITIES AND

SEALING JOINTS.

8. IN ORDER TO FACILITATE DRAINAGE, PLACE SOD FLUSH WITH PAVEMENT ON THE UPHILL SIDE OF PAVEMENT. ON THE DOWNHILL SIDE OF PAVEMENT, PLACE SOD SLIGHTLY BELOW PAVEMENT SURFACE.

9. HOLD SOD BACK FROM TREE TRUNKS AS SHOWN IN DETAILS.

SEEDING

1. TIME OF SEEDING: UNLESS OTHERWISE APPROVED, ALL TURF SEEDING SHALL BE COMPLETED BETWEEN APRIL 15 AND MAY 31, OR BETWEEN SEPTEMBER 1 AND OCTOBER 15

2. PRIOR TO SEEDING, SOIL SHALL BE TESTED AND BE AMENDED PER THE SOIL TEST RESULT'S RECOMMENDATIONS.

3. DRILL SEEDING: DRILL SEED USING A DRILL IMPLEMENT EQUIPPED WITH THE FOLLOWING PREFERABLE FEATURES;

DEPTH BANDS - TO ALLOW SEEDING AT THE PROPER DEPTH
SEED BOX AGITATOR - TO PROMOTE SEED MIXING

SEED BOX BAFFLES - TO AID IN EVEN SEED DISTRIBUTION AMONG ROWS
SEED-METERING DEVICE - TO PROMOTE EVEN SEED DISTRIBUTION WITHIN ROWS
FURROW OPENERS - TO PERMIT PROPER SEED PLACEMENT FROM SEED SPOUTS, AND
DRAG CHAINS - TO AID IN SEED COVERAGE

THE DRILL WILL BE ADJUSTED TO PLANT SEED TO THE PROPER DEPTH. THE DEPTH OF SEEDING WILL BE APPROXIMATELY 0.25 TO 0.50 INCH. DRILL ROW SPACING WILL BE SET AT APPROXIMATELY 6 TO 8 INCHES. THE DRILL WILL THEN BE TOWED ACROSS THE SEEDBED TO COMPLETE THE PLANTING OPERATION. DRILL SEEDING WILL TAKE PLACE IMMEDIATELY FOLLOWING THE COMPLETION OF FINAL SEED BED PREPARATION TECHNIQUES.

4. BROADCAST SEEDING: BROADCAST SEEDING SHALL ONLY OCCUR IN AREAS INACCESSIBLE TO A DRILL SEEDER. BROADCAST SEED ONLY AFTER ALL TREES AND SHRUBS HAVE BEEN PLANTED IN THESE AREAS. BROADCAST SEEDING WILL BE ACCOMPLISHED USING HAND-OPERATION "CYCLONE-TYPE" SEEDERS OR ROTARY BROADCAST EQUIPMENT ATTACHED TO CONSTRUCTION OR RE-VEGETATION MACHINERY. ALL MACHINERY WILL BE EQUIPPED WITH METERING DEVICES. BROADCASTING BY HAND WILL BE ACCEPTABLE ON SMALL, ISOLATED SITES. WHEN BROADCAST SEEDING, PASSES WILL BE MADE OVER EACH SITE TO BE SEEDED IN A MANNER TO ENSURE AN EVEN DISTRIBUTION OF SEED. WHEN USING HOPPER TYPE EQUIPMENT, SEED SHOULD BE FREQUENTLY MIXED WITHIN THE HOPPER TO DISCOURAGE SEED SETTLING AND UNEVEN PLANTING DISTRIBUTION OF SPECIES.

5. BROADCAST SEEDING WILL TAKE PLACE IMMEDIATELY FOLLOWING THE COMPLETION OF FINAL SEEDBED PREPARATION TECHNIQUES. BROADCAST SEEDING SHOULD NOT BE CONDUCTED WHEN WIND VELOCITIES WOULD PROHIBIT EVEN SEED DISTRIBUTION. THE BROADCAST SEEDING RATE WILL BE TWICE THE RATE OF DRILL SEEDING.

6. HYDROSEEDING: MIX SPECIFIED SEED, FERTILIZER, AND FIBER MULCH (CONWED FIBERS HYDRO MULCH 2000 OR EQUAL) IN WATER, USING EQUIPMENT SPECIFICALLY DESIGNED FOR HYDROSEED APPLICATION. CONTINUE MIXING UNTIL UNIFORMLY BLENDED INTO HOMOGENEOUS SLURRY SUITABLE FOR HYDRAULIC APPLICATION.

APPLY SLURRY UNIFORMLY TO ALL AREAS TO BE SEEDED IN A ONE-STEP PROCESS. APPLY SLURRY AT A RATE SO THAT MULCH COMPONENT IS DEPOSITED AT NOT LESS THAN 2,000 LB/ACRE DRY WEIGHT, AND SEED COMPONENT IS DEPOSITED AT NOT LESS THAN THE SPECIFIED SEED-SOWING RATE.

MULCHING

MULCH FOLLOWING ALL SOIL PREPARATION AND PLANTING.

1. SHRUB BEDS: MULCH SHRUB BED PLANTING AREA WITH 4" LAYER OF WOOD MULCH.

2. PERENNIAL & ANNUAL BEDS: MULCH ALL ANNUAL, PERENNIAL AND GROUND COVER PLANTING AREAS WITH A 4" LAYER OF WOOD MULCH.

3. TREE PLANTING RINGS IN IRRIGATED TURF AREAS: MULCH ALL SOIL PLANTING RINGS OF DECIDUOUS AND CONIFEROUS TREES WITH A 4" LAYER OF WOOD MULCH EXCEPT THOSE TREES LOCATED WITHIN TURF AREAS. TREES LOCATED WITHIN TURF AREAS SHALL HAVE TURF ABUTTING THE ROOT CROWN.

FRONTERRA

ANDSCAPE ARCHITECTURE PLANNING

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**DCK 1 LOT 2**NL

VELOPMENT PLA

7440 5TF

PROJECT INFORMATION:
PROJECT NUMBER: 177-2101WL
DATE: 20210629
PHASE: SDP

REVISIONS: 2021.09.22 TOWN COMMENTS

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LANDSCAPE
SPECIFICATIONS

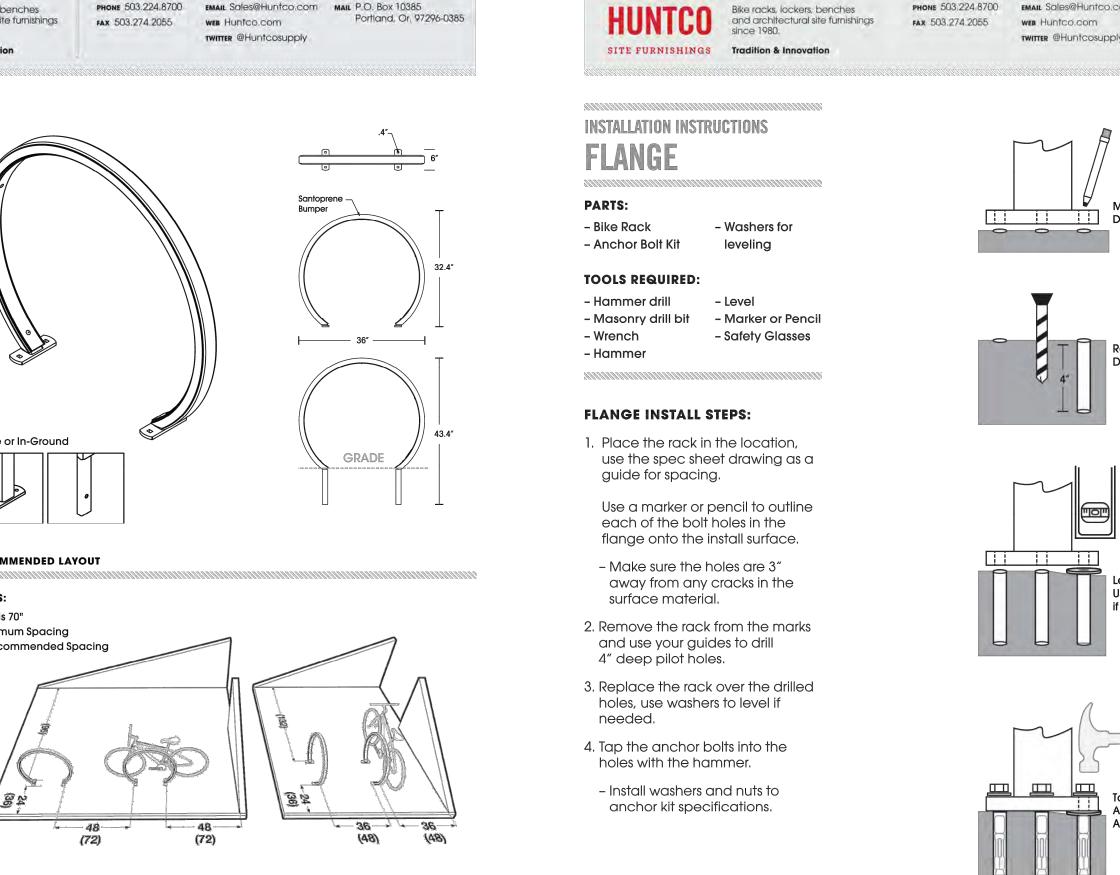
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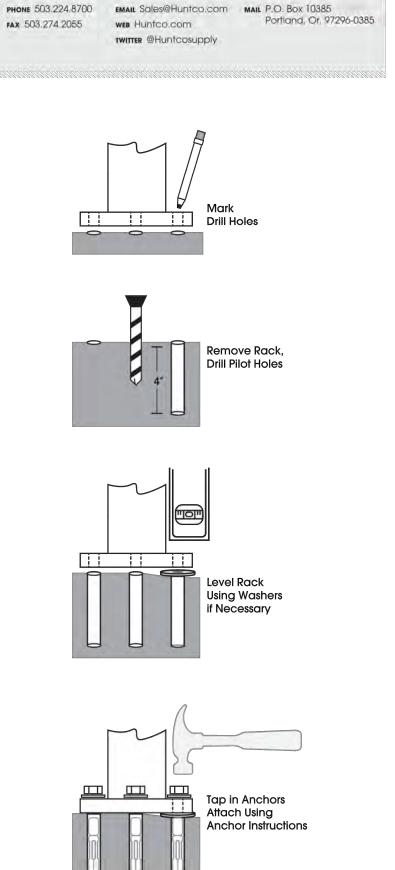
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Manufactured in the

Pacific Northwest



FOR QUESTIONS ABOUT INSTALLATION, CALL HUNTCO AT 1.800.547.5909



**INSTALLATION INSTRUCTIONS** IN-GROUND

**FLANGE PARTS:** 

- Bike Rack

**TOOLS REQUIRED:** - Concrete Core - 2" x 4" for use as drill (minimum 6" wide) Concrete

for filling (for existing concrete)

IN GROUND INSTALL STEPS:

- Place the rack in the location, use the spec sheet drawing as a guide for spacing.

FOR EXISTING CONCRETE:

1. Core concrete min. 6" diameter and 12" deep to clear the pins in the rack.

2. Fill the cored holes with wet concrete.

3. Place the rack in the holes, pushing out the excess.

5. Smooth excess concrete around

each leg.

FOR WET CONCRETE:

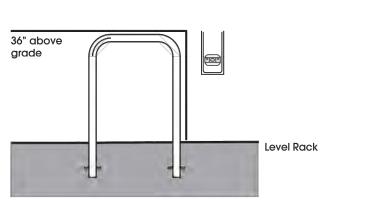
1. After locating proper spacing, press rack into the wet concrete. 2. Use a 2x4 to keep the rack off the ground as shown.

3. Smooth excess concrete around each leg.

FOR EXISTING CONCRETE: Mark Legs Core: 6"W by 12"D Fill with Epoxy or Cement 36" above grade Press Rack into Epoxy or Cement-filled holes. Level Rack



Smooth Excess Around Legs



Manufactured in the FOR QUESTIONS ABOUT INSTALLATION, CALL HUNTCO AT 1.800.547.5909 Pacific Northwest



www.tfgdesign.com FRONTERRA

LANDSCAPE ARCHITECTURE

**TFG Design, LLC** P.O. Box Loveland CO 80539 (970) 669.3737 josh@fronterra.design

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SITE DETAILS

SHEET NUMBER:

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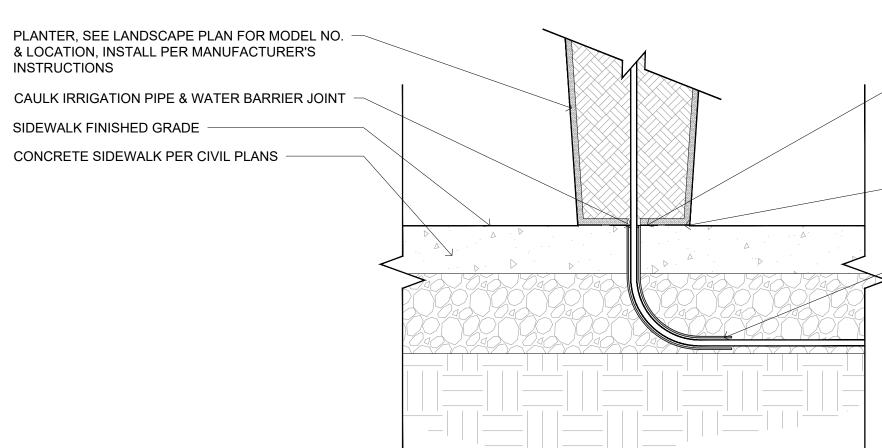
**BICYCLE RACK SPECIFICATIONS & DETAILS** 

Manufactured in the

Pacific Northwest

SCALE: NTS

SCALE: NTS



WATER BARRIER AT SLEEVE PENETRATION MINIMUM 3" OVERLAP, BACKER ROD TO FILL GAP BETWEEN SLEEVE & PIPE, ALLOW FOR LEVELING SHIMS AT PERIMETER OF PLANTER, CONSEAL CS-212 (0.065" THICKNESS), INSTALL PER MANUFACTURER'S INSTRUCTIONS

WEATHERPROOF, FLEXIBLE LEVELING SHIMS (MINIMUM 2MM THICKNESS) ON DOWNSTREAM SIDE TO ALLOW FOR DRAINAGE, TRIM BACK FROM EDGE

