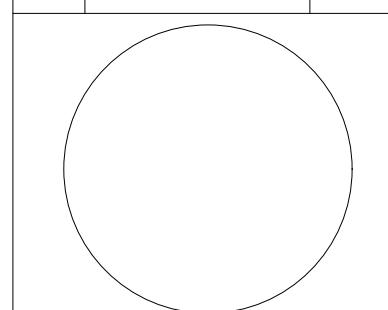


DRAWN BY: L. OTTEY		
REVIEWED BY: K. GAUTHIER		
REV.	DESCRIPTION	DATE
1	GC ADDENDUM ADDITION	05/09/23
2	2025 UPDATE	10.4.24



PPA#22-0012

COVER

SHEET
G10-1

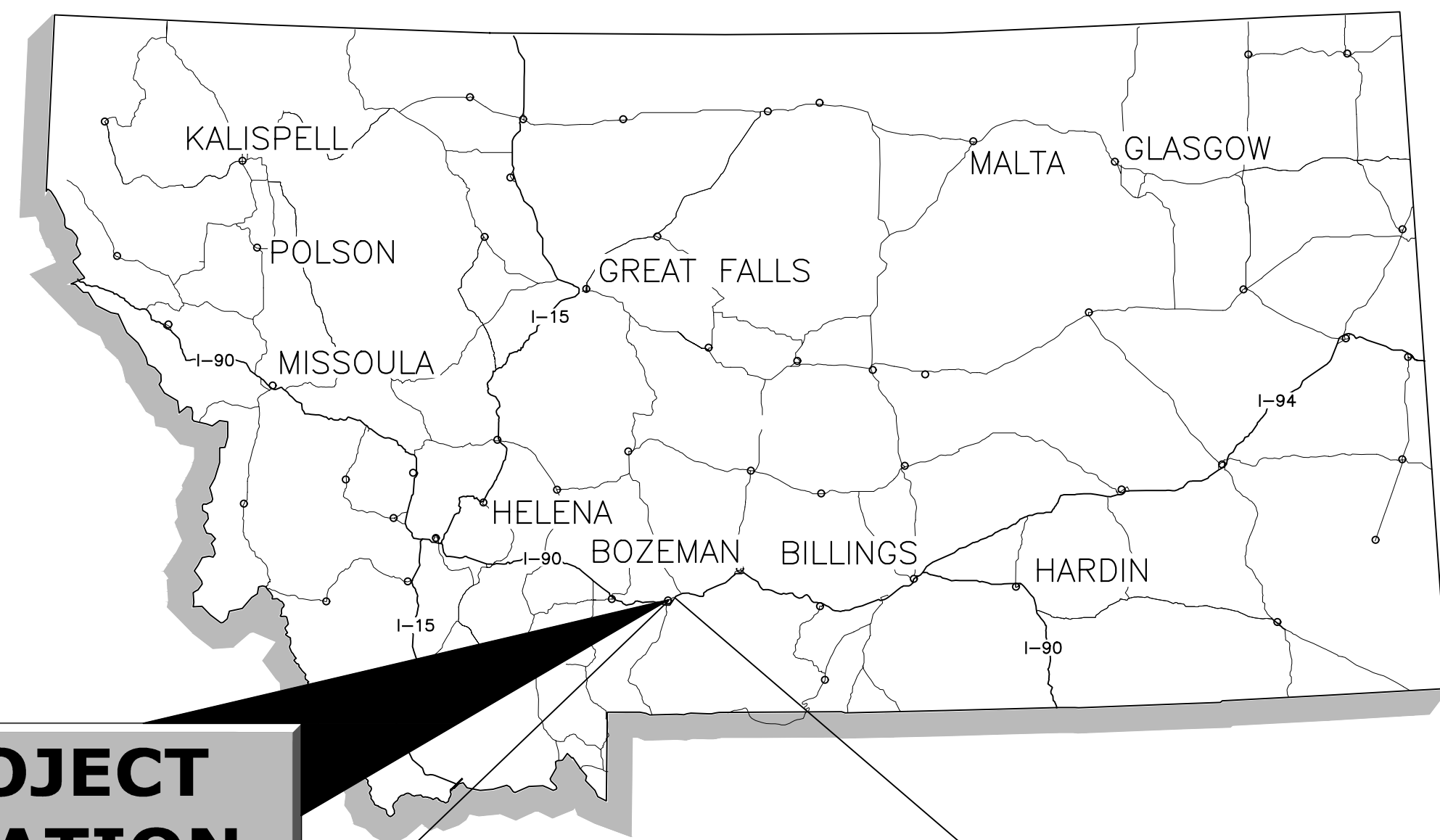
DATE
05-09-23

PPA# 22-0012

PARKING IMPROVEMENTS 2025

MONTANA STATE UNIVERSITY

BOZEMAN, MT



LOCATION MAP
NTS



VICINITY MAP
NTS

PREPARED FOR:

