BMP MAP LEGEND

- .... LIMITS OF DISTURBANCE
- ——— PERIMETER BMP (EROSION CONTROL LOG PLACED AT THE BASE OF TEMP. FENCE W/ WINDSCREEN ATTACHED)
- INLET PROTECTION
- ← FLOW DIRECTION
- VTC (VEHICLE TRACK-OUT CONTROL)
- PORTABLE TOILETS (TBD)
- WASTE CONTAINER (TBD)
- CONCRETE WASHOUT (TBD)
- STAGING AREA (TBD)
- TEMPORARY SEDIMENT TRAP

green globe ENVIRONMENTAL

OPERATOR: JAYNES CORPORATION

TOTAL SITE AREA: 2 ACRES
TOTAL DISTURBED AREA: 2 ACRES

RECEIVING WATERS: RIO GRANDE RIVER (TIJERAS ARROYO TO ALAMEDA BRIDGE)

REFER TO THE ESC BMP DETAILS (ESC-2) FOR INSTALLATION, INSPECTION AND MAINTENANCE REQUIREMENTS.

GRADING PLAN BY OTHERS

LUMINARIA SENIOR COMMUNITY

TEMPORARY EROSION AND SEDIMENT CONTROL PLAN

Drawn By: M. VALLEJOS, CPESC, CISEC	12/02/2020

ESC-1

CERTIFIED PROFESSIONAL IN EROSION AND SEDIMENT CONTROL
CPESC
MATHEW F. VALLEJOS, No. 9108

SCALE 1"=20'
0 10 20 40 60

DISCHARGE POINT/OUTFALL #1
DISCHARGE POINT/OUTFALL #2
DISCHARGE POINT/OUTFALL #3
DISCHARGE POINT/OUTFALL #4
DISCHARGE POINT/OUTFALL #5

TIJERAS ARROYO, LOCATED 2.20 MILES TO THE SOUTH.

F.F. = 5479.00

APPROX. ROAD HIGH POINT

EXISTING WALL(S) SEE ARCHITECTURAL

SEE CG-501 FOR ENLARGED DETAIL

Silt Sock
EROSION CONTROL PRODUCTS

8" Ultra

Construction		Tubular Knit
Chemical Reaction		Inert to most soil chemicals including Alkaline, weak acids and salt
Properties	Fiber Material	Multi-Filament Polypropylene
	Color	Black
	Melting Point	166°c	330°F
	UV Protection	Photodegradable/ UV Stabilized
	UV Resistance ASTM G-155	100% at 1000 hr.
	Approx. Life Expectancy*	2 – 4 years
	Mesh Opening	1/8"
Roll Properties (Approx.)	Roll Weight	11.8 kg	26 lbs.
	Roll Length - Relaxed	174 m	540 ft.
Applied Roll Length (Approx.)	8" Diameter	146 m	475 ft.
Strength Properties	ASTM 6241 & ASTM 5035	222 psi
Packaging	Package Type	Roll

SILT SOCK INSTALLATION GUIDELINES

SLOPE INTERRUPTION

1. A SLIGHT ENTRENCHMENT MAY BE REQUIRED ON STEEPER SLOPES TO ENSURE INTIMATE GROUND CONTACT.
2. REMOVE SEDIMENT FROM THE UPSLOPE SIDE OF THE SILT SOCK WHEN ACCUMULATION HAS REACHED 1/2 OF EFFECTIVE HEIGHT OF DEVICE.
3. LOOSE FILTER MEDIA MAY BE BACKFILLED ON THE UPSLOPE SIDE OF SOCK TO ENHANCE PERFORMANCE.
4. HARDWOOD STAKES 2"x2"x24" (NOMINAL) ARE SUGGESTED.

PERIMETER CONTROL & OVERLAPPING

INLET PROTECTION

DITCH CHECK

INSTALL SILT SOCK PERPENDICULAR TO FLOW WITH ENDS CURLED SLIGHTLY UPSTREAM TO PREVENT HIGH WATER FROM GOING AROUND THE ENDS. SLOW AND SPREAD WATER TO REDUCE CHANNELING AND EROSION.

PYRAMID INSTALLATION STAKING

A PYRAMID OF SMALLER DIAMETER SILT SOCKS WILL INCREASE THE EFFECTIVE HEIGHT OF THE DEVICE WHEN LARGER DIAMETER SOCKS ARE NOT READILY AVAILABLE OR EASY TO INSTALL.