IRRIGATION PIPE & SLEEVE PER IRRIGATION PLANS

PLANTER WATER BARRIER DETAIL

### IRRIGATION SCHEDULE

### CHITER I 20-06-55  THEN ROTOR, GO OF DELP. ADJUSTABLE AND PH.  THEN ROTOR, GO OF DELP. ADJUSTABLE AND PH.  STANDARD MOZULE. LEGER BORN BY HARTIC SIED ARRAY SHALL BE PLASTIC RISERS. DRAIN CHECK YALVE.  STANDARD MOZULE. LEGER BORN BY HARTIC SIED ARRAY SHALL BE PLASTIC RISERS.  THEN ROTOR, GO OF SET THE BORN BY HARTIC SIED ARRAY SHALL BE PLASTIC RISERS. DRAIN CHECK YALVE.  STANDARD MOZULE. LEGER BORN. DRAIN CHECK YALVE.  STANDARD MOZULE. LEGER BORN. DRAIN CHECK YALVE.  SHALL BE PLASTIC RISERS.  MANUFACTURERMODELDESCRIPTION.  PREP YALVE. ASSUMBLY.  HANTER ICZ. 10. 25 DRIP CONTROL ZONE KIT. If CV.  GLODE YALVE WITH IT HALD OF HERE BYSTEM. PREDSULEE  REQUIZINON: SEPRI. HICK MARKET. 2 CPA TO 20 OPM.  15 O MERT STANDARD STEEL SCREEN.   MANUFACTURERMODELDESCRIPTION.  SEMOSTE CONTROL WALVE ASSEMBLY.  HANTER ICX-CPS. IF, 1 - 1/27, 2 AND OF FLASTIC  BLECTOR, REMOTE CONTROL VALVES, GLODE  COMMERCIAL MARKET.  COMMERCIAL MARKET HAS THE HALDED INLET/CUTLET. FOR COMMERCIAL MARKET AND HALDE WITH HELE REFURITY.   GUICK COUPLING WATM ASSEMBLY.  HANTER VALVE ASSEMBLY.  BURDLED PRESSURE BACKET. ON PREVIOUSE.  THE CESTOR SAND STANDERS STEEL, WITH I PAPE INLET, 1 - PECE BODY.   MASTER VALVE ASSEMBLY.  BURDLED PRESSURE BACKET. ON PREVIOUSE.  FIND SAND SAND STANDERS STEEL, WITH I PAPE INLET, 1 - PECE BODY.   ### PROCESSORY SHAPE DO MARCH MOC PROCESSORY  REDUCED PRESSURE BACKET. ON PREVIOUSE.  ### PROCESSORY SHAPE DO MARCH MOC PROCESSORY  REDUCED PRESSURE BACKET. ON PREVIOUSE.  ### PROCESSORY SHAPE DO MARCH MOC PROCESSORY  ### PROCESSOR	IRRIGATION_	SCHEDULE			
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CHE MOTADOL, STILD PLANTIF HACKS MISSIALED COCK AND PROCESSOR PRO	₩ 🗅 💿	TURF ROTATOR, 6" POP-UP WITH CHECK VALVE, PRESSURE REGULATED TO 40 PSI, MP ROTATOR NOZZLE ON PRS40 BODY. M=MAROON ADJ ARC 90 TO 210,	40		
TICK ROPACION, STOCKED WITH PACE DOTS IN A CONTROL OF SIGNING CONTROL	<u>k</u> ©R	TURF ROTATOR, 6" POP-UP WITH FACTORY INSTALLED CHECK VALVE, PRESSURE REGULATED TO 40 PSI, MP ROTATOR NOZZLE ON PRS40 BODY. K=BLACK ADJ ARC	40		
HINTER L20 GG 59 TUPE ROTOR, GC 70 PREPS ADUSTABLE AND FILL CONTROL CONTROL STEE SOME DRAW CHECK VALVE STALL DE PLACTIC ROSES THAT DE PLACTIC ROSES THAT DE PLACTIC ROSES THAT DE PLACTIC ROSES THE ROTOR, GC 70 PRIOR ADUSTABLE AND FILL CONTROL AND ROSES ADUSTABLE AND FILL FIND HINTER CONTROL AND ROSES ADUSTABLE AND FILL FIND HINTER CONTROL AND ROSES ADUSTABLE CONTROL AND FILE SOCIETY HINTER CONTROL AND ADUSTABLE AND FILE SOUNT CONTROL AND ADUSTABLE AND ADUSTABLE AND FILE SOUNT HINTER CONTROL AND ADUSTABLE A	<b>®₹&gt;</b>	TURF ROTATOR, 6" POP-UP WITH FACTORY INSTALLED CHECK VALVE, PRESSURE REGULATED TO 40 PSI, MP ROTATOR NOZZLE ON PRS40 BODY. B=BLUE ADJ ARC 90-210, Y=YELLOW ADJ ARC 210-270, A=GRAY 360	40		
TURE MOTION, GOT YOUTURE, ADJUSTABLE AND FULL CINCIE, STAN BESS STEER BESS. DANN CHOCK VALVE. STANDARD MOZZEL FACO KOTORS IN NATIVE SEED AREAS SHALL BY FASTER MERISE.  HINTER I 20 GB 50 TURE MOTION, GOT YOTUP, ADJUSTABLE AND FULL CINCIE, STAN BESS STEER BESS. DEANN CHOCK VALVE. STANDARD MOZZEL FACO SOTORS IN NATIVE SEED AREAS SHALL BY FASTER BESS.  MANUFACTURERAMODELOESCRIPTION  DRIP VALVE ASSEMBLY HUMBER CZI TOL 25 TOPP CONTROL ZORL KIT. 11 CV GLOBE VALVE WITH IT I'M ON TILIZE SHEEM. PRESSURE BEST MESS STEEL SCREEN.  DRIP FUSIN VALVE SAY FIVE BEALL VALVE  SYMBOL  MANUFACTURERAMODELOESCRIPTION  PRIMOTE CONTROL VALVE ASSEMBLY HUMBER CONTROL VALVE ASSEMBLY HUMBER CONTROL VALVE ASSEMBLY HUMBER CONTROL VALVE SCROEN CORP STANDARD VALVE CONTROL CONTROL VALVE SCROEN  GOUGH COURTE WAT A PASTWARY HUMBER OF SEC. VALVE WITH HITCH SENTER.  OUTCOMPTEN WAT A PASTWARY HUMBER AND SEAS VALVE WITH HUMBER SHEET FULL STANDARD AND THE SHEET HUMBER CONTROL VALVE ASSEMBLY BUCCHER WATE ASSEMBLY BUCCHER SAY AND ASSEMBLY HUMBER ASSEMBLY BUCCHER SOLD AND ASSEMBLY BUCCHER SAY AND ASSEMBLY BUCCHER SOLD AND ASSEMBLY BUCCH	SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	PSI	GPM	RADIUS
TURE ROTOR, G. O' POPE LEY ABUISTABLE AND HUN CROILS STANDARD MOZUE I LEO SOTORS IN NATIVE SEED AREAS STANDARD MOZUE I LEO SOTORS IN NATIVE SEED AREAS STANDARD MOZUE I LEO SOTORS IN NATIVE SEED AREAS STANDARD MOZUE I LEO SOTORS IN NATIVE SEED AREAS STANDARD MOZUE I LEO SOTORS IN NATIVE SEED AREAS STANDARD MOZUE ASSEMBLY HUNTER (22 I O LEO DIE CONTROL ZONE R.T. L'HOV GLOSS VALVE MITH 'I'M OO RITER SYSTEM. PRESSURF REQUIRO WE HAVE AND PROBLEMAND STANDARD STANDARD OF THE SYSTEM.  PRESSUR DAME AND TARRESS STELL SORREIN.  DIE FLUSH WAND 344" PAVO BALL WAYE  DYMBOL  MANUFACTURERMODELOSCRIPTION  REMOTE CONTROL VALVE ASSEMBLY HUNTER (24 G FS: 1", 1 1.12", 2", AND 3" FLASTIC FLECTER REMOTE CONTROL VALVE ASSEMBLY HUNTER (24 G FS: 1", 1 1.12", 2", AND 3" FLASTIC FLECTER REMOTE CONTROL VALVE ASSEMBLY HUNTER (24 G FS: 1", 1 1.12", 2", AND 3" FLASTIC FLECTER REMOTE CONTROL VALVE ASSEMBLY HUNTER ROS-BIC VALVE ASSEMBLY HUNTER ROS-BIC VALVE WITH FLOW RUBBLE COVER, RED BRASS AND STANLESS STELL, WITH I "NPT INLIT, I FLEC BODY.   MASTER VALVE ASSEMBLY BUCKHER-SUPEROS STOO, MOSMALLY OPEN BRASS MISTER VALVE MAN FRONCES DIRTY WAITER FEBOO BEZEN AS SEED TO MATCH TOO METER SIZE. REDUCED PRESSURES BACK HOW REVENTER IN STRONG DOX 3050-3050-3020-3020 TO MATCH TOO METER SIZE. REDUCED PRESSURES BACK HOW REVENTER IN STRONG DOX 3050-3020-3020 TO MATCH TOO METER SIZE. REDUCED PRESSURES BACK HOW REVENTER IN STRONG DOX 3050-3020-3020-3020-3020-3020-3020-3020-		TURF ROTOR, G.O" POP-UP. ADJUSTABLE AND FULL CIRCLE. STAINLESS STEEL RISER. DRAIN CHECK VALVE. STANDARD NOZZLE. I-20 ROTORS IN NATIVE SEED AREAS	45	2.50	35'
DRIP VALVE ASSEMBLY HUNTER ICZ. 101-25: DRIP CONTROL ZONE NT. L*ILOV GIODE VALVE WITH I*I HY YO O PILTER SYSTEM. PRESSURE REGULATION JOSHI . HOW RAMAL: 2 CHM*TO 20 CHM. 150 MED 15TAINLESS STEEL SCREW.  DRIP PLUSIL VALVE SYMPOL MANUFACTURERMOBELDESCRIPTION  REMOTE CONTROL VALVE ASSEMBLY HUNTER ICV. G. FO: I*I. JUZ. 22. AND 3" FLASTIC ELECTRIC REMOTE CONTROL VALVES, GLOBE CONFIGURATION, WITH INIT THERMODE INLETOUTLET. FOR COMMERCIAL ADMINISTRAL USE. WITH HURR SCHIPT.  GUICK COUPLER WALVE ASSEMBLY HUNTER ICK DEG. VALVE WITH HURR SCHIPT.  HUNTER ICK DEG. VALVE WITH HURD ON RUBBER COVER. RED BEAS AND STAINLESS STEEL, WITH I*I NPT INLET, I-PIECE DOOV.  MASTER VALVE ASSEMBLY BUCKNERS-SUPERIOR 31 OO, NORMALLY OPEN BRASS MASTER VALVE THAT PROVIDED DRITY WATER. PROTECTON. SELE TO MATCH POC.  REDUCED PRESSURE BACKFLOW REPWITER. I REDUCED PRESSURE BACKFLOW REPWITER IN STRONG ON THE INARNE CRADE ALLUMINUM. SO'L, SO'L, I'G, 25'W ("G. ZOM L, "FG. ZOM I), 41-2.75 CM W).  PUBLISHAM MOUNT TRADITIONAL HUNTER A22-2400-SSS. 24-57ATION CONTROLLER WITH TWO ("J. ZAM-GOO MODULES" IN AN OUTDOOR STAINLESS STIELL WALL MOUNT TRADITIONAL HUNTER A22-2400-SSS. 24-57ATION CONTROLLER WITH TWO ("J. ZAM-GOO MODULES" IN AN OUTDOOR STAINLESS STIELL WALL MOUNT TRADITIONAL HUNTER A22-2400-SSS. 24-57ATION CONTROLLER WITH TWO ("J. ZAM-GOO MODULES" IN AN OUTDOOR STAINLESS STIELL WALL MOUNT TRADITIONAL HUNTER A22-2400-SSS. 24-57ATION CONTROLLER WITH TWO ("J. ZAM-GOO MODULES" IN AN OUTDOOR STAINLESS STIELL WALL MOUNT TRADITIONAL HUNTER A22-2600-SSS. 24-57ATION CONTROLLER WITH TWO ("J. ZAM-GOO MODULES" IN AN OUTDOOR STAINLESS STIELL WALL MOUNT TRADITIONAL HUNTER A22-2600-SSS. 24-57ATION CONTROLLER WITH TWO ("J. ZAM-GOO MODULES" IN AN OUTDOOR STAINLESS STIELL WALL MOUNT TRADITIONAL HUNTER A22-2600-SSS. 24-57ATION CONTROLLER WITH TWO ("J. ZAM-GOO MODULES" IN AN OUTDOOR STAINLESS STIELL WALL MOUNT TRADITIONAL HUNTER A22-2600-SSS. 24-57ATION CONTROLLER WITH TWO ("J. ZAM-GOO MODULES" IN AN OUTDOOR STAINLESS STIELL WALL MOUNT TRADITIONAL THE STAINLESS STOTE TO	€.3	TURF ROTOR, G.O" POP-UP. ADJUSTABLE AND FULL CIRCLE. STAINLESS STEEL RISER. DRAIN CHECK VALVE. STANDARD NOZZLE. I-20 ROTORS IN NATIVE SEED AREAS	45	4.00	40'
HUNTER (CZ. 101-ZS. DRIF CONTROL ZONE RT. 1" I'CV GLODE VALVE WITH 1" PHY O'D FILES SYSTEM. PRESSURE REGULATION. 25°PSI. H.OW RANGE. 2 GPM TO 20 GPM.  DRIF FLUSH VALVE SYM RANGE. 2 GPM TO 20 GPM.  DRIF FLUSH VALVE SYM RANGE. 2 GPM TO 20 GPM.  DRIF FLUSH VALVE SYM RANGE. 2 GPM TO 20 GPM.  EMBOTE CONTROL VALVE A SSEMBLY HUNTER (CVGF.B.). "1. 1/2", "2", AND 3" PLASTIC ELECTRIC REMOTE CONTROL VALVES, GLODE INEEDIDE. TO COMMERCIAMUNICIPAL USE. WITH FILTER SEMTEY.  CHUKK COUTIER VALVE A SSEMBLY HUNTER SEMTEY.  CHUKK FLORE SEG. VALVE WITH YELLOW RUBBER COVER.  RED BEASS AND STANLESS STEEL, WITH I'M PT INLET, I PRECE BODY.  MASTER VALVE ASSEMBLY  DICKNIT SUFFEROR 31 DO, NORMALLY O'FEN BRASS  MASTER VALVE ASSEMBLY  DICKNIT SUFFEROR 31 DO, NORMALLY O'FEN BRASS  MASTER VALVE THAT PROVIDED BIRTY WATER  PROTECTION. SIZE TO MATCH POC.  REDUCED PRESSURE BACKFLOW PREVENTER SIZE.  REDUCED PRESSURE BACKFLOW BACKFLOW BAC	SYMBOL	MANUFACTURER/MODEL/DESCRIPTION			
MANUFACTURE RIMODEL/DESCRIPTION  REMOTE CONTROL VALVE ASSEMBLY HUNTER ICX-G-FS-17, 1-127, 27, AND 3" FLASTIC ELECTRIC REMOTE CONTROL VALVES, GLOBE CONTIGURATION, WITH NET THREADED INLET/DUTLET, FOR COMMERCIA/MUNICIPAL USE. WITH HILTER SENTRY.  CUICK COUPLER VALVE ASSEMBLY HUNTER HO-SRC; VALVE WITH YELLOW RUBBER COVER, RED BRASS AND STAINLESS STEEL, WITH 1" NPT INLET, 1-PIECE BODY.  MASTER VALVE ASSEMBLY BUCKIRES-SUPERIOR 31 (00, NORMALLY OFEN BRASS MASTER VALVE THAT PROVIDES DIRTY WATER PROJECTION, 932 TO MATCH FOR EDUCED PRESSURE BACKFLOW PREVENTER IN STRONG DOX 900C-300A. 100 PROPINE BACKFLOW PREVENTER IN STRONG DOX 900C-300A. IN STRONG PREVENTER IN STRONG SOME STREET AND ADDITIONAL HUNTER ACC-240O-SS: 24-STATION CONTROLLER WITH TWO (2) APM-600 MODULES IN AN OUTDOOR STAINLESS STEEL WALL MOUNT ENCLOSURE. INSTAIL WIRELESS RAIN SENSOR AND 500A MODULES IN AN OUTDOOR STAINLESS STEEL WALL MOUNT ENCLOSURE. INSTAIL WIRELESS RAIN SENSOR AND 500A MODULES IN AN OUTDOOR STAINLESS STEEL WALL MOUNT ENCLOSURE. INSTAIL WIRELESS RAIN SENSOR AND 500A STRONG WISOCKET ENDS, CUSTOM MOUNTING TEX AND UTIRAL LIMITERS PLOY LATERAL ENHANCES LOW FLOW MEASUREMENT. 2 WIRE DIGITAL OUTPUT FLOW RANGE: 86-52 GFM.  IRRIGATION LATERAL LINE: PVC CLASS 200 SDR 21 PVC CLASS 200 RRIGATION PIEC. ONLY LATERAL TRANSITION PIECE SIZES 1 1/44 AND ABOVE ARE INDICATED ON THE TRAN, WITH ALL OTTERS BEING!" IN SIZE.  PLANTING BED DRIP IRRIGATION LATERAL LINE: 3/4-INCH BIANK UV RADMATION RESISTANT POUTETHERNE PIECE TO TREE RINGS, NETAMIN RUNNE DRIP TUDING MODEL TICCA-18, AND SINGLE OUTLET EMITTERS POR SINGLES FER ADJACENT EMITTER CHART.  PIECE TORSON REPORT OF T		HUNTER ICZ-101-25: DRIP CONTROL ZONE KIT. I" ICV GLOBE VALVE WITH I" HY100 FILTER SYSTEM. PRESSURE REGULATION: 25PSI. FLOW RANGE: 2 GPM TO 20 GPM.			
REMOTE CONTROL VALVE ASSEMBLY HUNTER ICV-G-F9: 1", 1-12", 2", AND 3" PLASTIC ELECTRIC REMOTE CONTROL VALVES, GLOBE CONTRIGURATION, WITH NET THREADED INLET/OUTLET, FOR COMMERCIAL/MUNICIPAL USE. WITH HILTER SENTEY.  QUICK COUPLER VALVE ASSEMBLY HUNTER HO-SRC; VALVE WITH YELLOW RUBDER COVER, RED BRASS AND STANLESS STEEL, WITH 1" NPT INLET. 1-PIECE BODY.  MASTER VALVE ASSEMBLY BUCKNER-SUPRESIOR 31 DO, NORMALLY OPEN BRASS MASTER VALVE THAT PROVIDES DIRTY WATER FROTECTION. 532 TO MATCH FOC.  REDUCED PRESSURE BACKTOW PREVENTER FEBCO 825YA: SIZED TO MATCH FOC METER SIZE. REDUCED PRESSURE BACKTOW PREVENTER IN 3TRONG BOX SBEC 30A1: 10W PROFILE BACKTOW ENCLOSURE, WITH MARINE GRADE ALUMINUM, 30'L, 30'L, 16,25'W (76,20M L, 76,20M H, 41,2750M W).  PEDESTAL MOUNT TRADITIONAL HUNTER ASC. 2400-35: 24-5TATION CONTROLLER WITH TWO (2) ARM-GOO MODULES IN AN OUTDOOR STAINLESS STEEL WALL MOUNT ENCLOSURE, INSTALL WIRELESS RAN SENSOR AND SOLAR SYNC.  FOR CREATIVE SHASOR TECHNOLOGY PSI-1 1' PVC TEE TYPE FLOW SENSOR W/SOCKET ENDS, CUSTOM MOUNTING TEE AND ULTRA-JIGHTWIGHT IMPELLER ENHANCES LOW PLOW MEASUREMENT. 2 WIRE DIGITAL OUTPUT FLOW RANGE: 86-52 GPM.  IRRIGATION LATERAL LINE: 1PVC CLASS 200 SDR 21 PVC CLASS 200 BRIGATION PIEC, ONLY LATERAL TRANSITION PIEC SIZES 1 JM' AND ABOVE ARE INDICATED ON THE PLAN, WITH ALL OTHERS BEING I' I' IN SIZE.  PLANTING DEED DRIP IRRIGATION LATERAL LINE: 3/4-INCH BILANK UV RADIATION RESISTANT POLYETHYLENE PIEC TO SINGLE OUTLET EMITTERS FOR SHRUBS PER ADJACENT EMITTER CHART  IRRIGATION MAINLENE BIT INDIR MODDED TO TREE RINGS, NETAMIN INDIR DED TIT INDIR MODDED TO TREE RINGS, NETAMIN INDIR DED TIT INDIR MODDED TO TREE RINGS, NETAMIN HUNDER DIFT UTDIR MODDED TO TREE RINGS, NETAMIN HUNDE DIFT TUDING MODDED TO THE BILANK UV RADIATION RESISTANT POLYETHYLENE PIEC TO SINGLE OUTLET EMITTERS FOR SHRUBS PER ADJACENT EMITTER CHART  IRRIGATION MAINLENE STOTED.  VOIVE COLOUT.  PIECE BOOK VICE COLOUT.  WORD STOTE SHARL SHARE THE SAME SLEEVE.  VOIVE COLOUT.	$\Leftrightarrow$				