STATE OF MONTANA - MONTANA STATE UNIVERSITY
UNIVERSITY FACILITIES MANAGEMENT, PLANNING,
DESIGN & CONSTRUCTION
PLEW BUILDING 6TH & GRANT
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FAX: 406-994-5665



PREPARED BY:

DJ&A
220 WEST LAMME STREET, SUITE 1D
BOZEMAN, MT 59715
406-721-4320



SHEET INDEX:

Sheet Number	Sheet Title
GI0-1	COVER
GI0-2	NOTES, LEGEND, & ABBREVIATIONS
GI0-3	KEY MAP & SURVEY CONTROL
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CP1-1	GRANT CHAMBERLAIN - SITE PLAN
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CU1-1	GRANT CHAMBERLAIN - STORM WATER
C5-1	DETAILS 1
C5-2	DETAILS 2
C5-3	DETAILS 3
C5-4	DETAILS 4
C5-5	DETAILS 5

DELETE C5-5. NO
LIGHT POLE
REMOVAL OR
REINSTALLATION
NECESSARY

GENERAL NOTES

1. CONDUIT WILL BE INSTALLED IN A JOINT UTILITY TRENCH WHEN FEASIBLE. TRENCH TO BE EXCAVATED BY THE CONTRACTOR AND SHALL CONFORM TO NORTHWESTERN ENERGY (NWE) AND MSU SPECIFICATIONS. THE WORKING CONTRACTOR WILL BE RESPONSIBLE FOR BACKFILLING & COMPACTING THE TRENCH.
2. UTILITIES: UTILITY LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE. NOT ALL UTILITIES ARE SHOWN. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY LOCATIONS OF ALL UTILITIES THAT MAY BE IMPACTED BY THIS PROJECT.
3. WHERE CONDITIONS ENCOUNTERED WHICH APPEAR DIFFERENT FROM THOSE INDICATED ON THE PLANS OR IN THE SPECIFICATIONS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO THE PERFORMANCE OF WORK.
4. SPECIFICATIONS: ALL WORK SHALL CONFORM TO THE 7TH EDITION OF THE MONTANA PUBLIC WORKS STANDARD SPECIFICATIONS (MPWSS) & MODIFICATIONS THERETO. IN CASE OF A CONFLICT BETWEEN REGULATORY OR STANDARD SPECIFICATIONS, THE MORE STRINGENT REQUIREMENT WILL PREVAIL.
5. PERMITS & FEES: ALL PERMITS AND FEES REQUIRED FOR THIS PROJECT SHALL BE OBTAINED & PURCHASED BY THE CONTRACTOR. *PERMITS REQUIRED:* MONTANA DEQ SWPPP. OTHER PERMITS MAY BE REQUIRED AND SHALL BE DISCUSSED WITH THE ENGINEER.
6. EROSION CONTROL PLAN & STATE OF MONTANA SWPPP: THE CONTRACTOR WILL BE RESPONSIBLE FOR CREATING AND FILING A STATE OF MONTANA NOTICE OF INTENT (NOI) FORM AND STORM WATER POLLUTION PREVENTION PLAN (SWPPP) UNDER THE MONTANA POLLUTANT DISCHARGE ELIMINATION SYSTEM (MPDES) WITH THE MONTANA WATER QUALITY DIVISION FOR STORM WATER ASSOCIATED WITH CONSTRUCTION ACTIVITIES. ALL CONTRACTORS, INCLUDING THOSE SUBCONTRACTED BY THE GENERAL CONTRACTOR, SHALL COMPLY WITH THE APPROVED SWPPP.
7. DISPOSAL: ALL MATERIALS DESIGNATED FOR REMOVAL BECOME THE PROPERTY OF THE CONTRACTOR UPON REMOVAL AND ARE TO BE DISPOSED OF IN AN ENVIRONMENTALLY SAFE MANNER IN ACCORDANCE WITH ALL LOCAL, STATE & FEDERAL REQUIREMENTS.
8. EXISTING CONDITIONS AT THE SITE ARE THE RESPONSIBILITY OF THE CONTRACTOR & MUST BE FIELD VERIFIED BY THE CONTRACTOR.
9. NO STORAGE OF CONSTRUCTION MATERIALS AND/OR EQUIPMENT HAS BEEN DESIGNATED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THEIR OWN MATERIAL & EQUIPMENT STORAGE AREA.
10. THE CONTRACTOR SHALL PROTECT ADJACENT SITES FROM DAMAGE DURING CONSTRUCTION.
11. LOTS & STREET CLOSURES SHALL BE COORDINATED WITH & APPROVED BY MSU PARKING, MSU PLANNING, DESIGN, & CONSTRUCTION (PDC), & MSU FAMILY GRADUATE HOUSING STAFF 72 HOURS PRIOR TO CLOSURE.
12. ALL AREAS DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO EXISTING CONDITION OR BETTER AT THE CONTRACTOR'S EXPENSE.
13. THE CONTRACTOR SHALL MAINTAIN & PROVIDE A CLEAN & CLEARLY REDLINED SET OF AS-BUILT DRAWINGS TO THE ENGINEER PRIOR TO FINAL ACCEPTANCE.
14. CONTRACTOR SHALL REMOVE & DISPOSE OF ALL ABANDONED FACILITIES THAT ARE A RESULT OF THESE IMPROVEMENTS AS DESCRIBED HERE & IN SPECIFICATIONS.
15. REFER TO THE FOLLOWING DEFINITIONS FOR THE PLANS & SPECIFICATIONS:
 - 15.1. REMOVE: DETACH ITEMS FROM EXISTING CONSTRUCTION & LEGALLY DISPOSE OF THEM OFF-SITE UNLESS INDICATED TO BE REMOVED & SALVAGED OR REMOVED & REINSTALLED.
 - 15.2. REMOVE & SALVAGE: CAREFULLY DETACH FROM EXISTING CONSTRUCTION, IN A MANNER TO PREVENT DAMAGE, & DELIVER TO MSU.
 - 15.3. REMOVE & REINSTALL: DETACH ITEMS FROM EXISTING CONSTRUCTION, PREPARE FOR REUSE, & REINSTALL WHERE INDICATED.