1. THESE GUIDELINES ARE BASED UPON MANUFACTURERS RECOMMENDATIONS. PROJECT SPECIFICATIONS MAY SUPERSEDE THESE GUIDELINES.
2. REFER TO REGULATORY AUTHORITY OR PROJECT ENGINEER FOR DETAILED INSTALLATION PROCEDURES.
3. WOOD FILLER MATERIAL IS PROPERLY SIZED, BIODEGRADABLE, WEED , SEED & DISEASE FREE AND ENVIRONMENTALLY SOUND.

Silt Sock
EROSION CONTROL PRODUCTS

(608) 438-7625
WWW.SILTSOCK.NET

Coir Mat Inlet Protection

UV Resistance (ASTM D 4355 – 500 hour exposure) Tensile Properties (ASTM D 5035/ECTC)
(4 inch wide strip specimen)

Baseline Properties		500 Hour Exposed Properties	
MD – Maximum Load (ppi)	14.6	MD – Maximum Load (ppi)	10.2
TD – Maximum Load (ppi)	18.7	TD – Maximum Load (ppi)	13.8
MD – Elongation @ Max Load (%)	19.3	MD – Elongation @ Max Load (%)	16.9
TD – Elongation @ Max Load (%)	27.7	TD – Elongation @ Max Load (%)	16.6

Light Penetration (ECTC Guidelines)		Resiliency (ASTM D 6524)	
Baseline Reading	125	Pre-loading thickness (mils)	1943
Reading with sample	10	Post-loading thickness (mils)	326
% Light Penetration	<8	% change	-83

Swell (ECTC)		Mass/Unit Area (ASTM D 6565)	
Dry thickness (mils)	1984	Mass/unit area (oz/sq. yd)	50.89
Thickness after soak (mils)	2098	Mass/unit area (g/sq. meter)	1725
% change	6		

Water Absorption (ASTM D 1117/ECTC)		Smolder Resistance (ECTC)	
Pre-soak Weight (grams)	69	Maximum Burn Distance (in)	.29
Post-Soak (grams)	152		
Weight change (grams)	82		
% Weight Change	119		

Sediment Control (ASTM D 5141)	
Test material:	Sand sieved thru No. 10 sieve
Filtering Efficiency (%)	40.8
Flow Rate (liter/minute)	150

VEHICLE TRACK-OUT CONTROL

PAVED SURFACE/PUBLIC RD.

3" TO 8" ROCK MEDIA

6" MINIMUM DEPTH

12'

30'