HUNTER ICV-G-F5: I*, I - I/2*, 2*, AND 3* PLASTIC ELECTRIC REMOTE COMTROL VALVES, GLOBE CONFIGURATION, WITH INFIT THREADED INLET/OUTLET, FOR COMMERCIALMONICIPAL USE. WITH FILTER SENTRY.  QUICK COUPLER VALVE ASSEMBLY HUNTER ING-SRC: VALVE WITH YELLOW RUBBER COVER, RED BRASS AND STAINLESS STEEL, WITH I* NPT INLET, I - PIECE BODY.  MASTER VALVE ASSEMBLY BUCKNER SUPERIOR 31:00, NORMALLY OPEN BRASS MASTER VALVE THAT PROVIDES DIRTY WATER PROTECTION. SIZE TO MATCH POC  REDUCED PRESSURE BACKHLOW PREVENTER PEBCO 825*VA: SIZED TO MATCH POC METER SIZE, REDUCED PRESSURE BACKHLOW PREVENTER PEBCO 825*VA: SIZED TO WATCH POC METER SIZE, REDUCED PRESSURE BACKHLOW PREVENTER PEBCO 825*VA: SIZED TO WATCH POC METER SIZE, REDUCED PRESSURE BACKHLOW PREVENTER PEBCO 825*VA: SIZED TO WATCH POC METER SIZE, REDUCED PRESSURE BACKHLOW PREVENTER PEBCO 825*VA: SIZED TO WATCH POC METER SIZE, REDUCED PRESSURE BACKHLOW PREVENTER PEBCO 825*VA: SIZED TO WATCH POC METER SIZE, REDUCED PRESSURE BACKHLOW PREVENTER PEBCO 825*VA: SIZED TO WATCH POC METER SIZE, REDUCED PRESSURE BACKHLOW PREVENTER PEBCO 825*VA: SIZED TO WATCH PREVENTER PERCENTER PE	SYMBOL	MANUFACTURER/MODEL/DESCRIPTION			
HUNTER HG-SKC: VALVE WITH YELLOW RUBBER COVER, RED BRASS AND STAINLESS STEEL, WITH I'N IPT INLET, I-PIECE BODY.  MASTER VALVE ASSEMBLY BUCKNER-SUPERIOR 3 1:00, NORMALLY OPEN BRASS MASTER VALVE THAT PROVIDES DIRTY WATER PROTECTION. SIZE TO MATCH POC  REDUCED PRESSURE BACKFLOW PREVENTER PROTECTION. SIZE TO MATCH POC  REDUCED PRESSURE BACKFLOW PREVENTER IN STRONG BOX SBBC-SOAL: JOW PROFILE BACKFLOW PREVENTER IN STRONG BOX SBBC-SOAL: JOW PROFILE BACKFLOW BELCOSURE, WITH MARINE GRADE ALUMINUM. 30'L, 30'H, 16.25'W (7G.2CM L, 76.2CM H, 41.275CM W).  PEDESTAL MOUNT TRADITIONAL HUNTER A2C-2400-S5: 24-5TATION CONTROLLER WITH TWO (2) A2M-GOO MODULES IN AN OUTDOOR STAINLESS STEEL WALL MOUNT ENCLOSURE. INSTALL WRELESS RAN SENSOR AND SOLAR SYNIC  CREATIVE SENSOR TECHNOLOGY PSI-T I'P YOU TEE TYPE FLOW SENSOR W/SOCKET ENDS, CUSTOM MOUNTING TEE AND ULTRA-LIGHTWEIGHT IMPELLER ENRANCES LOW FLOW MEASUREMENT. 2 WIRE DIGITAL OUTPUT FLOW RANGE: :86-52 GPM.  IRRIGATION LATERAL LINE: PVC CLASS 200 SDR 21 PVC CLASS 200 IRRIGATION PIPE. ONLY LATERAL TRANSITION PIPE SIZES 1 1/4' AND ABOVE ARE INDICATED ON THE PLAN, WITH ALL OTHERS BEING 1' IN SIZE.  PLANTING BED DRIP IRRIGATION LATERAL LINE: 3/4-INCH BLANK UV RADIATION RESISTANT POLYETHYLENE PIPE TO SINGLE OUTLET EMITTERS PER ADJACENT EMITTER CHART.  NATIVE PLANTING DRIP IRRIGATION LATERAL LINE: 3/4-INCH BLANK UV RADIATION RESISTANT POLYETHYLENE PIPE TO TREE RINGS, NETAPIM INLINE DRIP TUBING MODEL TLCVG-18, AND SINGLE OUTLET EMITTERS FOR SHRUBS PER ADJACENT EMITTER CHART  RERIGATION MAINLINE: PVC CLASS 200 SDR 21 X-INCH UNILESS OTHERWISE NOTED.  PIPE SLEEVE: PVC SCHEDULE 40 INSTALL AS SHOWN ON DESIGN OR TWICE THE SIZE OF THE PIPE OR WIRE RUNNING THRU IT. NO TWO PIPES OR WIRE BUNNILES SHALL SHARE THE SAME SILEVE.  Valve Cullout		HUNTER ICV-G-FS: I", I-I/2", 2", AND 3" PLASTIC ELECTRIC REMOTE CONTROL VALVES, GLOBE CONFIGURATION, WITH NPT THREADED INLET/OUTLET, FOR			
BUCKNER-SUPERIOR 3 I.O., NORMALLY OPEN BRASS MASTER VALVE THAT PROVIDES DIRTY WATER PROTECTION. SIZE TO MATCH POC  REDUCED PRESSURE BACKFLOW PREVENTER IN STRONG BOX SBBC.30AL: LOW PROPILE BACKFLOW RENCLOSURE, WITH MARINE GRADE ALUMINUM. 30TH, IG.25 W (76.2CM L, 76.2CM h, 41.275CM W).  PEDESTAL MOUNT TRADITIONAL HUNTER A2C.2400.55: 24.5TATION CONTROLLER WITH TWO (2) A2M-600 MODULES IN AN OUTDOOR STAINLESS STEEL WALL MOUNT ENCLOSURE, INSTALL WIRELESS RAIN SENSOR AND SOLAR SYNC  CREATIVE SENSOR TECHNOLOGY PSI-T IT PVC TEE TYPE PLOW SENSOR WISOCKET ENDS, CUSTOM MOUNTING TEE AND ULTRA-LIGHTWEIGHT IMPELLER ENHANCES LOW FLOW MEASUREMENT. 2 WIRE DIGITAL OUTPUT FLOW RANGE: .86-52 GPM.  IRRIGATION LATERAL LINE: PVC CLASS 200 SDR 21 PVC CLASS 200 RIGICATION PIPE. ONLY LATERAL TRANSITION PIPE SIZES 1 1/4* AND ABOVE ARE INDICATED ON THE PLAN, WITH ALL OTHERS BEING I" IN SIZE.  PLANTING BED DRIP IRRIGATION LATERAL LINE: 3/4-INCH BLANK UV RADIATION RESISTANT POLYETHMENE PIPE TO SINGLE OUTLET EMITTERS PER ADJACENT EMITTER CHART.  NATIVE PLANTING DRIP IRRIGATION LATERAL LINE: 3/4-INCH BLANK UV RADIATION RESISTANT POLYETHMENE PIPE TO TREE RINGS, NETRAIN MILINE DRIP TUBING MODEL TLCC'S, I. AND SINGLE OUTLET EMITTERS FOR SHRUBS PER ADJACENT EMITTER CHART.  NATIVE PLANTING DRIP IRRIGATION LATERAL LINE: 3/4-INCH BLANK UV RADIATION RESISTANT POLYETHMENE PIPE TO TREE RINGS, NETRAIN MILINE DRIP TUBING MODEL TLCC'S, I. AND SINGLE OUTLET EMITTERS FOR SHRUBS PER ADJACENT EMITTER CHART.  IRRIGATION MAINLINE: PVC CLASS 200 SDR 21  X-INCH UNLESS OTHERWISE NOTED.  Z-INCH UNLESS OTHERWISE NOTED.  WIRE BUNDLES SHALL SHARE THE SAME SLEEVE.  Valve Callout	•	HUNTER HQ-5RC: VALVE WITH YELLOW RUBBER COVER, RED BRASS AND STAINLESS STEEL, WITH I" NPT INLET,			
PEBCO 825YA: SIZED TO MATCH POC METER SIZE. REDUCED PRESSURE BACKFLOW PREVENTER IN 3 TRONG BOX 5BBC-30AL: LOW PROFILE BACKFLOW ENCLOSURE, WITH MARINE GRADE ALUMINUM. 30°L, 30°H, 16.25°W (76.20°M L, 76.20°M H, 41.275°CM W).  (A) PEDESTAL MOUNT TRADITIONAL HUNTER A2C-2400-55: 24-5TATION CONTROLLER WITH TWO (2) A2M-600 MODULES IN AN OUTDOOR STAINLESS STEEL WALL MOUNT ENCLOSURE. INSTALL WIRELESS RAIN SENSOR AND SOLAR SYNC  F CREATIVE SENSOR TECHNOLOGY PSI-T 1" PVC TEE TYPE FLOW SENSOR W/SOCKET ENDS, CUSTOM MOUNTING TEE AND ULTRA-LIGHTWEIGHT IMPELLER ENHANCES LOW FLOW MEASUREMENT. 2 WIRE DIGITAL OUTPUT FLOW RANGE: 86-52 GPM.  IRRIGATION LATERAL LINE: PVC CLASS 200 SDR 2 I PVC CLASS 200 IRRIGATION PIPE. ONLY LATERAL TRANSITION PIPE SIZES 1 1/4" AND ABOVE ARE INDICATED ON THE PLAN, WITH ALL OTHERS BEING 1" IN SIZE.  PLANTING BED DRIP IRRIGATION LATERAL LINE: 3/4-INCH BLANK UV RADIATION RESISTANT POLYETHYLENE PIPE TO SINGLE OUTLET EMITTERS PER ADJACENT EMITTER CHART.  NATIVE PLANTING DRIP IRRIGATION LATERAL LINE: 3/4-INCH BLANK UV RADIATION RESISTANT POLYETHYLENE PIPE TO TREE RINGS, NETAPIM INLINE DRIP TUBING MODEL TLCVG-18, AND SINGLE OUTLET EMITTERS PER ADJACENT EMITTER CHART.  NATIVE PLANTING DRIP IRRIGATION LATERAL LINE: 3/4-INCH BLANK UV RADIATION RESISTANT POLYETHYLENE PIPE TO TREE RINGS, NETAPIM INLINE DRIP TUBING MODEL TLCVG-18, AND SINGLE OUTLET EMITTERS PER ADJACENT EMITTER CHART  IRRIGATION MAINLINE: PVC CLASS 200 SDR 2 I X-INCH UNLESS OTHERWISE NOTED.  PIPE SLEEVE: PVC SCHEDULE 40 INSTALL AS SHOWN ON DESIGN OR TWICE THE SIZE OF THE PIPE OR WIRE RUNNING THRU IT. NO TWO PIPES OR WIRE BUNDLES SHALL SHARE THE SAME SLEEVE.  Volve Collout	<b>\T</b> \	BUCKNER-SUPERIOR 3 I 00, NORMALLY OPEN BRASS MASTER VALVE THAT PROVIDES DIRTY WATER			
HUNTER A2C-2400-55: 24-STATION CONTROLLER WITH TWO (2) A2M-GOO MODULES IN AN OUTDOOR STAINLESS STEEL WALL MOUNT ENCLOSURE. INSTALL WIRELESS RAIN SENSOR AND SOLAR SYNC  IP OREATIVE SENSOR TECHNOLOGY FSI-T I" PVC TEE TYPE FLOW SENSOR WISOCKET ENDS, CUSTOM MOUNTING TEE AND ULTRA-LIGHTWEIGHT IMPELLER ENHANCES LOW FLOW MEASUREMENT. 2 WIRE DIGITAL OUTPUT FLOW RANGE: .86-52 GPM.  IRRIGATION LATERAL LINE: PVC CLASS 200 SDR 2 I PVC CLASS 200 IRRIGATION PIPE. ONLY LATERAL TRANSITION PIPE SIZES I I I/4" AND ABOVE ARE INDICATED ON THE PLAN, WITH ALL OTHERS BEING I" IN SIZE.  PLANTING BED DRIP IRRIGATION LATERAL LINE: 3/4-INCH BLANK UV RADIATION RESISTANT POLYETHYLENE PIPE TO SINGLE OUTLET EMITTERS PER ADJACENT EMITTER CHART.  NATIVE PLANTING DRIP IRRIGATION LATERAL LINE: 3/4-INCH BLANK UV RADIATION RESISTANT POLYETHYLENE PIPE TO TREE RINGS, NETATIM INLINE DRIP TUBING MODEL TLCVG-1 8, AND SINGLE OUTLET EMITTERS FOR SHRUBS PER ADJACENT EMITTER CHART  IRRIGATION MAINLINE: PVC CLASS 200 SDR 2 I X-INCH UNLESS OTHERWISE NOTED.  PIPE SLEEVE: PVC SCHEDULE 40 INSTALL AS SHOWN ON DESIGN OR TWICE THE SIZE OF THE PIPE OR WIRE RUNNING THRU IT. NO TWO PIPES OR WIRE BUNDLES SHALL SHARE THE SAME SLEEVE.  Valve Callout  Valve Number		FEBCO 825YA: SIZED TO MATCH POC METER SIZE. REDUCED PRESSURE BACKFLOW PREVENTER IN STRONG BOX SBBC-30AL: LOW PROFILE BACKFLOW ENCLOSURE, WITH MARINE GRADE ALUMINUM. 30"L, 30"H, 16.25"W			
I" PVC TEE TYPE FLOW SENSOR W/SOCKET ENDS, CUSTOM MOUNTING TEE AND ULTRA-LIGHTWEIGHT IMPELLER ENHANCES LOW FLOW MEASUREMENT. 2 WIRE DIGITAL OUTPUT FLOW RANGE: .86-52 GPM.  IRRIGATION LATERAL LINE: PVC CLASS 200 SDR 2 I PVC CLASS 200 IRRIGATION PIPE, ONLY LATERAL TRANSITION PIPE SIZES I 1/4" AND ABOVE ARE INDICATED ON THE PLAN, WITH ALL OTHERS BEING I" IN SIZE.  PLANTING BED DRIP IRRIGATION LATERAL LINE: 3/4-INCH BLANK UV RADIATION RESISTANT POLYETHYLENE PIPE TO SINGLE OUTLET EMITTERS PER ADJACENT EMITTER CHART.  NATIVE PLANTING DRIP IRRIGATION LATERAL LINE: 3/4-INCH BLANK UV RADIATION RESISTANT POLYETHYLENE PIPE TO TREE RINGS, NETAFIM INLINE DRIP TUBING MODEL TLCVG-18, AND SINGLE OUTLET EMITTERS FOR SHRUBS PER ADJACENT EMITTER CHART  IRRIGATION MAINLINE: PVC CLASS 200 SDR 2 I X-INCH UNLESS OTHERWISE NOTED.  IRRIGATION MAINLINE: PVC CLASS 200 SDR 2 I X-INCH UNLESS OTHERWISE NOTED.  PIPE SLEEVE: PVC SCHEDULE 40 INSTALL AS SHOWN ON DESIGN OR TWICE THE SIZE OF THE PIPE OR WIRE RUNNING THRU IT. NO TWO PIPES OR WIRE BUNDLES SHALL SHARE THE SAME SLEEVE.  Valve Callout	A	HUNTER A2C-2400-SS: 24-STATION CONTROLLER WITH TWO (2) A2M-600 MODULES IN AN OUTDOOR STAINLESS STEEL WALL MOUNT ENCLOSURE. INSTALL WIRELESS RAIN			
PVC CLASS 200 IRRIGATION PIPE. ONLY LATERAL TRANSITION PIPE SIZES I 1/4" AND ABOVE ARE INDICATED ON THE PLAN, WITH ALL OTHERS BEING I" IN SIZE.  PLANTING BED DRIP IRRIGATION LATERAL LINE: 3/4-INCH BLANK UV RADIATION RESISTANT POLYETHYLENE PIPE TO SINGLE OUTLET EMITTERS PER ADJACENT EMITTER CHART.  NATIVE PLANTING DRIP IRRIGATION LATERAL LINE: 3/4-INCH BLANK UV RADIATION RESISTANT POLYETHYLENE PIPE TO TREE RINGS, NETAFIM INLINE DRIP TUBING MODEL TLCVG-18, AND SINGLE OUTLET EMITTERS FOR SHRUBS PER ADJACENT EMITTER CHART  IRRIGATION MAINLINE: PVC CLASS 200 SDR 2 I X-INCH UNLESS OTHERWISE NOTED.  PIPE SLEEVE: PVC SCHEDULE 40 INSTALL AS SHOWN ON DESIGN OR TWICE THE SIZE OF THE PIPE OR WIRE RUNNING THRU IT. NO TWO PIPES OR WIRE BUNDLES SHALL SHARE THE SAME SLEEVE.  Valve Callout  Valve Number	F	I " PVC TEE TYPE FLOW SENSOR W/SOCKET ENDS, CUSTOM MOUNTING TEE AND ULTRA-LIGHTWEIGHT IMPELLER ENHANCES LOW FLOW MEASUREMENT. 2 WIRE DIGITAL OUT			
BLANK UV RADIATION RESISTANT POLYETHYLENE PIPE TO SINGLE OUTLET EMITTERS PER ADJACENT EMITTER CHART.  NATIVE PLANTING DRIP IRRIGATION LATERAL LINE: 3/4-INCH BLANK UV RADIATION RESISTANT POLYETHYLENE PIPE TO TREE RINGS, NETAFIM INLINE DRIP TUBING MODEL TLCVG-18, AND SINGLE OUTLET EMITTERS FOR SHRUBS PER ADJACENT EMITTER CHART  IRRIGATION MAINLINE: PVC CLASS 200 SDR 21 X-INCH UNLESS OTHERWISE NOTED.  PIPE SLEEVE: PVC SCHEDULE 40 INSTALL AS SHOWN ON DESIGN OR TWICE THE SIZE OF THE PIPE OR WIRE RUNNING THRU IT. NO TWO PIPES OR WIRE BUNDLES SHALL SHARE THE SAME SLEEVE.  Valve Callout  Valve Number		PVC CLASS 200 IRRIGATION PIPE. ONLY LATERAL TRANSITION PIPE SIZES   1/4" AND ABOVE ARE INDICATED			
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INSTALL AS SHOWN ON DESIGN OR TWICE THE SIZE OF THE PIPE OR WIRE RUNNING THRU IT. NO TWO PIPES OR WIRE BUNDLES SHALL SHARE THE SAME SLEEVE.  Valve Callout  Valve Number					
# • Valve Number	======	INSTALL AS SHOWN ON DESIGN OR TWICE THE SIZE OF THE PIPE OR WIRE RUNNING THRU IT. NO TWO PIPES OR WIRE BUNDLES SHALL SHARE THE SAME SLEEVE.			
#" #a Valva Flaw	# •				
The first term of the first te	#" #•	Valve Flow			