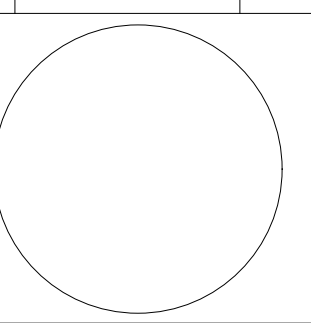
ABBREVIATIONS

AASHTO	AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION
ADA	AMERICAN DISABILITY ACT
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
AVE.	AVENUE
cf	CUBIC FEET
CL	CENTERLINE
CP	CONTROL POINT
DESC.	DESCRIPTION
EG	EXISTING GRADE
EL/ELEV	ELEVATION
EOA	EDGE OF ASPHALT
E	EXISTING
FETS	FLARED END TREATMENT SECTIONS
FG	FINISH GRADE
FH	FAMILY HOUSING
FL	FLOW LINE
FT	FEET/FOOT
HDPE	HIGH DENSITY POLYETHYLENE
INV	INVERT
LF	LINEAR FOOT
MAX	MAXIMUM
MIN	MINIMUM
MPDES	MONTANA POLLUTANT DISCHARGE ELIMINATION SYSTEM
MPWSS	MONTANA PUBLIC WORKS STANDARD SPECIFICATIONS
MSU	MONTANA STATE UNIVERSITY
MT	MONTANA
NAD	NORTH AMERICAN DATUM
NAV D	NORTH AMERICAN VERTICAL DATUM
NE	NORTHEAST
NTS	NOT TO SCALE
NWE	NORTHWESTERN ENERGY
PED	PEDESTRIAN
PPA	PHYSICAL PLANT ACCOUNT
R	RADIUS
ROW	RIGHT-OF-WAY
RPC	RED PLASTIC CAP
S =	SLOPE
SF	SQUARE FEET (FOOT)
SD	STORM DRAIN
SPC	STATE PLANE COORDINATE
SW	STORM WATER
SWPPP	STORM WATER POLLUTION PREVENTION PLAN
TC	TIME TO CONCENTRATION
TYP.	TYPICAL
TBC	TOP BACK OF CURB