GEOTEXTILE FABRIC UNDERLINER
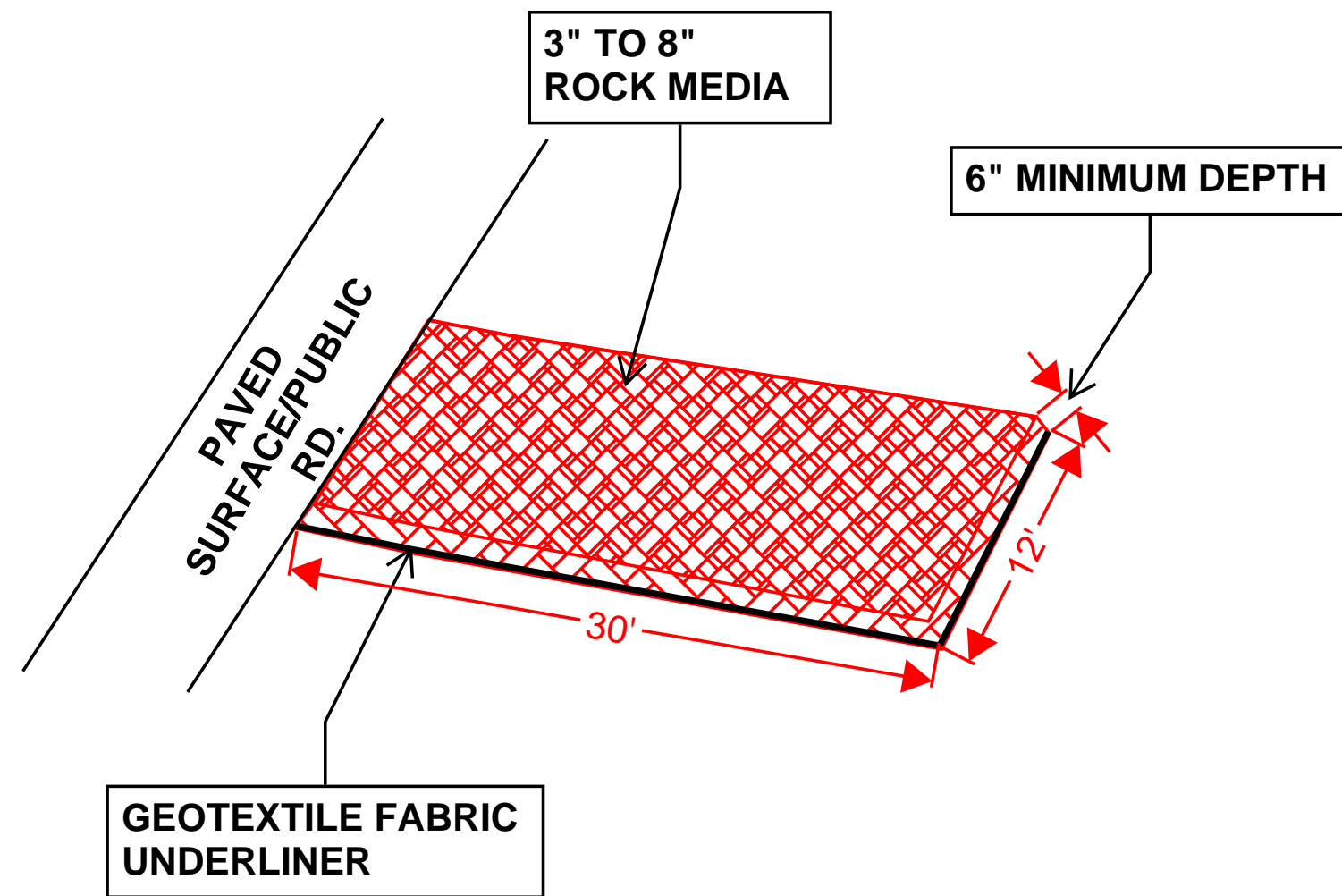
NOT TO SCALE

- DIMENSIONS NOTED CAN BE SITE RESTRICTIVE.

TYPICAL CONCRETE WASHOUT-BELOW GRADE

- Install appropriate signage to inform concrete equipment operators of the proper washout location.
- An appropriate stabilized entrance shall be installed where applicable. The length and width of the stabilized entrance may vary based on size and location of the washout.
- Washout facilities must be sized to contain washout water and solids.
- Typical dimensions are 10 feet long by 10 feet wide but may vary upon site limitations.
- Pit shall be delineated with Orange Filter Sock and A-Framed staked.
- The pit shall be lined with 10mil (minimum) polyethylene impermeable liner on the bottom and sides overlapping the top edges completing a leak-proof container.

Start Date-Finish Date (dates to be marked on site plan by operator)	Construction Activity, BMPs, and location
Initial Phase	**Pre-Site Grading** 1. Install perimeter BMPs (silt fence, erosion control logs, downstream inlet protection, etc.). 2. Construct VTC. 3. Set up construction trailer, construction barrier, and material storage areas 4. Disturbed areas where construction will cease for more than 7 days (per NMED Tier 1 requirements) will be stabilized with erosion controls 5. Install sanitary facilities and dumpster
Interim Phase	**Site Grading/ Building Construction** 1. Mass grade site 2. Construct utilities, infrastructure 3. Building, pavement construction 4. Implement stabilization procedures were work is complete or ceases for 7 days (per NMED Tier 1 requirements) or greater
Final Phase	**Final Stabilization** 1. Implement stabilization procedures were work is complete or ceases for 7 days (per NMED Tier 1 requirements) or greater 2. Prepare final seeding and landscaping 3. Monitor stabilized areas until final stabilization is reached 4. Remove temporary control BMPs and stabilize any areas disturbed by the removal

ESC Plan Standard Notes (2020-07-16)

1. All Erosion and Sediment Control (ESC) work on these plans, except as otherwise stated or provided hereon shall be permitted, constructed, inspected, and maintained in accordance with:
   a. The City Ordinance § 14-5-2-11, the ESC Ordinance,
   b. The EPA's 2017 Construction General Permit (CGP), and
   c. The City Of Albuquerque Construction BMP Manual.
2. All BMP's must be installed prior to beginning any earth moving activities except as specified hereon in the Phasing Plan. Construction of earthen BMP's such as sediment traps, sediment basins, and diversion berms shall be completed and inspected prior to any other construction or earthwork. Self-inspection is required after installation of the BMPs and prior to beginning construction.
3. Self-inspections - At a minimum a routine compliance self-inspection is required to review the project for compliance with the Construction General Permit once every 14 days and after any precipitation event of 1/4 inch or greater until the site construction has been completed and the site determined as stabilized by the city. Reports of these inspections shall be kept by the person or entity authorized to direct the construction activities on the site.
4. BMPs shall be inspected and maintained until all disturbed areas are stabilized in accordance with the Final Stabilization Criteria (CGP 2.2.14.b). Generally, all disturbed areas, other than structures, must have uniform perennial vegetation that provides 70 percent or more of the cover provided by native vegetation or seed the disturbed area and provide non-vegetative mulch that provides cover for at least three years without active maintenance. Final stabilization must be documented on self-inspection reports and approved by the City of Albuquerque prior to removal of BMPs and discontinuation of inspections.