### INSTALLATION GENERAL NOTES

- I. DESIGN ASSUMES A MINIMUM DYNAMIC PRESSURE AVALIABLE FOR THE IRRIGATION SYSTEM (PER CITY OR ENGINEER / NOT OBTAINED) OF XX PSI, AT A MAXIMUM FLOW OF XX GPM AT THE X-INCH POINT-OF-CONNECTION (POC). VERIFY PRESSURE AND FLOW ON SITE PRIOR TO CONSTRUCTION. CONTACT GENERAL CONTRACTOR OR OWNER'S REPRESENTATIVE IMMEDIATELY IF FLOW OR PRESSURE ARE LOWER THAN
- I.I. TAP IS SIZED TO ACCOMMODATE AN 8 HOUR/DAY, 6 DAYS/WEEK WATERING WINDOW. THE ENHANCED NATIVE SEED MIX ASSUMES AN AVERAGE WEEKLY USAGE OF 0.75-INCHES PER WEEK, WHILE THE BLUEGRASS ASSUMES AN AVERAGE OF 1.25-INCHES PER WEEK.
- I.2. IRRIGATION IS CONNECTED DOWNSTREAM OF THE I.5-INCH DOMESTIC METER AS INDICATED. IRRIGATION IS DESIGNED TO UTILIZE ONLY 18 GPM. I.3. PRESSURE AVAILABLE AT THE TAP IS XX PSI. PRESSURE REQUIRED AT THE TAP IS
- XX PSI. ADDITIONAL XX PSI BOOST IS REQUIRED. I.4. IRRIGATION DESIGN EQUIPMENT LIST WAS PROVIDED BY CONTRACTOR AND DESIGN WAS COMPLETED PER CONTRACTOR REQUIREMENTS, PER DESIGN-BUILD AGREEMENT.
- 2. ALL MAINLINES SHALL BE INSTALLED AT LEAST 5' FROM CENTER OF TREES, WHERE POSSIBLE. DESIGN IS SHOWN FOR CLARITY, THUS MAINLINE ROUTING IN FIELD MAY LOOK SLIGHTLY DIFFERENT THAN DEPICTED IN DRAWINGS.
- 3. CONTRACTOR SHALL CREATE A LAMINATED CONTROLLER CHART ADHERED TO THE INSIDE OF THE CONTROLLER COVER OR A LAMINATED COLORED CONTROLLER MAP.
- 4. CONTRACTOR SHALL BECOME FAMILIAR WITH THE SPECIFICATIONS AND INSTALLATION DETAILS FOR THIS AND RELATED WORK PRIOR TO CONSTRUCTION. FOR CLARIFICATION, CONTACT IRRIGATION DESIGNER PRIOR TO CONSTRUCTION.
- 4. I .UPON FINAL ACCEPTANCE, CONTRACTOR SHALL TURN OVER REQUIRED ADJUSTMENT KEYS INCLUDING BUT NOT LIMITED TO CONTROLLER ENCLOSURE AND BACKFLOW ENCLOSURE KEY, LOCKING VALVE BOX KEYS, QUICK COUPLER KEYS, GATE VALVE KEY, SPRINKLER HEAD AND NOZZLE ADJUSTMENT KEYS.
- 4.2. UPON FINAL ACCEPTANCE, CONTRACTOR SHALL TURN OVER SPARE PARTS PERTAINING TO INSTALLED SYSTEM: BACKFLOW WINTERIZATION INSERT, TWO OF EVERY HEAD AND NOZZLE (ROTOR NOZZLE TREE INCLUDED), ONE RCV DIAPHRAGM,
- 5. COORDINATE UTILITY LOCATES OF UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION ("811-CALL BEFORE YOU DIG").

REFERENCE NOTES SCHEDULE

VERIFY EXACT LOCATION OF POC WITH OWNER'S

SHALL BE TESTED UPON INSTALLATION AND ANNUALLY

PEDESTAL MOUNT THE IRRIGATION CONTROLLER AT THE APPROXIMATE LOCATION SHOWN. COORDINATE ELECTRICAL

REPRESENTATIVE. CARE SHOULD BE TAKEN TO INSTALL THE

IRRIGATION CONTROLLER IN A LOCATION THAT IS ACCESSIBLE FOR MAINTENANCE, AND SCREENED FROM VIEW EITHER BEHIND ENTRY WALLS, NEXT TO BUILDINGS, OR BEHIND PLANT MATERIAL.

REPRESENTATIVE. CONTROLLER TO BE INSTALLED PER NATIONAL

POWER TO THE CONTROLLER WITH THE OWNER'S

FINAL LOCATION TO BE APPROVED BY OWNER'S

DESCRIPTION

ELECTRIC CODE.

SYMBOL

1

- 6. IF DISCREPANCIES ARE NOTED IN THE FIELD BETWEEN SITE CONDITIONS AND PROVIDED DESIGNS, CONTRACTOR SHALL NOTIFY OWNER'S REPRESENTATIVE OR GENERAL CONTRACTOR IMMEDIATELY. DO NOT PROCEED WITH THE INSTALLATION OF THE IRRIGATION SYSTEM IF SUCH DISCREPANCIES IN THE FIELD AFFECT THE PROVIDED DESIGN, DETAILS, OR SPECIFICATIONS.
- 7. ALL IRRIGATION COMPONENTS (MAINLINE, WIRES, LATERAL LINES, ETC.) SHALL BE INSTALLED IN LANDSCAPED AREAS WHENEVER POSSIBLE, EVEN THOUGH SAID IRRIGATION COMPONENTS MAY BE SHOWN OUTSIDE PLANTING AREAS FOR CLARITY.
- 8. AVOID CONFLICTS BETWEEN THE IRRIGATION SYSTEM, PLANTING MATERIALS, AND ARCHITECTURAL FEATURES WHENEVER POSSIBLE. COORDINATE POTENTIAL RELOCATION OF BOULDERS AND TREES IN TURF AREAS WITH LANDSCAPE ARCHITECT PRIOR TO SPRINKLER LAYOUT. IF LANDSCAPE MATERIAL CANNOT BE RELOCATED, ADDITIONAL SPRINKLERS MAY BE REQUIRED.
- 8. I . WHERE POSSIBLE, MAINTAIN 3'-5' DISTANCE FROM CENTER OF TREE TO MAINLINE AND WIRES. VALVE BOXES SHALL BE AT LEAST 3' FROM TREE CENTER. MAINLINE ROUTING AND VALVE LOCATIONS ARE SHOWN FOR CLARITY AND MAY BE SHOWN WITHIN THE 3'-5' RANGE NOTED ABOVE.

THE IRRIGATION SYSTEM POINT-OF-CONNECTION (POC) SHALL BE DOWNSTREAM OF THE DEDICATED IRRIGATION TAP AND METER AT THE APPROXIMATE LOCATION SHOWN (REFER TO CIVIL PLANS FOR EXACT LOCATION). INSTALL BACKFLOW PREVENTION UNIT, MASTER VALVE ASSEMBLY, AND FLOW SENSOR AS INDICATED.

REPRESENTATIVE. VERIFY PRESSURE AND FLOW ON SITE PRIOR

NATIONAL PLUMBERS CODE AND PER LOCAL CODE. BACKFLOW

TO CONSTRUCTION. CONTRACTOR TO INSTALL BACKFLOW PER

- 9. NON-POTABLE WATER IS BEING UTILIZED ON THIS SITE. INSTALL ALL MAINLINE PIPE WITH CHRISTY ID WARNING TAPE READING "NON-POTABLE WATER, DO NOT DRINK".
- INSTALL AT LEAST 6" ABOVE MAINLINE PIPE. 9.1.SCRUBBER VALVES SHALL BE INSTALLED PER DETAILS. 9.2.PURPLE HANDLES ON ALL VALVES SHALL BE INSTALLED PER DETAILS. 9.3.NON-POTABLE WARNING SIGNS SHALL BE POSTED ON SITE HEAR GATHERING
- PLACES. INSTALL PER COLORADO HEALTH CODES. 9.4.BACKFLOW PREVENTOR IS NOT NECESSARY.

10. CROSS FITTINGS ARE NOT ALLOWED, ONLY STANDARD TEES AND ELBOWS.

- II. CONTRACTOR SHALL INSTALL NOZZLES PER PLAN, UNLESS IRRIGATED AREA CHANGED IN SIZE OR PLANT MATERIAL TYPE CHANGES. IF NOZZLE CHANGES ARE REQUIRED AND ARE SIGNIFICANT IN SIZE, CONTRACTOR SHALL CONTACT IRRIGATION DESIGNER FOR APPROVAL.
- 12. CONTRACTOR SHALL FIELD LOCATE ANY EXISTING SLEEVES ON SITE PRIOR TO CONSTRUCTION WITH THE AID OF THE GENERAL CONTRACTOR. MISSING SLEEVES SHALL BE REPORTED IMMEDIATELY. NEW SLEEVES SHOWN ON PLANS ARE REQUIRED FOR BOTH PIPING AND ELECTRICAL WIRING AT EACH HARDSCAPE CROSSING. COORDINATE INSTALLATION OF SLEEVING WITH OTHER TRADES. ANY PIPE OR WIRE WHICH PASSES BENEATH EXISTING HARDSCAPE WHERE SLEEVING WAS NOT INSTALLED WILL REQUIRE HORIZONTAL BORING BY THE IRRIGATION CONTRACTOR.
- 13. INSTALL ALL ELECTRICAL POWER TO THE IRRIGATION CONTROL SYSTEM IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE AND ALL APPLICABLE LOCAL ELECTRIC UTILITY CODES.
- 14. THE FOLLOWING SHOULD BE NOTED REGARDING PIPE SIZING: IF A SECTION OF UNSIZED PIPE IS LOCATED BETWEEN THE IDENTICALLY SIZED SECTIONS, THE UNSIZED PIPE IS THE SAME NOMINAL SIZE AS THE TWO SIZED SECTIONS. THE UNSIZED PIPE SHOULD NOT BE CONFUSED WITH THE DEFAULT PIPE SIZE NOTED IN THE LEGEND.
- 14.1. MAINLINE PIPE SIZES MAY VARY THROUGHOUT PROJECT. EACH MAINLINE LEG IS SIZED TO ACCOMMODATE LARGEST VALVE ON THAT LEG. STATED SIZE IN LEGEND MAY NOT BE THE LARGEST SIZE ON PLANS.
- 15. INSTALL THREE (3) #14 AWG CONTROL WIRES FROM CONTROLLER LOCATION TO EACH DEAD-END OF MAINLINE FOR USE AS SPARES INCASE OF CONTROL WIRE FAILURE. COIL 3 FEET OF WIRE IN VALVE BOX.
- I 6. TWO-WIRE CONTROL CABLE DOES NOT REQUIRE ADDITIONAL SPARE WIRES TO BE ROUTED WITH MAINLINE. 16.1. TWO-WIRE CONTROL SURGE ARRESTORS SHALL BE INSTALLED PER
- MANUFACTURER'S RECOMMENDATIONS. ARRESTORS ARE NOT DEPICTED ON PLANS
- 17. TREES IN TURF ARE NOT IRRIGATED BY DRIP SYSTEM. DRIP LATERAL ROUTED NEAR TREES IN TURF ARE NOT TO RECEIVE DRIP IRRIGATION. TREES IN NATIVE SEEDED AREAS ARE IRRIGATED ON DRIP SYSTEM.
- 18. VALVES FOR NATIVE SEEDED AREAS SHALL BE ON A SEPARATE PROGRAM.
- 19. NATIVE SEEDED AREAS ARE TO BE IRRIGATED WITH A BELOW GRADE SYSTEM BUT UTILIZED FOR ESTABLISHMENT OF SEED. SYSTEM IS NOT INTENDED TO OPERATE BEYOND ESTABLISHMENT.
- 20. NO IRRIGATION EQUIPMENT, INCLUDING BUT NOT LIMITED TO, MAINLINE, VALVES, AND SPRINKLERS, SHALL BE INSTALLED WITHIN 3' OF NEW BUILDING FOUNDATION.
- 21. HYDRANT METERS IRRIGATE ONLY NATIVE SEEDED AREAS, NO SHRUBS OR TREES SHALL BE IRRIGATED FROM THIS SYSTEM. ALL COMPONENTS MUST BE INSTALLED ABOVE GRADE PER CASTLE PINES METRO DISTRICT STANDARDS. COORDINATE WITH CRAIG MILLER AT CASTLE PINES METRO DISTRICT.

### EMITTER SCHEDULE

PLANT TYPE	EMITTER TYPE	GPH/OUTLET	NO. OF EMITTERS	TOTAL FLOW
GROUNDCOVER	SINGLE OUTLET	I GPH	1	I GPH
PERENNIALS	SINGLE OUTLET	I GPH	1	I GPH
I GAL. SHRUB	SINGLE OUTLET	I GPH	1	I GPH
5 GAL. SHRUB	SINGLE OUTLET	I GPH	2	2 GPH
TREE IN SHRUB BED	SINGLE OUTLET	I GPH	4-8	4-8 GPH
TREE IN NATIVE SEED	INLINE DRIP	O.6 GPH	N/A	N/A

I. MULTIPLE OUTLET EMITTERS CAN BE UTILIZED IN DENSELY PLANTED AREAS AND FOR TREES IN SHRUB

2. NETAFIM TECHLINE CV DRIP TUBING MODEL TLCV6-18 FOR NATIVE TREE RINGS.

10 20

FRONTERRA

LANDSCAPE ARCHITECTURE

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PROJECT INFORMATION: PROJECT NUMBER: 177-2101WL DATE: 09-21-21 PHASE: SDP

REVISIONS:

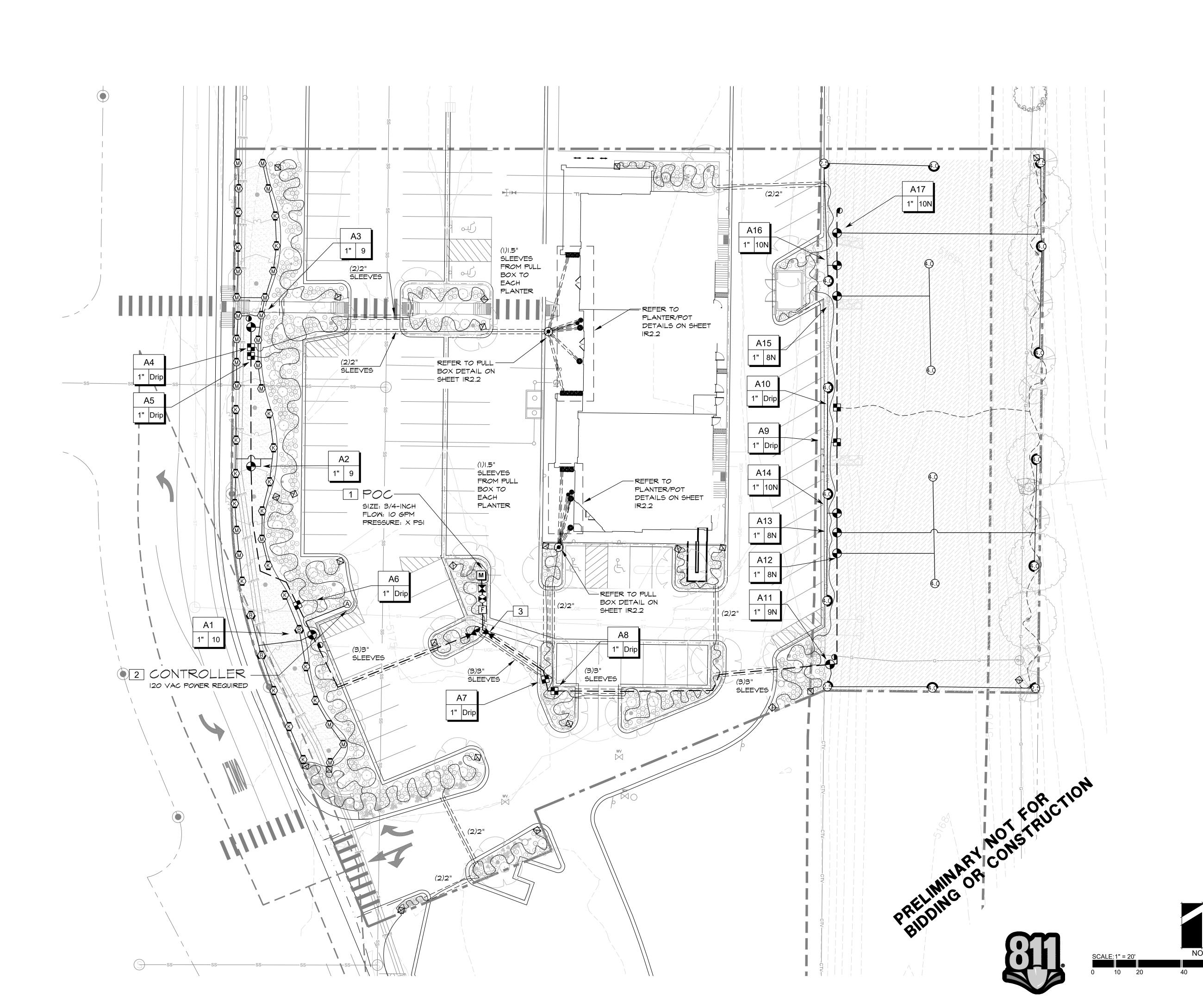
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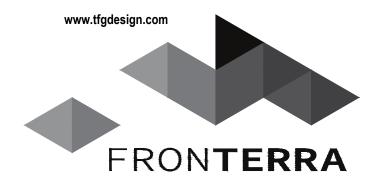
**IRRIGATION LEGEND AND NOTES** 

**IR1.0** 

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LANDSCAPE ARCHITECTURE PLANNING

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7440 5TH STRI WELLINGTON. CO

PROJECT INFORMATION:
PROJECT NUMBER: 177-2101WL
DATE: 09-21-21
PHASE: SDP

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IRRIGATION PLAN

SHEET NUMBER:

**IR1.1** 

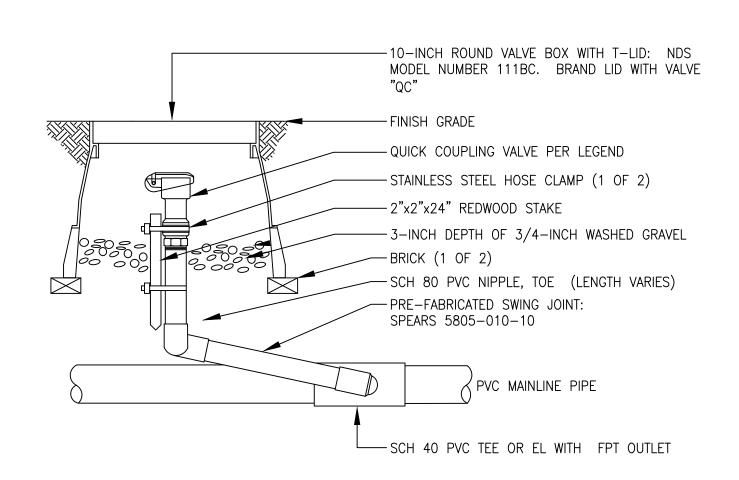
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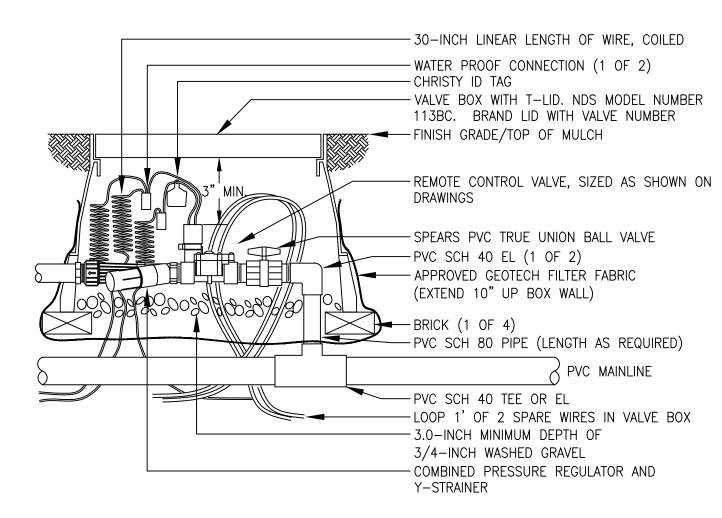
1. INSTALL BACKFLOW DEVICE IN ACCORDANCE WITH ALL STATE AND LOCAL CODE REQUIREMENTS. 2. SLOPE TOP SURFACE OF PAD AT 0.5 % WITH BROOM FINISH. MAKE PIPE SLEEVES WITH 1-1/2 INCH LARGER DIAMETER PIPE THAN PENETRATING PIPE SIZE 3. ALL HINGED CONNECTION LOCATIONS AND HARDWARE TO BE TAMPER PROOF.

BACKFLOW PREVENTION

4. ALL WELD JOINTS SHALL BE CONTINUOUS AND GROUND SMOOTH.

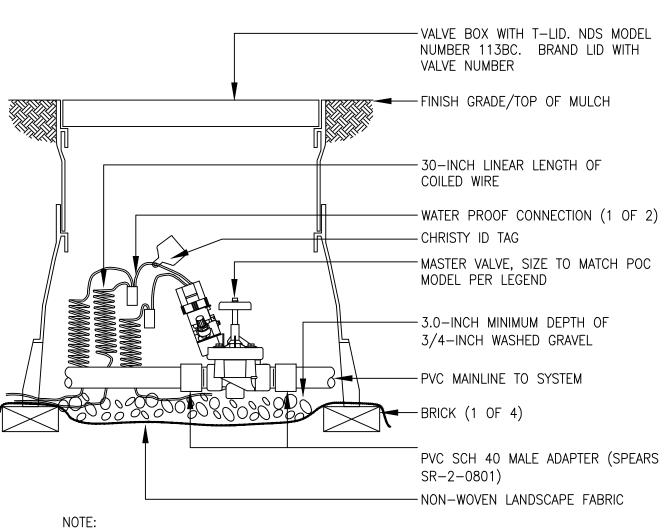


# QUICK COUPLING VALVE **ASSEMBLY**



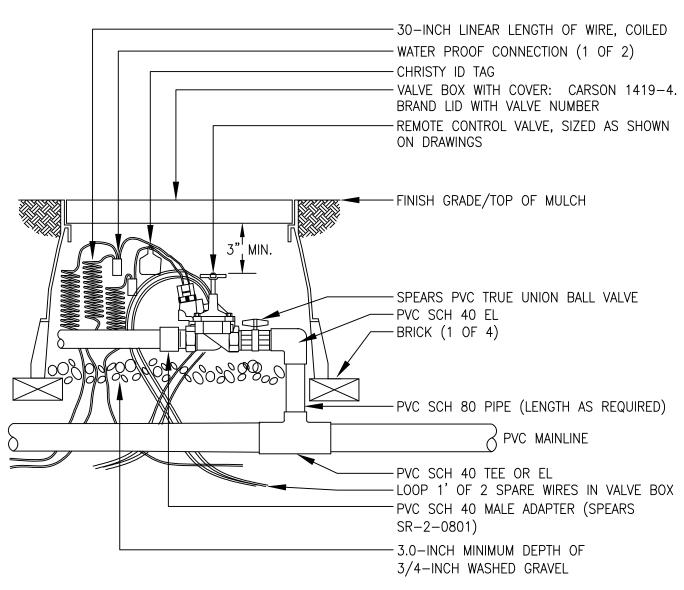
1. USE BARBED INSERT FITTINGS ON DRIP LATERAL PIPE WITH HOSE CLAMPS. PLACE CLAMPS ON DRIP TUBING DIRECTLY OVER BARBED AREA OF FITTING. PINCH CLAMPS ARE NOT ACCEPTABLE. 2. UTILIZE RAIN BIRF XCZ-LF-100-PRF FOR FLOWS LESS THAN 5 GPM.



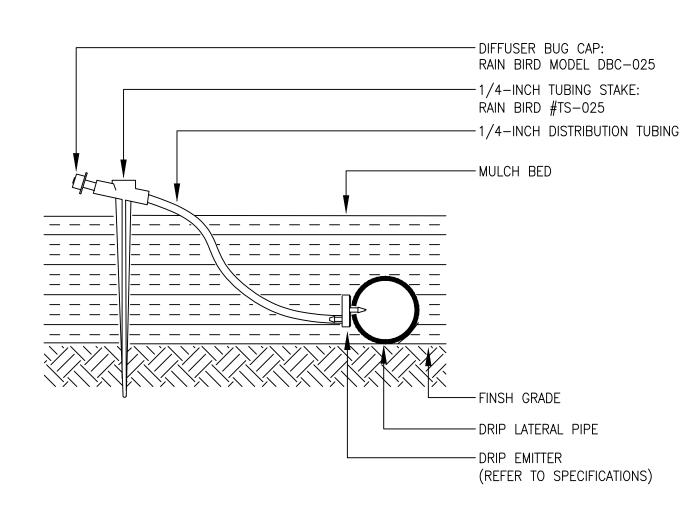


1. FOR 2-WIRE CONTROL SYSTEMS, DIRECT WIRE MASTER VALVE INTO MV SENSOR PORT. DECODER IS AN OPTIONAL CONNECTION.

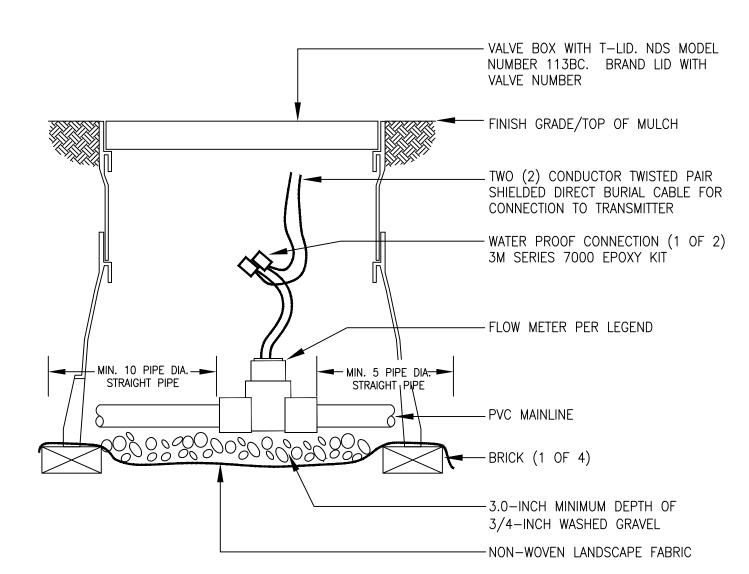
# MASTER VALVE **ASSEMBLY**



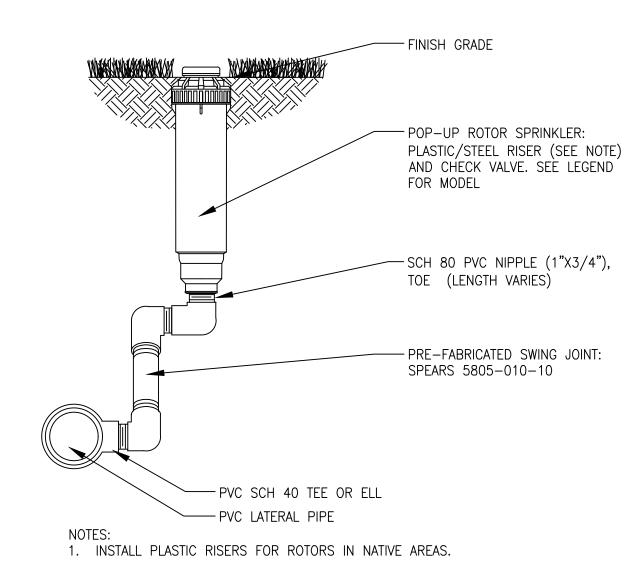
# REMOTE CONTROL TURF VALVE ASSEMBLY



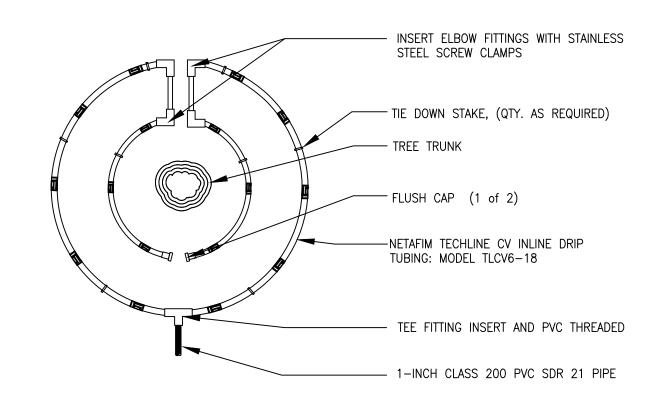
SINGLE OUTLET EMITTER **ASSEMBLY** 



**FLOW SENSOR ASSEMBLY** 

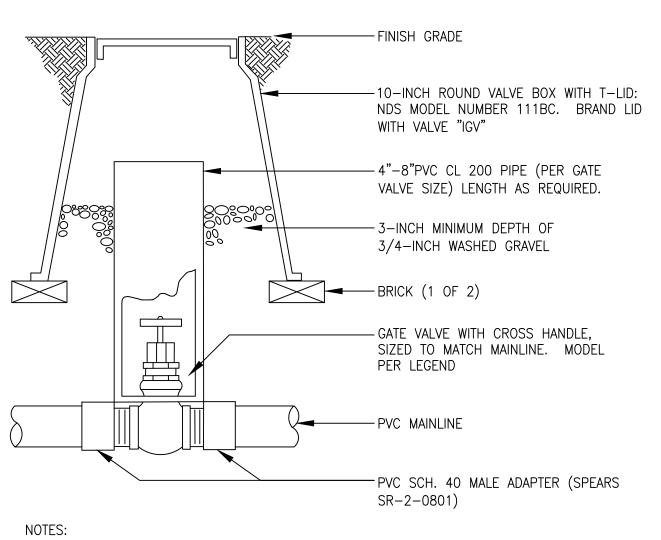


6-INCH GEAR-DRIVEN **ROTOR ASSEMBLY** 



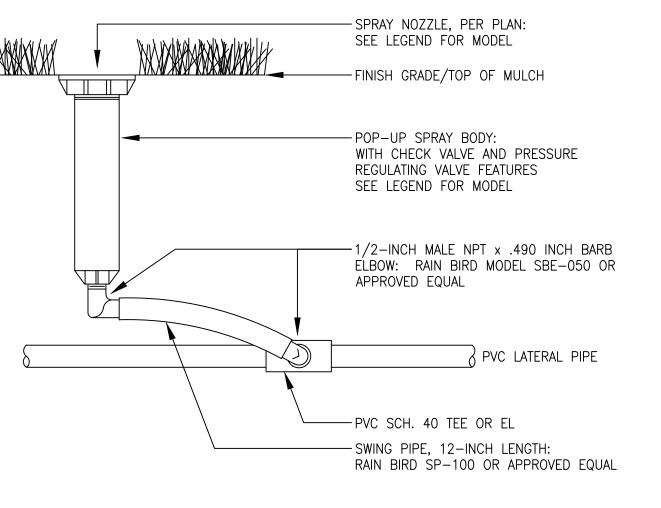
1. CONTRACTOR SHALL INSTALL ALL DRIP TUBING IN NATIVE AREAS 2-3" BELOW GRADE IF MULCH IS NOT PRESENT. IF MULCH IS PRESENT, LAY TUBING ON FINISHED GRADE BELOW MULCH. 2. DIAMETER OF DRIPLINE RINGS ARE DEPENDENT ON TREE CANOPY SIZE AND SHALL BE ADJUSTED IN THE FIELD PER CONTRACTOR. SUGGESTED PLACEMENT OF 2' DIAMETER AND 3' DIAMETER AROUND TREE. 3. SHRUBS IN NATIVE SHALL UTILIZE SINGLE OUTLET EMITTERS.

INLINE DRIP PIPE ASSEMBLY FOR TREES IN NATIVE OR TURF



1. NOMINAL SIZE OF GATE VALVE TO MATCH NOMINAL MAINLINE SIZE.





1. UTILIZE 40 PSI PRESSURE REGULATING STEM FOR HEADS WITH ROTARY NOZZLES. 2. UTILIZE 30 PSI PRESSURE REGULATING STEM FOR HEADS WITH SPRAY NOZZLES.