LEGEND

	EXISTING ELECTRIC PEDESTAL OR JUNCTION BOX
	EXISTING OVERHEAD UTILITY POLE
	EXISTING LIGHT POLE
	EXISTING TELEPHONE PEDESTAL
	EXISTING MANHOLE COVERS
	EXISTING WATER HYDRANT
	EXISTING WATER VALVE
	EXISTING STORM SUMP OR CATCH BASIN
	EXISTING VEHICLE HEATER BLOCK PLUGINS
	EXISTING TREE
	EXISTING CURB STOPS
	EXISTING MAILBOX LOCATION
	EXISTING PLAYGROUND
	EXISTING PARK BENCH
	EXISTING STORM ROOF DROP INLET/OUTLET - POINT
	EXISTING BIKE RACK
	EXISTING WATER WELL OR PUMPING STATION
	EXISTING IRRIGATION WATER VALVE
	EXISTING DUMPSTER LOCATION
	EXISTING - OVERHEAD POWER
	EXISTING - CONCRETE HATCH & CONCRETE EDGE
	EXISTING - ASPHALT HATCH & ASPHALT EDGE
	PROPOSED - CONCRETE HATCH & CONCRETE EDGE
	PROPOSED - ASPHALT HATCH & ASPHALT EDGE

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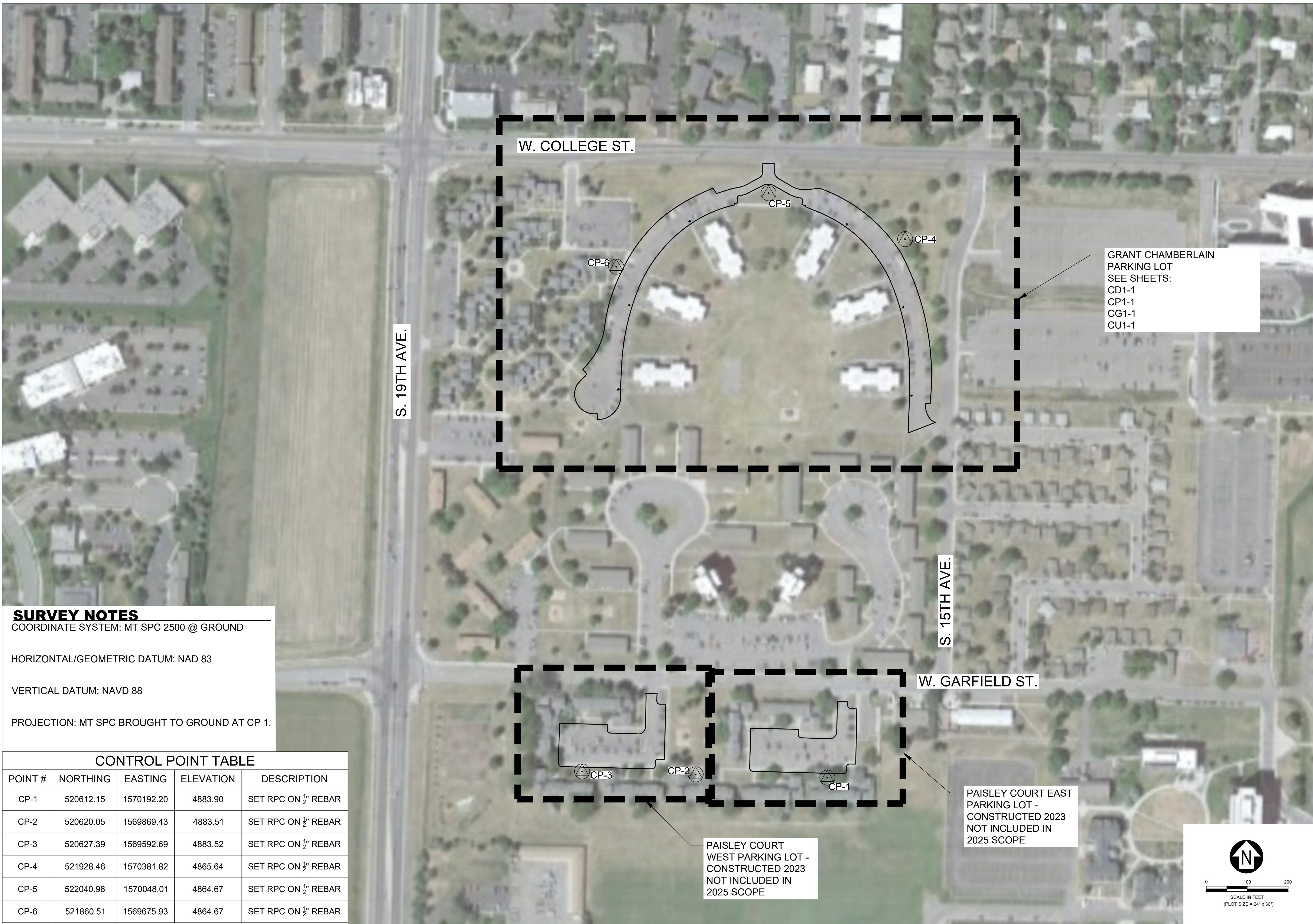