GREEN globe ENVIRONMENTAL

OPERATOR: JAYNES CORPORATION

TOTAL SITE AREA: 2 ACRES
TOTAL DISTURBED AREA: 2 ACRES

RECEIVING WATERS: RIO GRANDE RIVER (TIJERAS ARROYO TO ALAMEDA BRIDGE)

REFER TO THE ESC BMP DETAILS (ESC-2) FOR INSTALLATION, INSPECTION AND MAINTENANCE REQUIREMENTS.
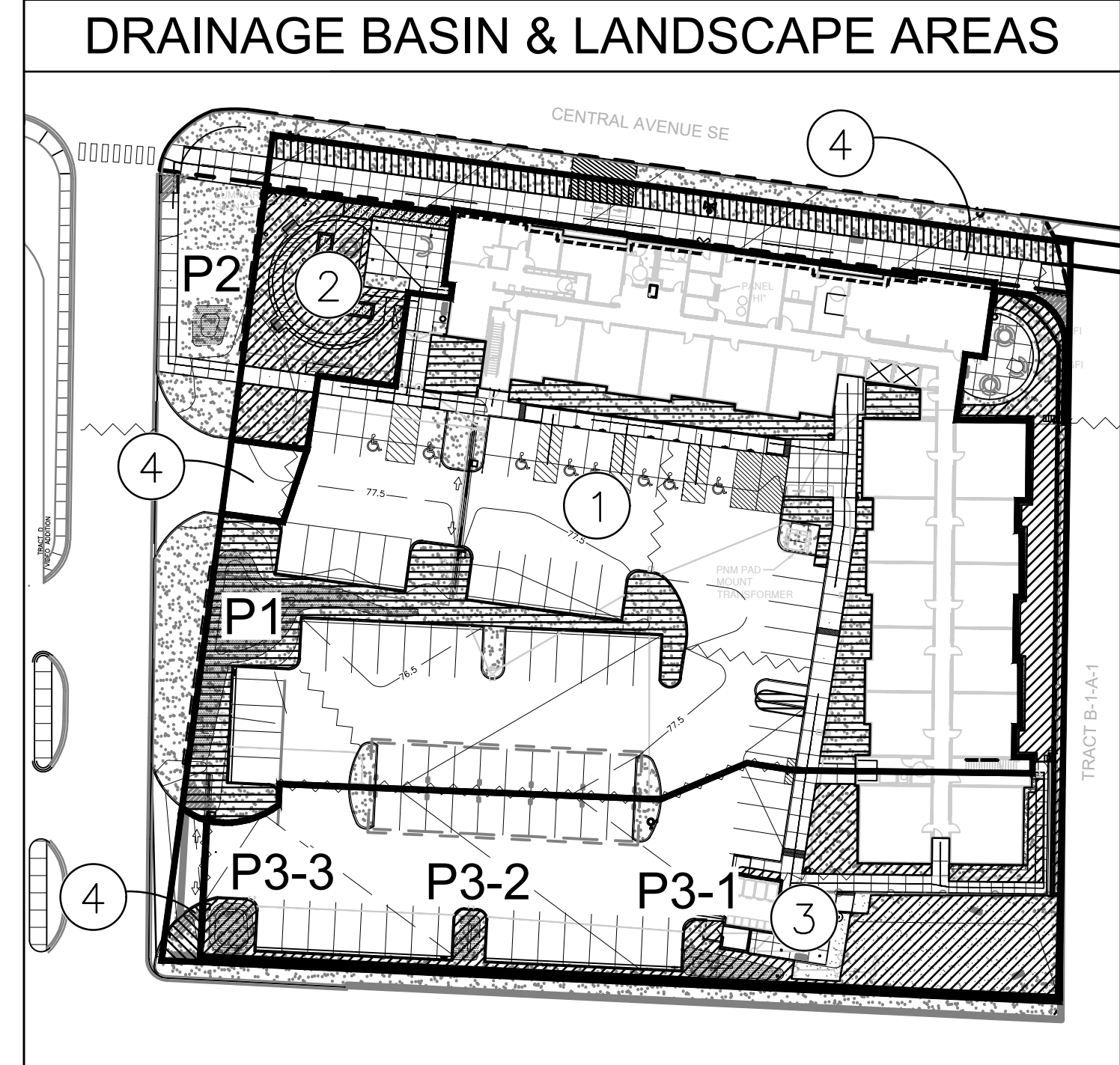
LUMINARIA SENIOR COMMUNITY