6-INCH POP-UP SPRAY SPRINKLER ASSEMBLY

PRELIMINARY CONSTRUCTION
PRELIMINARY CONSTRUCTION

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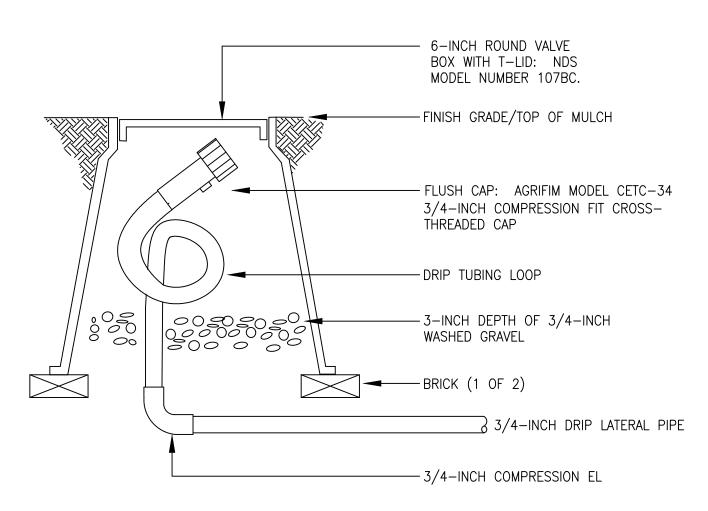
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SHEET TITLE: **IRRIGATION DETAILS** 

**IR2.1** 

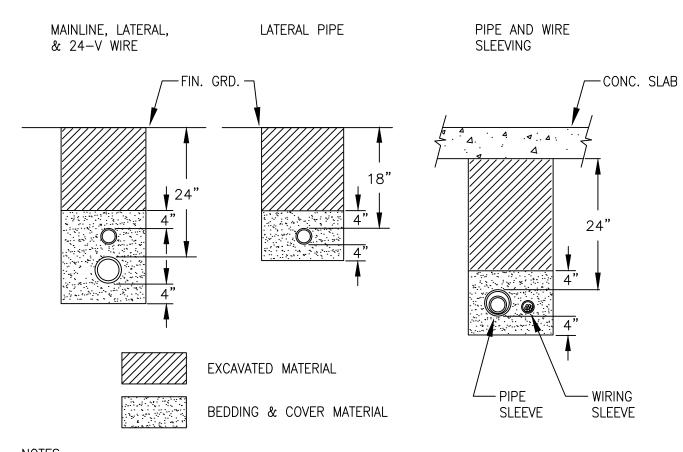
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1. LOOP IRRIGATION DRIP TUBING INSIDE VALVE BOX FOR EXTENSION OUTSIDE OF BOX DURING BLOWOUT.

# DRIP FLUSH CAP **ASSEMBLY**

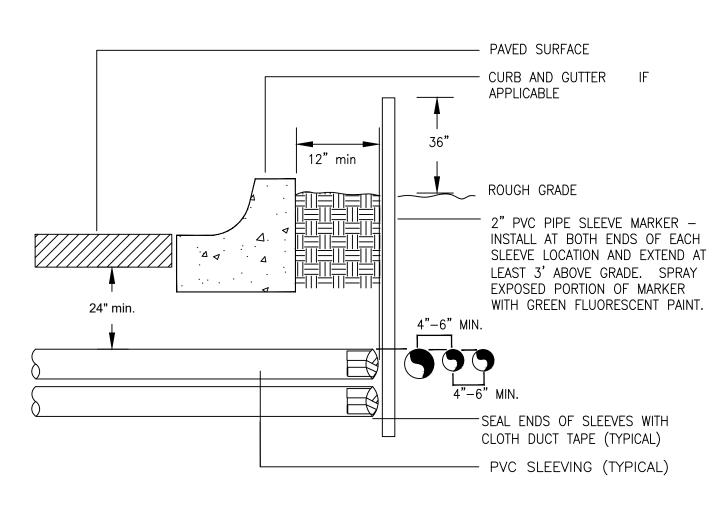


1. SLEEVE ALL PIPE AND WIRE SEPARATELY.

2. ALL PIPE TO BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS. "SNAKE" UNSLEEVED PLASTIC PIPE IN TRENCH. PROVIDE A MINIMUM OF 2" CLEARANCE TO SIDE OF TRENCH AND BETWEEN 3. ALL 120-V WIRING SHALL BE INSTALLED IN ACCORDANCE WITH LOCAL CODE REQUIREMENTS. TAPE

AND BUNDLE 24-V WIRE EVERY 10' AND PROVIDE LOOSE 20" LOOP AT ALL CHANGES OF DIRECTION

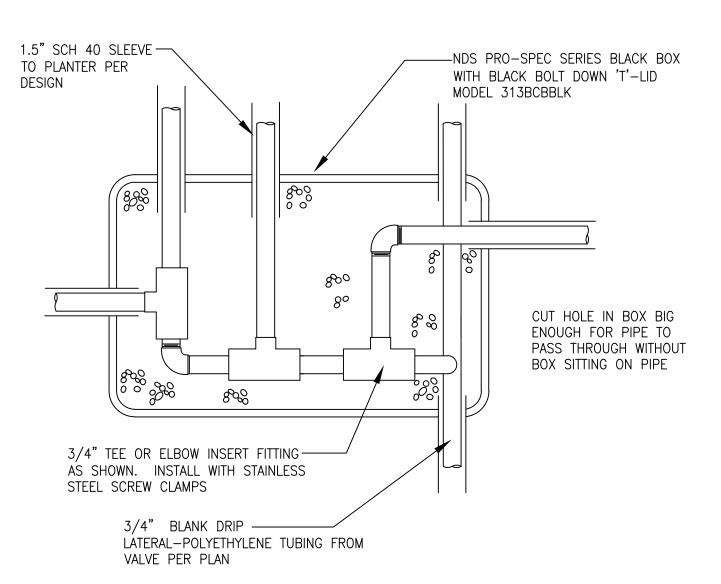
TYPICAL TRENCHING DETAIL



1) ALL SLEEVING TO B E CLASS 200 BE PVC, SIZED AS NOTED.

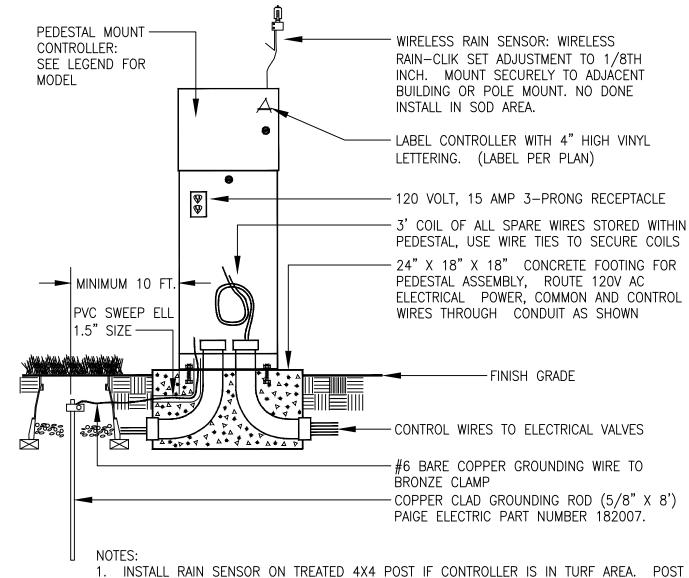
2) INSATLL SLEEVES IN SIDE-BY-SIDE CONFIGURATION WHERE MULTIPPLE SLEEVES ARE TO BE INSTALLED. SPACE SLEEVES 4" TO 6" APART. DO NOT STACK SLEEVES VERTICALLY.

# TYPICAL SLEEVING DETAIL

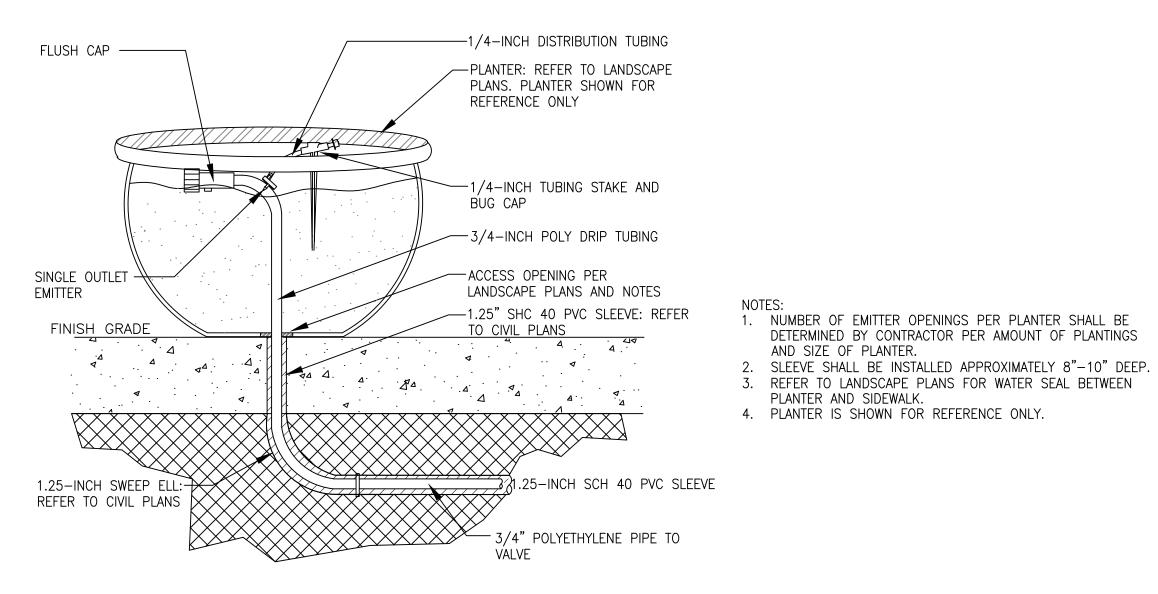


1. INSTALL VALVE BOX PER DRIP VALVE DETAIL, INCLUDING BRICKS, ROCK, ETC.





PEDESTAL MOUNT CONTROLLER **ASSEMBLY** 

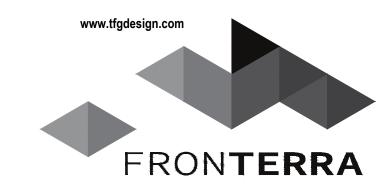


DETERMINED BY CONTRACTOR PER AMOUNT OF PLANTINGS

AND SIZE OF PLANTER.

TO BE MOUNTED IN SHRUB BED TO AVOID BEING IRRIGATED BY OVERHEAD SPRINKLERS.

TYPICAL PLANTER POT DRIP



LANDSCAPE ARCHITECTURE **PLANNING** 

**TFG Design, LLC** P.O. Box Loveland CO 80539 (970) 669.3737

josh@fronterra.design

P.O. BOX 369 Ault, CO 80610 970.402.3047 Michelle@MPiDesignsllc.com

Andrew Rauch FR Companies 125 South Howes Street Fort Collins, Colorado 80521

andrew@fr-corp.com

S BLO( COMMONS ANDSCAPE SUE

BLOCK

RE CEP. N O

PROJECT INFORMATION: PROJECT NUMBER: 177-2101WL DATE: 09-21-2021 PHASE: SDP

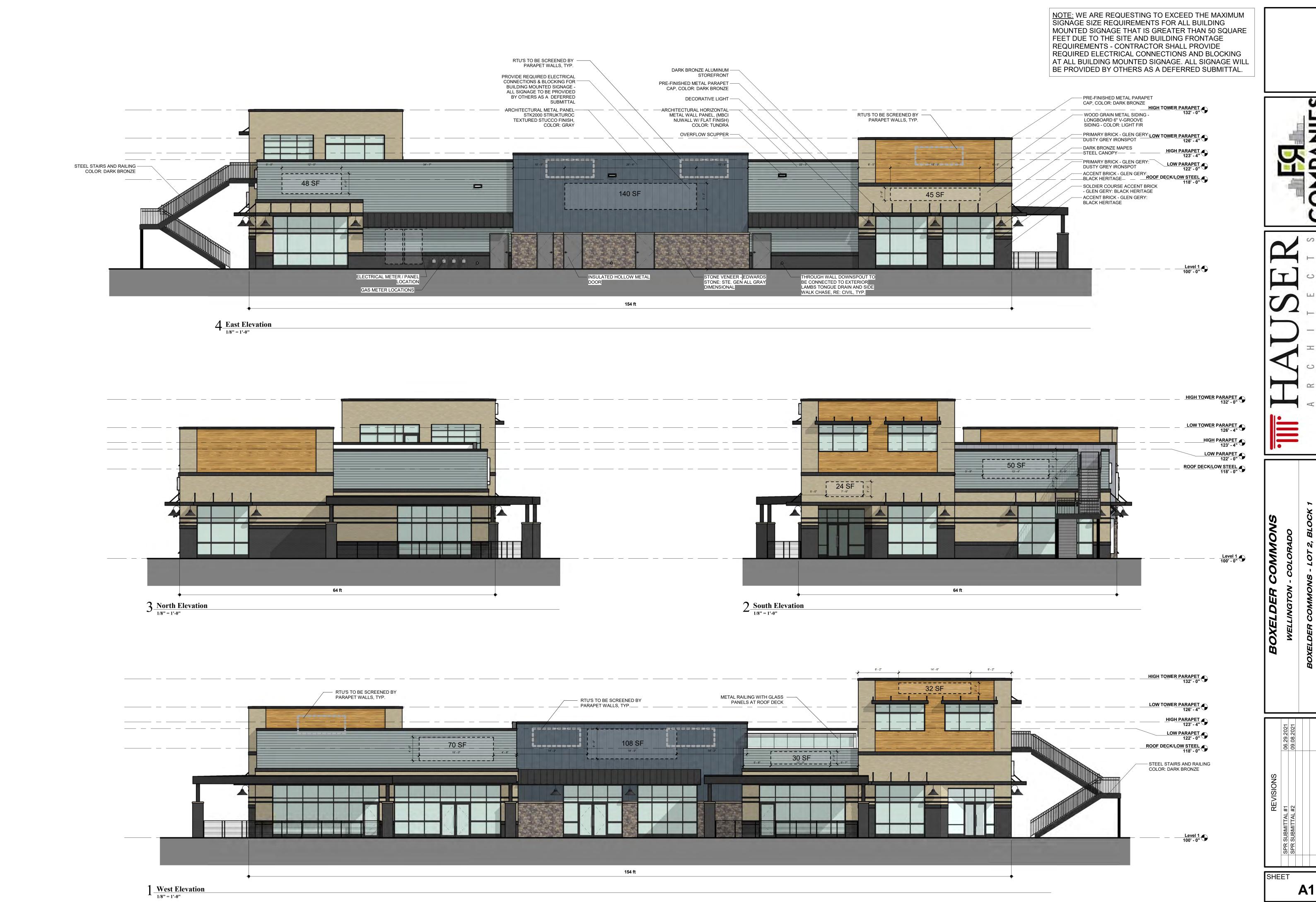
REVISIONS:

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**IRRIGATION DETAILS** 

**IR2.2** 

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BOXELDER COMMONS 09.08.2021 PERSPECTIVES

PROPOSED

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SHEET





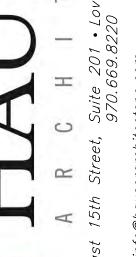


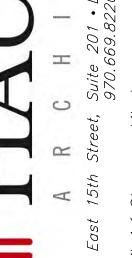






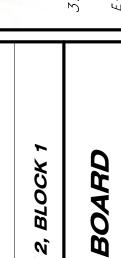


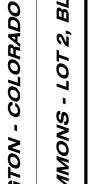


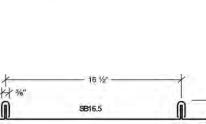




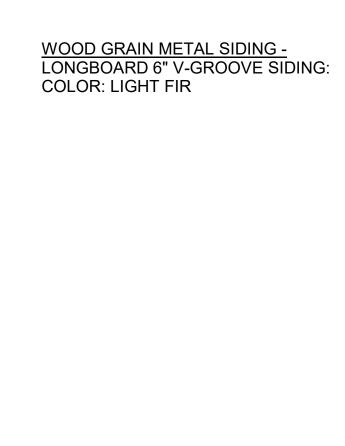








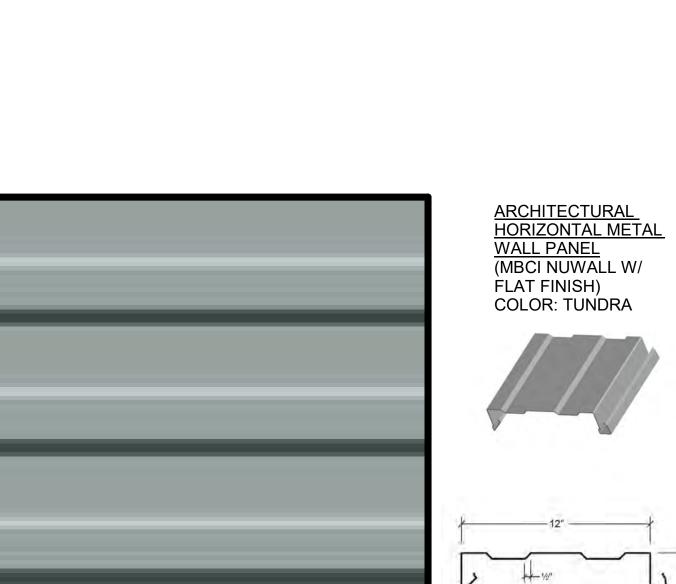
STANDING SEAM METAL ROOF COLOR: DARK BRONZE