PPA#22-0012

NOTES,
LEGEND, &
ABBREVIATIONS

SHEET
G10-2

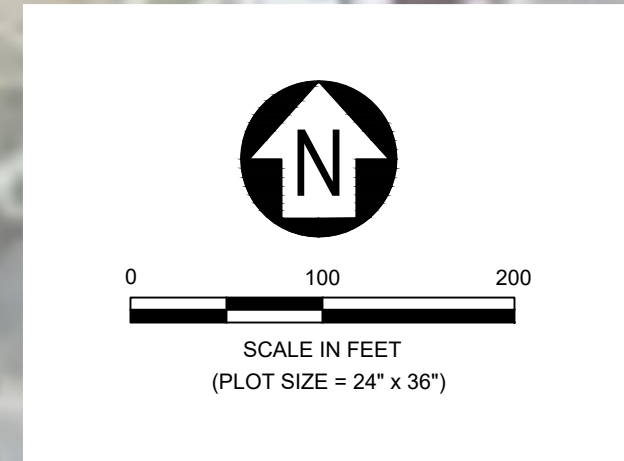
DATE
05-09-23



SURVEY NOTES
 COORDINATE SYSTEM: MT SPC 2500 @ GROUND
 HORIZONTAL/GEOMETRIC DATUM: NAD 83
 VERTICAL DATUM: NAVD 88
 PROJECTION: MT SPC BROUGHT TO GROUND AT CP 1.

CONTROL POINT TABLE				
POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
CP-1	520612.15	1570192.20	4883.90	SET RPC ON ½" REBAR
CP-2	520620.05	1569869.43	4883.51	SET RPC ON ½" REBAR
CP-3	520627.39	1569592.69	4883.52	SET RPC ON ½" REBAR
CP-4	521928.46	1570381.82	4865.64	SET RPC ON ½" REBAR
CP-5	522040.98	1570048.01	4864.67	SET RPC ON ½" REBAR
CP-6	521860.51	1569675.93	4864.67	SET RPC ON ½" REBAR

MDT, 2014-2015, 2016-2017, 2018-2019, 2020-2021, 2022-2023
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 PHOTOGRAPHY: © 2023 by Montana State University