TEMPORARY EROSION AND SEDIMENT CONTROL PLAN

Drawn By:	
M. VALLEJOS, CPESC, CISEC	12/02/20

CERTIFIED PROFESSIONAL IN EROSION AND SEDIMENT CONTROL
CPESC®
MATHEW F. VALLEJOS
No. 9108

ESC-2

DRAINAGE BASIN & LANDSCAPE AREAS

CENTRAL AVENUE SE

P2, P1, P3-3, P3-2, P3-1

BASIN NO.	1	DESCRIPTION		Drains to SQ Pond P1
Area of basin flows =	47350	SF	=	1.09 Ac.

The following calculations are based on Treatment %'s as shown in table to the right

		LAND TREATMENT
Sub-basin Weighted Excess Precipitation:		A = 0%
Weighted E =	2.33 in.	B = 14.7%
Sub-basin Volume of Runoff:		C = 0%
V360 =	9180 CF	D = 85.3%
Sub-basin Peak Discharge Rate:		Stormwater Quality Volume
Qp =	4.6 cfs	875 CF

BASIN NO.	2	DESCRIPTION		Drains to SQ Pond P2
Area of basin flows =	4399	SF	=	0.10 Ac.

The following calculations are based on Treatment %'s as shown in table to the right = 23

		LAND TREATMENT
Sub-basin Weighted Excess Precipitation:		A = 0%
Weighted E =	1.05 in.	B = 89%
Sub-basin Volume of Runoff:		C = 0%
V360 =	385 CF	D = 11%
Sub-basin Peak Discharge Rate:		Stormwater Quality Volume
Qp =	0.3 cfs	10 CF

BASIN NO.	3	DESCRIPTION		Drains to SQ Pond P3
Area of basin flows =	23081	SF	=	0.53 Ac.

The following calculations are based on Treatment %'s as shown in table to the right

		LAND TREATMENT
Sub-basin Weighted Excess Precipitation:		A = 0%
Weighted E =	2.04 in.	B = 31.4%
Sub-basin Volume of Runoff:		C = 0%
V360 =	3924 CF	D = 68.6%
Sub-basin Peak Discharge Rate:		Stormwater Quality Volume
Qp =	2.0 cfs	343 CF

BASIN NO.	4	DESCRIPTION		Free Discharge - No SQ Pond
Area of basin flows =	6999	SF	=	0.16 Ac.

The following calculations are based on Treatment %'s as shown in table to the right

		LAND TREATMENT
Sub-basin Weighted Excess Precipitation:		A = 0%
Weighted E =	1.87 in.	B = 41.4%
Sub-basin Volume of Runoff:		C = 0%
V360 =	1089 CF	D = 59%
Sub-basin Peak Discharge Rate:		Stormwater Quality Volume
Qp =	0.6 cfs	89 CF

CALCULATIONS: Luminaria Senior Living : 23-Sep-2020

Based on City of Albuquerque DMP, Article 6-2 Hydrology dated June 26, 2020

100-YEAR, 6-HOUR CALCULATIONS

AREA OF SITE:	81829	SF	=	1.8785	ACRE

100-year, 6-hour

HISTORIC FLOWS:

	Treatment SF	%
Area A =	0	0%
Area B =	4091	5%
Area C =	45006	55%
Area D =	32732	40%
Total Area =	81829	100%

DEVELOPED FLOWS:

	Treatment SF	%
Area A =	0	0%
Area B =	16366	20%
Area C =	0	0%
Area D =	65463	80%
Total Area =	81829	100%

EXCESS PRECIP:

Precip. Zone 3

$E_A = 0.67$
$E_B = 0.86$
$E_C = 1.09$
$E_D = 2.58$

On-Site Weighted Excess Precipitation (100-Year, 6-Hour Storm)

$$\text{Weighted } E = \frac{E_A A_A + E_B A_B + E_C A_C + E_D A_D}{A_A + A_B + A_C + A_D}$$

Historic E =	1.67 in.	Developed E =	2.24 in.