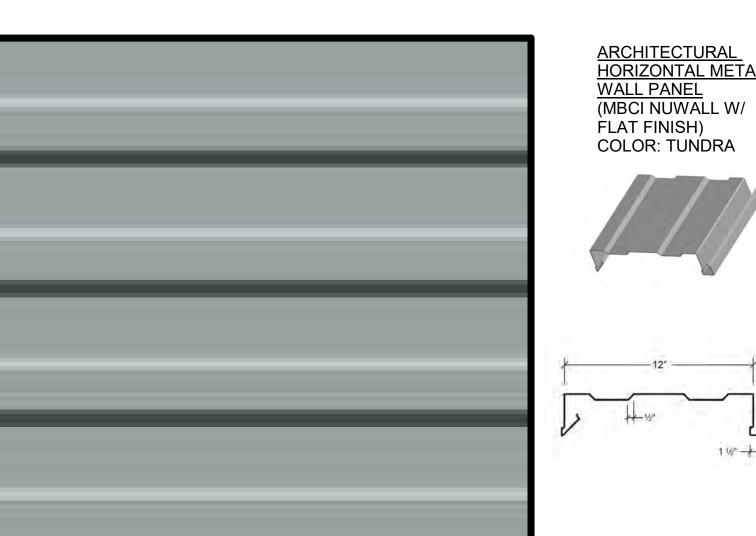


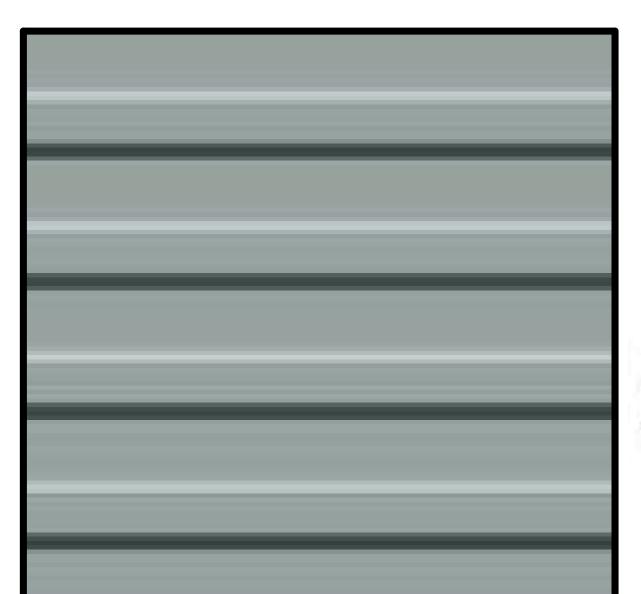


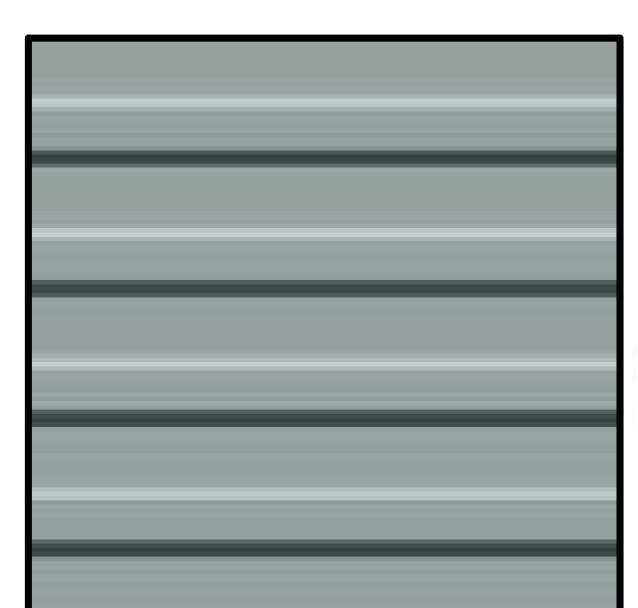


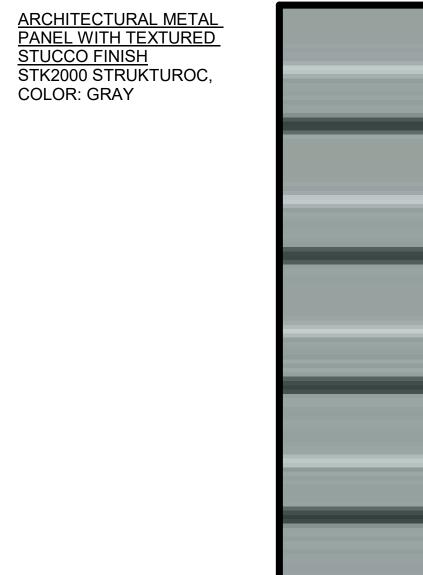




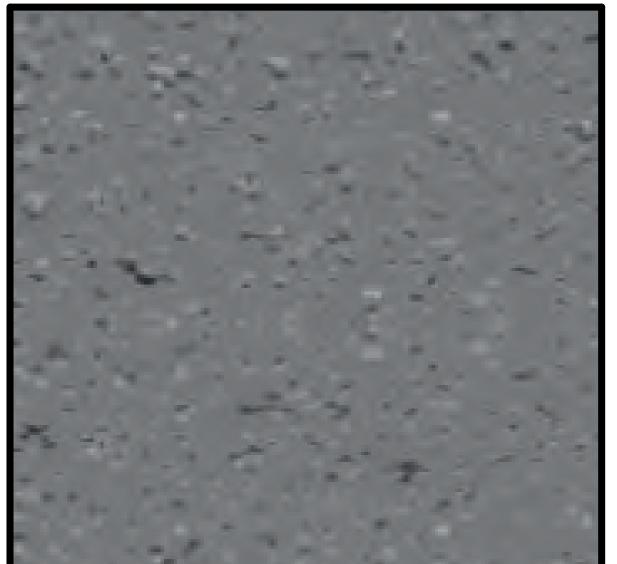


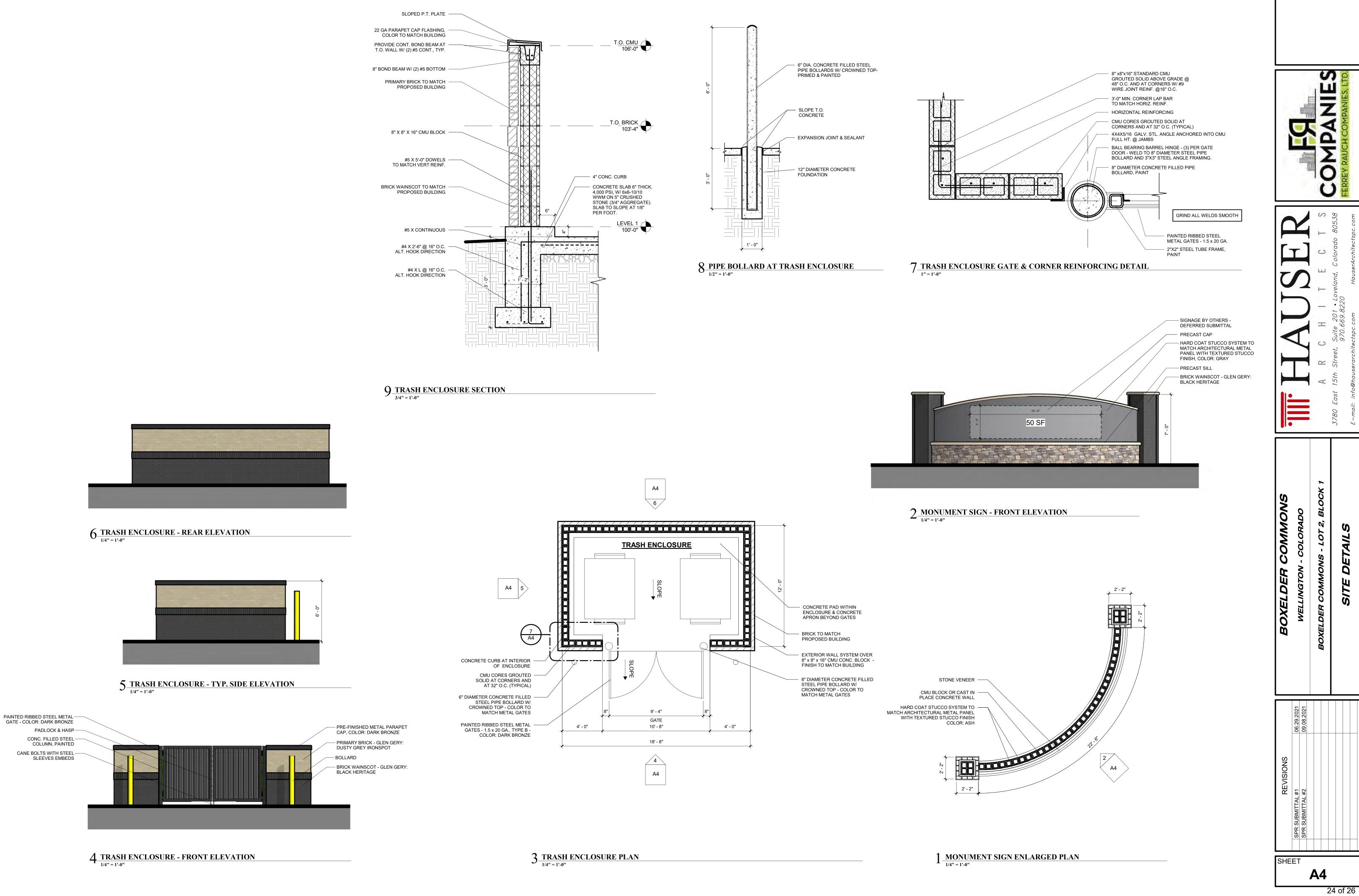




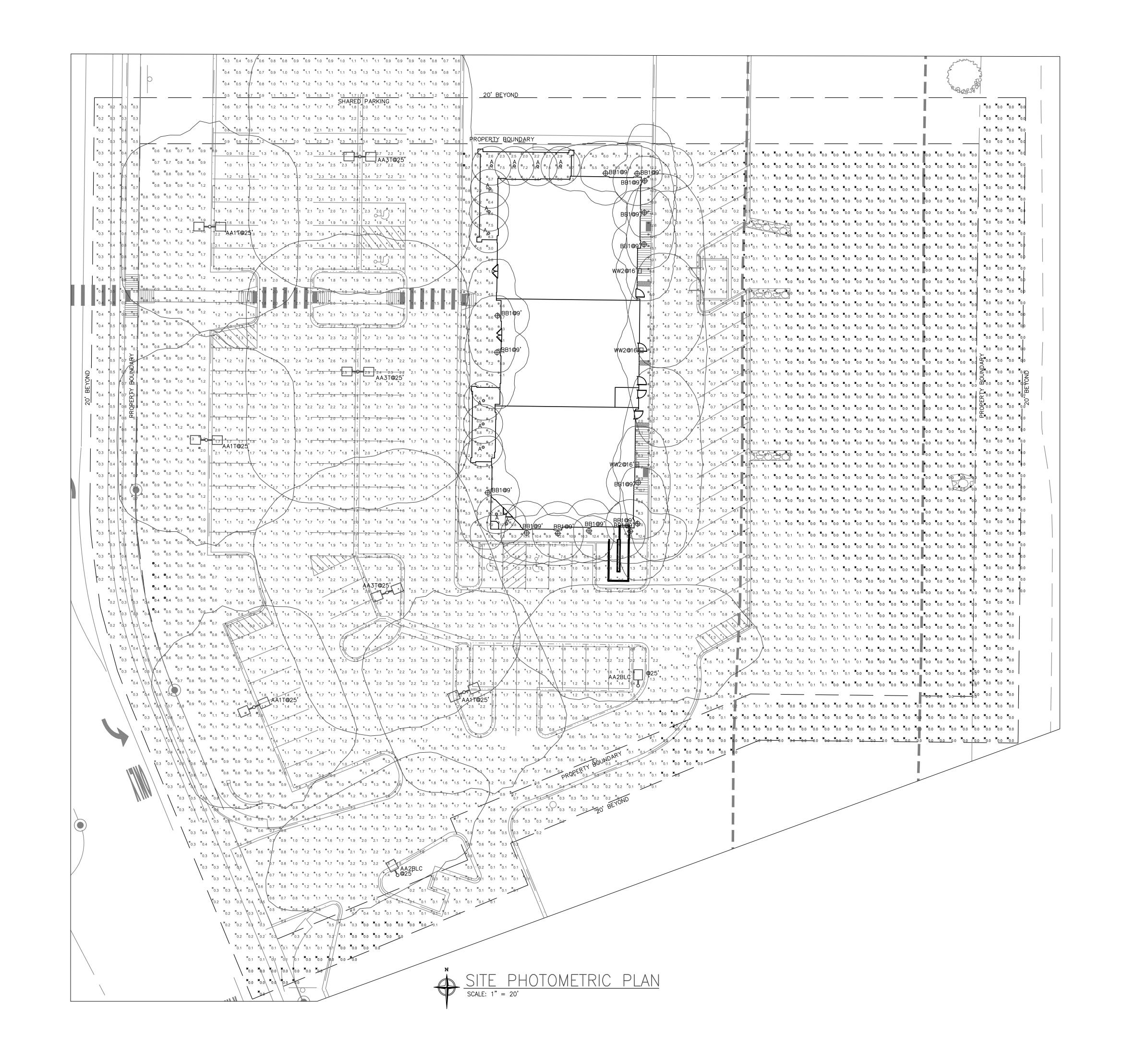


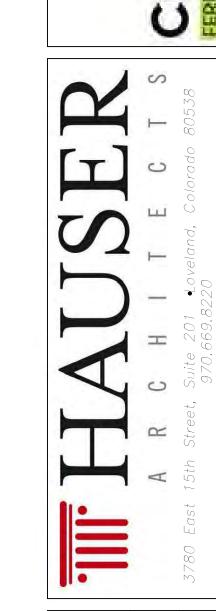
STONE VENEER -EDWARDS STONE: STE. GEN ALL GRAY DIMENSIONAL





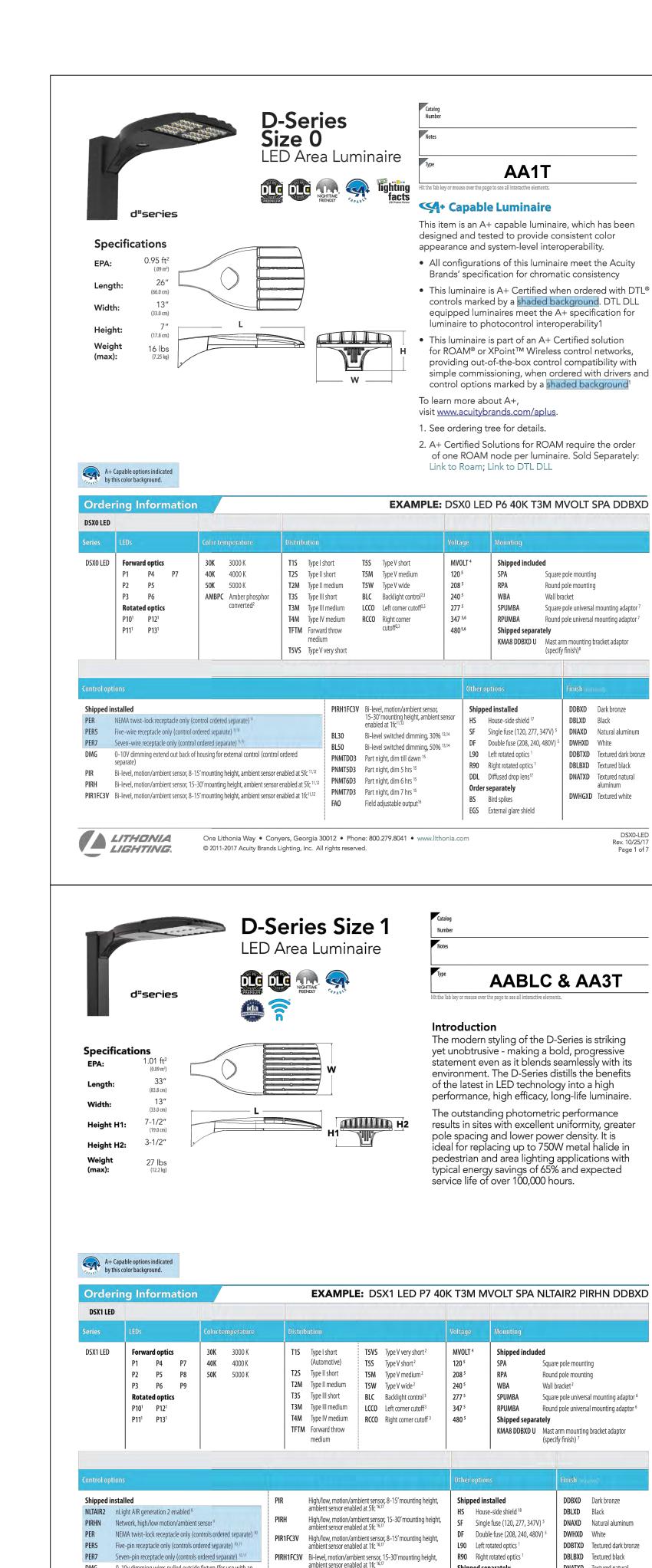
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DMG 0-10v dimming wires pulled outside fixture (for use with an

external control, ordered separately) 13

DS Dual switching 13,14,15

LITHONIA LIGHTING.