KEY MAP & SURVEY CONTROL






SHEET
G10-3

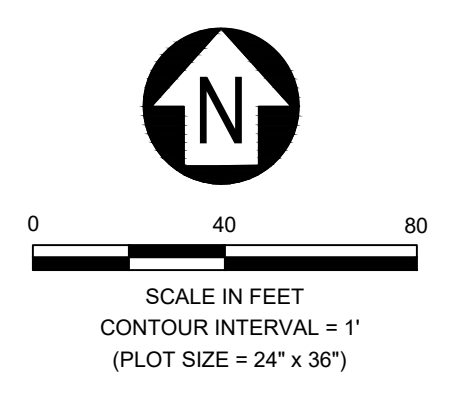
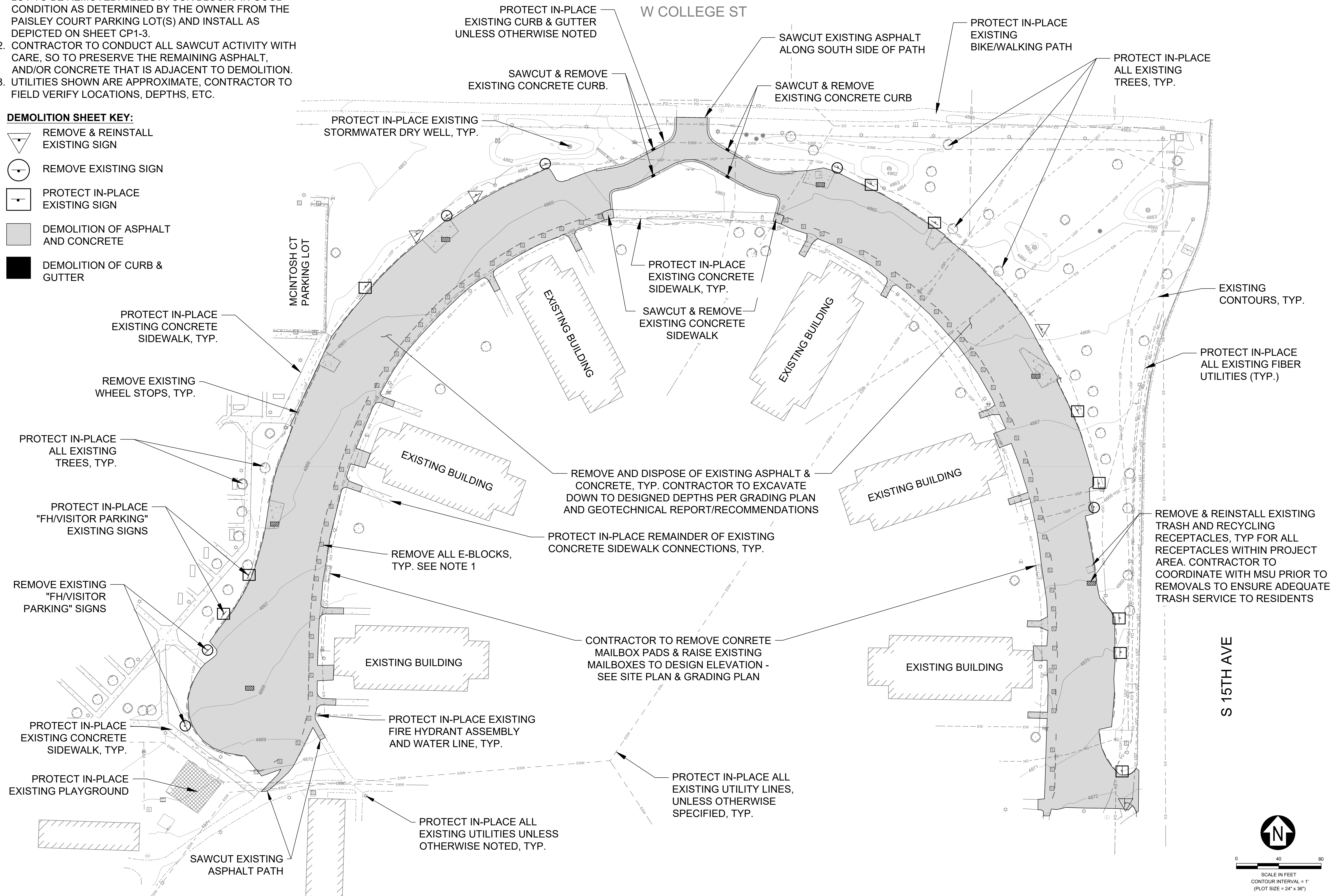
DATE
05-09-23

DEMOLITION NOTES:

1. ALL E-BLOCKS IN THE GRANT CHAMBERLAIN PARKING LOT TO BE REMOVED. SELECT FOUR BLOCKS IN GOOD CONDITION AS DETERMINED BY THE OWNER FROM THE PAISLEY COURT PARKING LOT(S) AND INSTALL AS DEPICTED ON SHEET CP1-3.
2. CONTRACTOR TO CONDUCT ALL SAWCUT ACTIVITY WITH CARE, SO TO PRESERVE THE REMAINING ASPHALT, AND/OR CONCRETE THAT IS ADJACENT TO DEMOLITION.
3. UTILITIES SHOWN ARE APPROXIMATE, CONTRACTOR TO FIELD VERIFY LOCATIONS, DEPTHS, ETC.

DEMOLITION SHEET KEY:

-  REMOVE & REINSTALL EXISTING SIGN
-  REMOVE EXISTING SIGN
-  PROTECT IN-PLACE EXISTING SIGN
-  DEMOLITION OF ASPHALT AND CONCRETE
-  DEMOLITION OF CURB & GUTTER



SITE PLAN NOTES:

1. CONDUITS WILL BE INSTALLED AT 24" BURY DEPTH TO TOP OF CONDUIT BUNDLE. LABEL CONDUITS WITH LOCATE TAPE. CAP, MARK AND SWEEP 3' OFF THE GROUND. LOCATED AT A 2' SETBACK FROM THE CURB. SEE DETAIL C/C5-3.
2. PROPOSED STANDARD PARKING STALLS: 247. PROPOSED ADA PARKING STALLS: 6.
3. ALL INTERIOR PARKING STALLS ARE MEASURED 16' FROM THE FACE OF CURB TO THE END OF STALL. ALL EXTERIOR PARKING STALLS ARE MEASURED 16' FROM EDGE OF DRIVE AISLE UNLESS OTHERWISE MARKED. SOME MINOR VARIANCES OF LENGTH MAY EXIST FOR EXTERIOR STALLS.
4. WIDTH OF PARKING STALLS MEASURED AT NARROWEST POINT (ALONG FACE OF CURB FOR INTERIOR PARKING STALLS AND ALONG EDGE OF DRIVE AISLE FOR EXTERIOR PARKING STALLS).
5. CONTRACTOR TO EXERCISE CAR IN MINIMIZING DISTURBANCE TO LANDSCAPING BEYOND EDGE OF PROPOSED IMPROVEMENTS/PROJECT EXTENTS. MSU TO PROVIDE PATCHING AND REPAIR OF LANDSCAPING, GRASS AREA(S), AND IRRIGATION. CONTRACTOR TO COORDINATE WITH MSU PRIOR TO DISTURBING ANY LANDSCAPED AREAS.