On-Site Volume of Runoff: V360 = E*A / 12

Historic V360 =	11419 CF	Developed V360 =	15247 CF

On-Site Peak Discharge Rate: $Qp = Q_{pA}A_A + Q_{pB}A_B + Q_{pC}A_C + Q_{pD}A_D / 43,560$
For Precipitation Zone 3

$Q_{pA} =$	1.84	$Q_{pC} =$	3.17
$Q_{pB} =$	2.49	$Q_{pD} =$	4.49
Historic Qp =	6.9 CFS	Developed Qp =	7.7 CFS

STORMWATER QUALITY

STORMWATER QUALITY (SQ) CONTROL MEASURES ARE REQUIRED TO PROVIDE MANAGEMENT OF 'FIRST FLUSH'.

BECAUSE THIS PROPERTY WAS PREVIOUSLY FULLY DEVELOPED, THE REQUIRED FIRST FLUSH RETENTION VOLUME = 0.26" * TYPE 'D' AREA: 0.26/12 * (60,799 SF) = 1,317 CF. .

THE BASIN CALCULATIONS AT LEFT PROVIDE THE IMPERVIOUS AREA, REQUIRED STORMWATER QUALITY (SQ) VOLUME TO BE PONDED AS FOLLOWS:

BASIN 1   875 CF REQUIRED – DRAINS TO POND P1
   937 CF PROVIDED

BASIN 2   10 CF REQUIRED – DRAINS TO POND P2
          50 CF PROVIDED

BASIN 3   343 CF REQUIRED – DRAINS TO PONDS P3-1, P3-2, P3-3
          443 CF PROVIDED

BASIN 4   89 CF REQUIRED – REQUEST IN-LIEU-OF PAYMENT

A DRAINAGE COVENANT WILL BE REQUIRED FOR THE STORMWATER QUALITY FIRST FLUSH PONDS PRIOR TO CERTIFICATE OF OCCUPANCY APPROVAL.
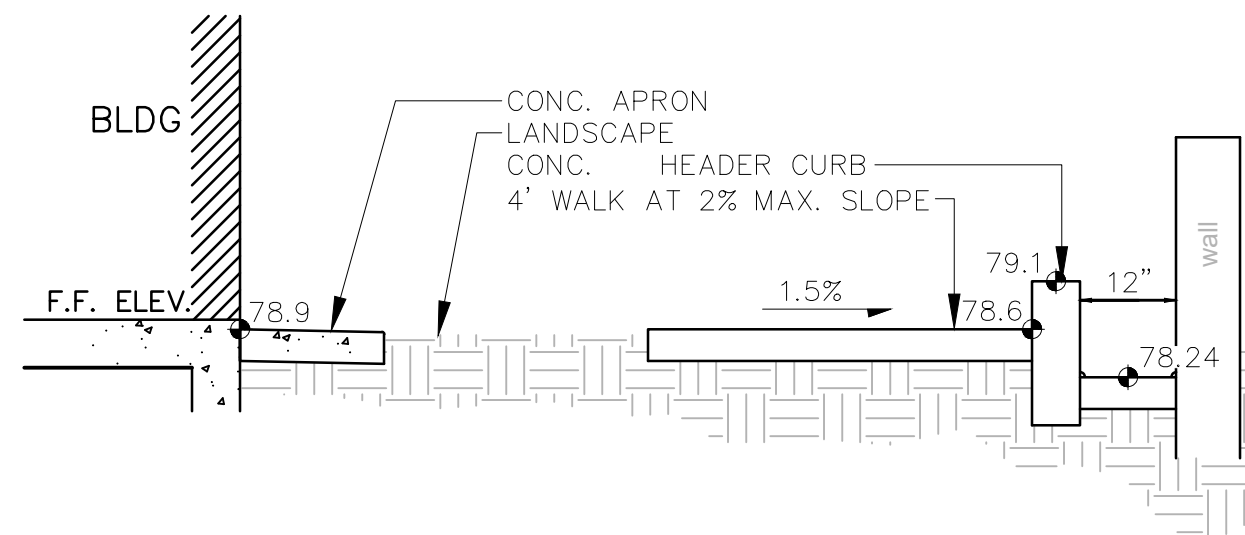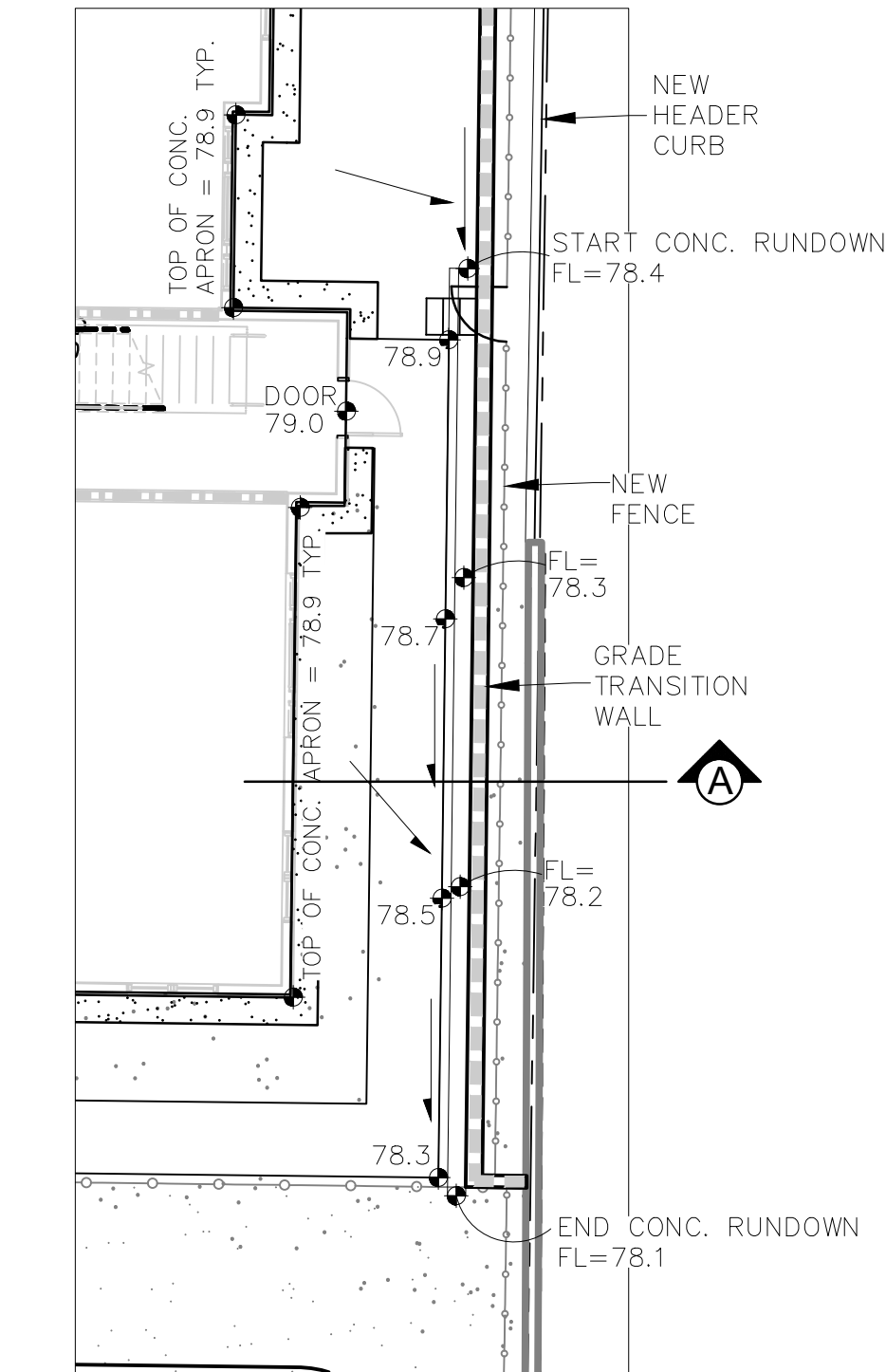
STORMWATER QUALITY P1