COMMERCIAL OUTDOOR

Shipped separately

EGS External glare shield

BS Bird spikes 19

Field adjustable output 15

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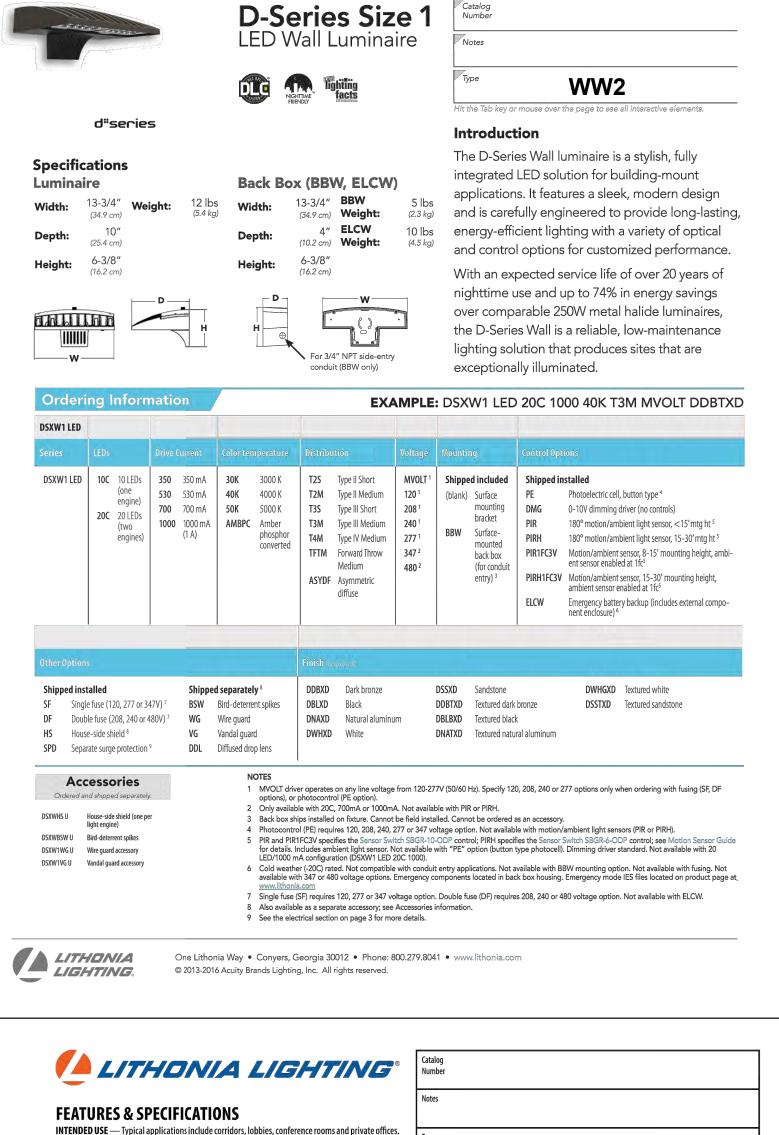
One Lithonia Way • Conyers, Georgia 30012 • Phone: 1-800-705-SERV (7378) • www.lithonia.com

**DNATXD** Textured natural

DWHGXD Textured white

DSX1-LED

Rev. 02/05/20



**CONSTRUCTION** — Galvanized steel mounting/plaster frame; galvanized steel junction box with bottom-hinged access covers and spring latches. Reflectors are retained by torsion springs.

Vertically adjustable mounting brackets with commercial bar hangers provide 3-3/4" total adjustment.

Two combination ½"-3/4" and four ½" knockouts for straight-through conduit runs. Capacity: 8 (4 in, 4

Passive cooling thermal management for 25°C standard; high ambient (40°C) option available. Light

Self-flanged anodized reflectors in specular, semi-specular, or matte diffuse finishes. Also available in

**ELECTRICAL** — Multi-volt (120-277V, 50/60Hz) eldoLED 0-10V dimming drivers mounted to junction

LISTINGS — Certified to US and Canadian safety standards. Damp location standard (wet location,

ATION Lead times will vary depending on options selected. Consult with your sales representative.

05 500 lumens 25 2500 lumens

10 1000 lumens 30 3000 lumens

35/ 3500K 15 1500 lumens 40 4000 lumens

40/ 4000K 20 2000 lumens 50 5000 lumens

Single fuse

Batterypack

White painted flange

Black painted flange

Batterypack (remote)

NPS80EZ<sup>4</sup> nLight® dimming pack controls 0-10V

LO6 Downlight AR Clear

WR<sup>2</sup> White

emergency circuit.

Chicago Plenum

Wet location

High ambient option

2 Not available with finishes.

Not available with emergency options.

lumenpulse

4 Must specify voltage 120V or 277V. 5 Available with clear (AR) reflector only.

LW6 Wallwash

LSS Semi-specular

LS Specular

General illumination lighting with 1.0 S/MH and 55° cutoff to source and source image.

0-10V dimming fixture requires two (2) additional low-voltage wires to be pulled.

WARRANTY — 5-year limited warranty. Complete warranty terms located at

**Note:** Actual performance may differ as a result of end-user environment and application.

All values are design or typical values, measured under laboratory conditions at 25 °C.

www.acuitybrands.com/CustomerResources/Terms and conditions.aspx

27/ 2700K

30/ 3000K

out). No. 12 AWG conductors, rated for 90°C.

engine and drivers are accessible from above or below ceiling.

**OPTICS** — LEDs are binned to a 3-step SDCM; 80 CRI minimum.

LED light source concealed with diffusing optical lens.

box, 10% or 1% minimum dimming level available.

Specifications subject to change without notice.

70% lumen maintenance at 50,000 hours.

Accommodates 12"-24" joist spacing.

Max ceiling thickness 1-1/2".

white and black painted reflectors.

covered ceiling optional).

EZ10 eldoLED 10% 0-10V

EZ1 eldoLED 1% 0-10V

Accessories: Order as separate catalog number.

GRA68 JZ

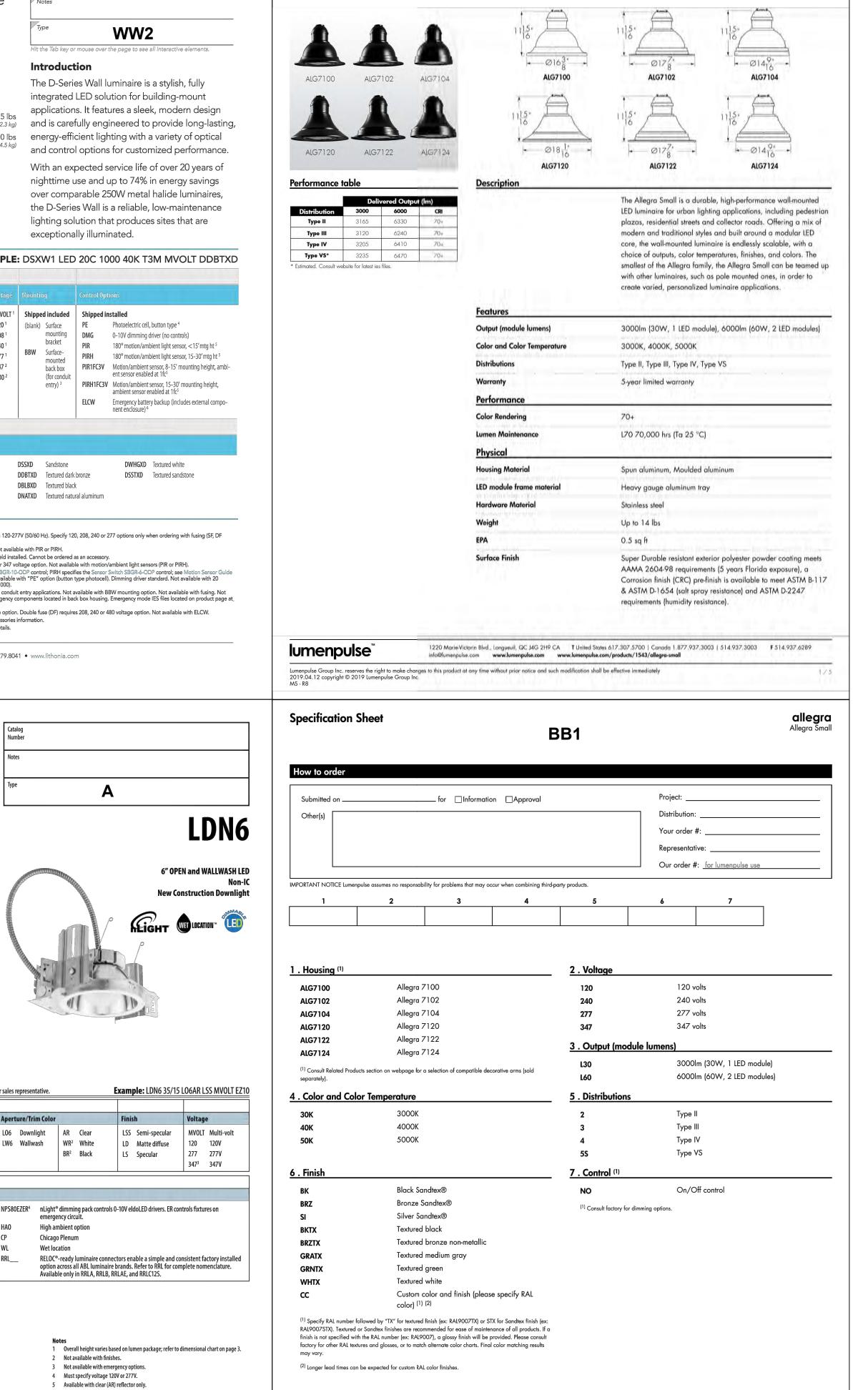
DOWNLIGHTING

EAC ISSM 375 Compact interruptible emergency AC power system

EAC ISSM 125 Compact interruptible emergency AC power system

Oversized trim ring with 8" outside diameter 1

Sloped ceiling adapter. Refer to <u>TECH-SCA</u> for more options.

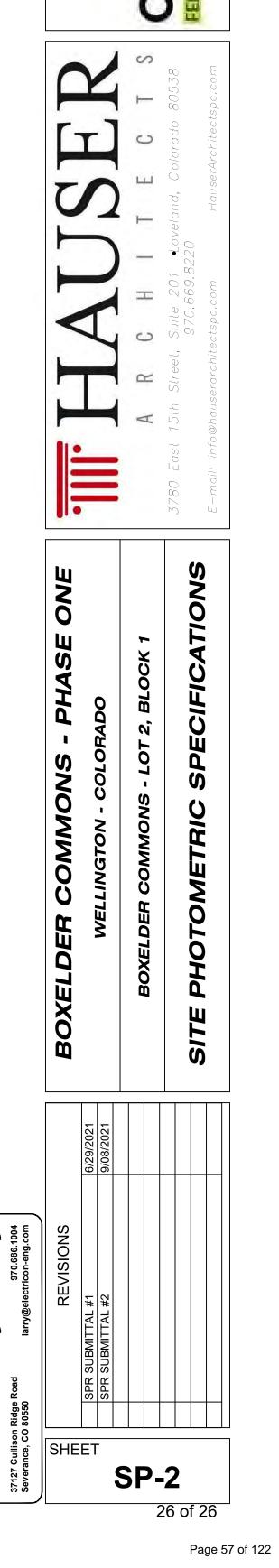


info@lumenpulse.com www.lumenpulse.com www.lumenpulse.com/products/1543/allegra-smal

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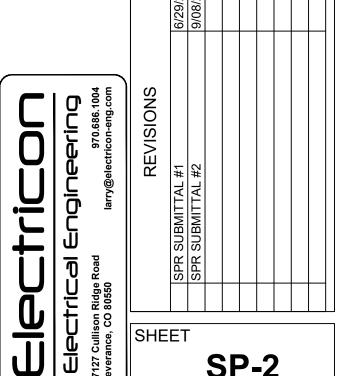
BB1

**Specification Sheet** 



Job#21082

allegra



# Site Plan Review

Lot 2B, Block 1, Boxelder Commons



# **Multi-Tenant, Mixed Uses**

Applicant: FR Development Agent: Northern Engineering, Shane Ritchie









## **General Location**



# **Background Information**

- Tenants are unidentified
- Zoned C-3 Highway Commercial
  - Proposed uses permitted
- Desire to have 2 restaurants and 1 retail establishment
  - Restaurant space = 8,999 square feet (including rooftop deck)
  - Retail space = 2,595 square feet

# **Current application**

Seeking approval of site plan for multi-tenant mixed use building



#### Site Plan Review: Overview

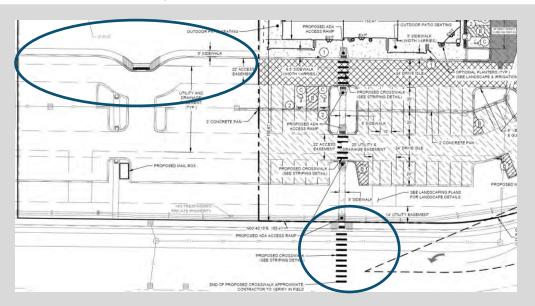
- Staff has no major concerns about the site.
  - Has been reviewed by Engineering and WFPD.
- Parking count is under minimum required; applicant posed solution.
- Applicant is requesting to go over the sign code allowance.
- One drive aisle on east side of the building is only 21'; applicant has already received approved variance from WFPD.
- Minor lighting concerns to be addressed.
- Some minor edits and clarifications are needed and outlined in staff report.

#### **PARKING**

- Site is under-parked by 23 spaces for proposed uses
  - Retail = 1 parking space/200 sqft.
  - Restaurant = 1 parking space/100 sqft.
  - Spaces meet minimum requirements and have adequate ADA parking
- At conceptual, staff asked for greater amenities for walking and bicycling
- At conceptual, staff asked for a parking analysis
- Applicant using an adequate "worst case scenario" for use-mix

#### PARKING: WALKING AND BICYCLING AMENITIES

- Providing more bicycle racks (6 spaces)
- Extending sidewalk onto other site for safety
- Added mid-block crossing on 5th



#### **PARKING: ANALYSIS**

In staff report, under "Parking" there are two charts.

- "Current Proposal" = shows site is underparked by 23 spaces
- Applicant owns undeveloped lot between Dollar General and site
  - Parking lot on middle lot can provide 64 spaces of overflow parking for current development
- "Future Building Proposal" = for demonstration only
  - Applicant thinking about future restrictions and agreements to be made in future for viability of middle building
  - Demonstrates need for shared parking agreement with other businesses in the future

#### **SIGNAGE**

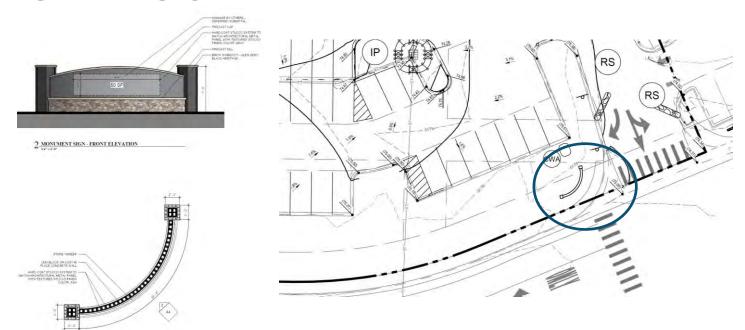
- At direction of staff, applicant was encouraged to pose potential location and square footage of the signage for tenants
- Proposing wall sign square footage
- Proposing monument sign
- Applicant requesting to be over the amount of square footage allowed by the code

## **WALL SIGNS**





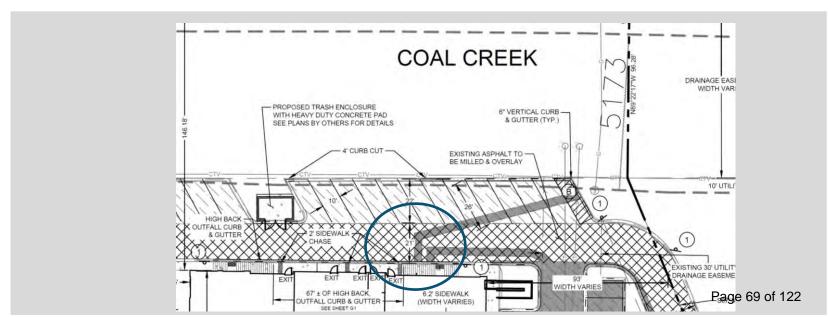
## **MONUMENT SIGN**





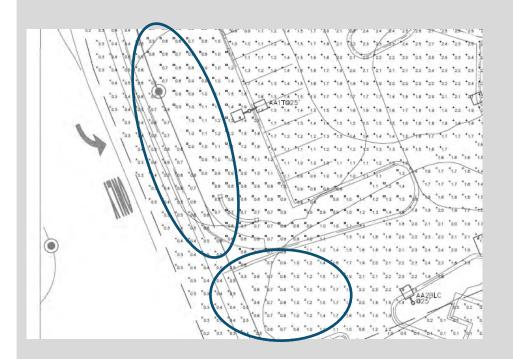
#### **EAST AISLE**

- 21'
- Already received approval for variance from WFPD's Standards
- May need one-way signage or pavement markings to be added for driver ease and understanding



### **LIGHTING**

- Will there be lighting for the monument sign?
- Over maximum on west side
  - To provide for sidewalk because there are no lights on 5th
- Parking entrance below minimum
  - Reevaluate options





## **LIGHTING**

- No concern about light spill over to north (future parking lot) and east (drainage)
- Address dark lighting by trash enclosure
- Address dark lighting in east parking lot



#### **Staff Assessment and Recommendation**

- Concerns addressed following conceptual review.
- For most part, minimums are met or can be with some minor edits to site plan.
- Staff requests to approve any additional changes administratively

Recommend to approve pending final engineering review and all comments being addressed.