INSTALL E-BLOCK & RECONNECT TO EXISTING ELECTRICAL SERVICES. SEE DETAIL B/C5-4

INSTALL 75 LF OF (3) 4" CONDUITS. SEE NOTE 1

INSTALL DRAINAGE STRUCTURE. SEE DETAIL A/C5-3

INSTALL CATCH CURB & GUTTER. SEE DETAIL A/C5-1

INSTALL 1' CONCRETE SIDEWALK AND TIE EXISTING SIDEWALK TO PROPOSED TBC.

16' X 9' PARKING STALLS, TYP.

INSTALL CONCRETE PAD. SEE DETAIL G/C5-1

INSTALL 80 LF OF (3) 4" CONDUITS. SEE NOTE 1

INSTALL CATCH CURB & GUTTER BEGINNING AT CORNER. SEE DETAIL A/C5-1

TIE TO EXISTING CONCRETE

INSTALL 6" CONCRETE SIDEWALK. SEE DETAIL A/C5-1. BOLT/FASTEN MAILBOX STRUCTURES TO 6" CONCRETE. SLAB. RAISE MAILBOX SLAB & MAILBOXES TO GRADE TO MATCH BACK OF SIDEWALK. SEE GRADING PLAN.

INSTALL 1 ADA ACCESSIBLE VAN STALL. SEE DETAIL D/C5-2

INSTALL E-BLOCK & RECONNECT TO EXISTING ELECTRICAL SERVICES. SEE DETAIL B/C5-4

INSTALL 6" CONCRETE SIDEWALK. SEE DETAIL A/C5-1. BOLT/FASTEN MAILBOX STRUCTURES TO 6" CONCRETE. SLAB. RAISE MAILBOX SLAB & MAILBOXES TO GRADE TO MATCH BACK OF SIDEWALK. SEE GRADING PLAN.

INSTALL 1 ADA ACCESSIBLE VAN STALL. SEE DETAIL D/C5-2

INSTALL "SERVICE VEHICLE PARKING ONLY" SIGN. CONTRACTOR TO VERIFY LOCATION WITH OWNER PRIOR TO INSTALLATION.

INSTALL ADA PARKING SIGN. SEE DETAIL D/C5-4

INSTALL 1 ADA ACCESSIBLE VAN STALL. SEE DETAIL D/C5-2

INSTALL E-BLOCK & RECONNECT TO EXISTING ELECTRICAL SERVICES. SEE DETAIL B/C5-4

INSTALL 6" CONCRETE SIDEWALK. SEE DETAIL A/C5-1. BOLT/FASTEN MAILBOX STRUCTURES TO 6" CONCRETE. SLAB. RAISE MAILBOX SLAB & MAILBOXES TO GRADE TO MATCH BACK OF SIDEWALK. SEE GRADING PLAN.

INSTALL 1 ADA ACCESSIBLE VAN STALL. SEE DETAIL D/C5-2

INSTALL NEW ASPHALT AND TIE TO EXISTING AT CLEAN SAWCUT LINE. SEE DETAIL D/C5-1

INSTALL CONCRETE PAD. SEE DETAIL G/C5-1

INSTALL 35 LF OF (3) 4" CONDUITS. SEE NOTE 1

REPLACE CURB AND GUTTER PER DETAIL A/C5-1

POTENTIAL LOCATION OF IRRIGATION VALVE BOX (COORDINATE WITH MSU)

INSTALL SIGN, "NO PARKING." SEE DETAIL D/C5-4

INSTALL CONCRETE PAD. SEE DETAIL G/C5-1

TIE TO EXISTING CURB & GUTTER

PEDESTRIAN ACCESS RAMP

TIE PROPOSED CONCRETE SIDEWALK TO EXISTING AT NEAREST JOINT BEYOND EXTENTS SHOWN (TYP.)