Contour	Area	Volume
5476.0	1393	
5475.0	480	937 CF

POND VOLUME = 937 CF

STORMWATER QUALITY P3-1

Contour	Area	Volume
5377.1	220	
5376.0	45	146 CF

POND VOLUME = 146 CF

STORMWATER QUALITY P2

Contour	Area	Volume
5476.5	160	
5476.0	40	50 CF

POND VOLUME = 50 CF

STORMWATER QUALITY P3-2

Contour	Area	Volume
5476.5	120	
5476.0	9	32 CF

POND VOLUME = 32 CF

STORMWATER QUALITY P3-3

Contour	Area	Volume
5476.0	240	
5474.5	100	255 CF

POND VOLUME = 255 CF
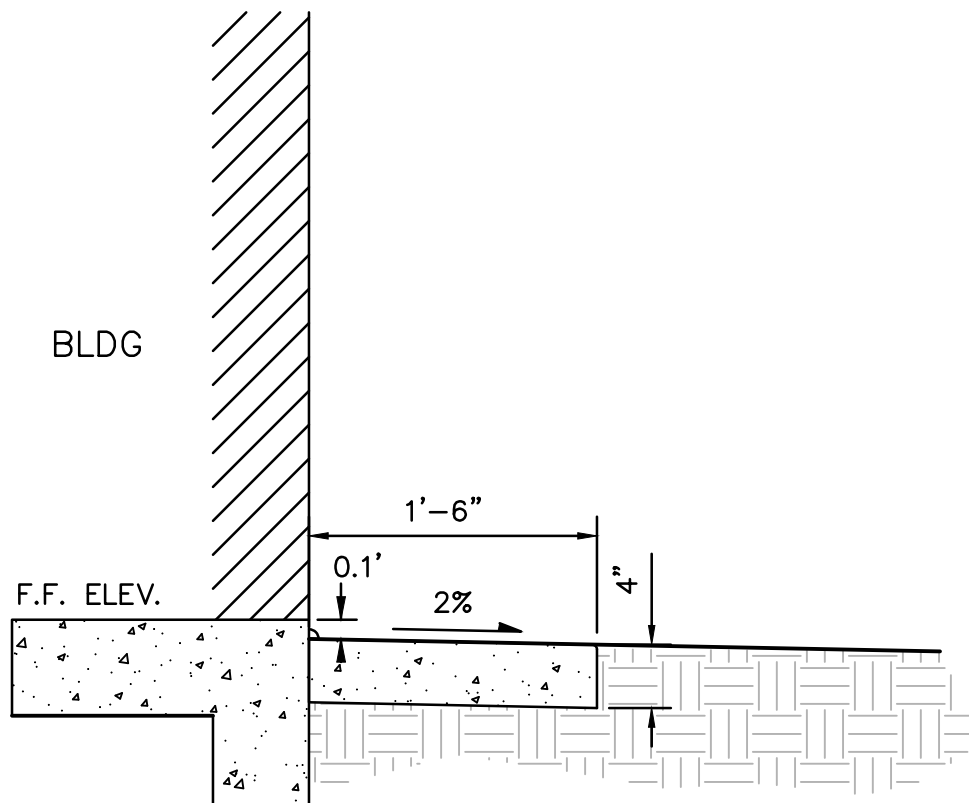
CONCRETE APRON AT BUILDING
SCALE: N.T.S.

BLDG
F.F. ELEV.
1'-6"
0.1'
2%

GENERAL NOTES

1. SEALED CONTRACTION / CONTROL JOINTS @ 6' MAX.
2. 1/2" SEALED EXPANSION JOINTS 36' O.C.
3. 3/8" RADII AT ALL EXPOSED EDGES.
4. PROVIDE ½" EXPANSION JOINT MATERIAL (FULL DEPTH) WITH SEALANT AT SURFACE BETWEEN BLDG. AND CONCRETE APRON.

FRED C. ARFMAN
NEW MEXICO
7321
LICENSED PROFESSIONAL ENGINEER

Engineer

CONCRETE RUNDOWN
SCALE: N.T.S.

TOP OF CONC. APRON = 78.9 TYP.
NEW HEADER CURB
START CONC. RUNDOWN FL=78.4
DOOR 79.0
78.9
NEW FENCE
FL=78.3
78.7
GRADE TRANSITION WALL
A
FL=78.2
78.5
78.3
END CONC. RUNDOWN FL=78.1

BLDG
F.F. ELEV. 78.9
CONC. APRON
LANDSCAPE
CONC. HEADER CURB
4' WALK AT 2% MAX. SLOPE
1.5%
79.1
78.6
12"
wall
78.24

1. SEALED CONTRACTION / CONTROL JOINTS @ 6' MAX.
2. 1/2" SEALED EXPANSION JOINTS 36' O.C.
3. 3/8" RADII AT ALL EXPOSED EDGES.
4. PROVIDE ½" EXPANSION JOINT MATERIAL (FULL DEPTH) WITH SEALANT ALONG WALL AND CURB..

LUMINARIA SENIOR COMMUNITY
10600 CENTRAL AVE SE
ALBUQUERQUE, NM 87123

100% CONSTRUCTION DOCUMENTS

REVISIONS

No	Date	
	10/23/2020	ADDENDUM 001

SHEET TITLE

Grading & Drainage Details & Calculations

SHEET NUMBER

CG-501