INSTALL "SERVICE VEHICLE PARKING ONLY" SIGN. CONTRACTOR TO VERIFY LOCATION WITH OWNER PRIOR TO INSTALLATION

INSTALL SIDEWALK TRENCH DRAIN. SEE DETAIL D/C5-3

INSTALL ADA PARKING SIGN. SEE DETAIL D/C5-4

INSTALL 1 ADA ACCESSIBLE VAN STALL. SEE DETAIL D/C5-2

INSTALL CONCRETE SIDEWALK AND CURB & GUTTER. WIDTHS VARY SLIGHTLY. SEE DETAIL A/C5-1

PEDESTRIAN ACCESS RAMP

INSTALL "SERVICE VEHICLE PARKING ONLY" SIGN. CONTRACTOR TO VERIFY LOCATION WITH OWNER PRIOR TO INSTALLATION.

INSTALL SIDEWALK TRENCH DRAIN. SEE DETAIL D/C5-3

INSTALL ADA PARKING SIGN. SEE DETAIL D/C5-4

INSTALL 1 ADA ACCESSIBLE VAN STALL. SEE DETAIL D/C5-2

INSTALL E-BLOCK & RECONNECT TO EXISTING ELECTRICAL SERVICES. SEE DETAIL B/C5-4

INSTALL 6" CONCRETE SIDEWALK. SEE DETAIL A/C5-1. BOLT/FASTEN MAILBOX STRUCTURES TO 6" CONCRETE. SLAB. RAISE MAILBOX SLAB & MAILBOXES TO GRADE TO MATCH BACK OF SIDEWALK. SEE GRADING PLAN.

SPILL CURB ALONG ENTIRE INTERIOR WEST SIDE. SEE DETAIL A/C5-1

PEDESTRIAN ACCESS RAMP

INSTALL "SERVICE VEHICLE PARKING ONLY" SIGN. CONTRACTOR TO VERIFY LOCATION WITH OWNER PRIOR TO INSTALLATION

INSTALL SIDEWALK TRENCH DRAIN. SEE DETAIL D/C5-3

INSTALL ADA PARKING SIGN. MSU TO FURNISH (TYP.), CONTRACTOR TO INSTALL. SEE DETAIL D/C5-4

INSTALL 1 ADA ACCESSIBLE VAN STALL. SEE DETAIL D/C5-2

INSTALL NEW ASPHALT AND TIE TO EXISTING AT CLEAN SAWCUT LINE. SEE DETAIL D/C5-1

INSTALL CONCRETE PAD. SEE DETAIL G/C5-1

W COLLEGE ST

TIE ASPHALT TO CLEAN SAWCUT LINE. APPLY TACKIFIER TO JOINT

INSTALL 35 LF OF (3) 4" CONDUITS. SEE NOTE 1

REPLACE CURB AND GUTTER PER DETAIL A/C5-1

INSTALL CONCRETE PAD. SEE DETAIL G/C5-1

INSTALL SIGN, "NO PARKING." MSU TO FURNISH, CONTRACTOR TO INSTALL (TYP.) SEE DETAIL D/C5-4

SNOW STORAGE. NO PARKING (TYP.)

INSTALL "SERVICE VEHICLE PARKING ONLY" SIGN. CONTRACTOR TO VERIFY LOCATION WITH OWNER PRIOR TO INSTALLATION

INSTALL SIDEWALK TRENCH DRAIN. SEE DETAIL D/C5-3

INSTALL ADA PARKING SIGN. SEE DETAIL D/C5-4

INSTALL 1 ADA ACCESSIBLE VAN STALL. SEE DETAIL D/C5-2

PEDESTRIAN ACCESS RAMP

INSTALL "SERVICE VEHICLE PARKING ONLY" SIGN. CONTRACTOR TO VERIFY LOCATION WITH OWNER PRIOR TO INSTALLATION

INSTALL SIDEWALK TRENCH DRAIN. SEE DETAIL D/C5-3

INSTALL ADA PARKING SIGN. SEE DETAIL D/C5-4

INSTALL 1 ADA ACCESSIBLE VAN STALL. SEE DETAIL D/C5-2

INSTALL E-BLOCK & RECONNECT TO EXISTING ELECTRICAL SERVICES. SEE DETAIL B/C5-4

INSTALL 6" CONCRETE SIDEWALK. SEE DETAIL A/C5-1. BOLT/FASTEN MAILBOX STRUCTURES TO 6" CONCRETE. SLAB. RAISE MAILBOX SLAB & MAILBOXES TO GRADE TO MATCH BACK OF SIDEWALK. SEE GRADING PLAN.

INSTALL 1 ADA ACCESSIBLE VAN STALL. SEE DETAIL D/C5-2

INSTALL E-BLOCK & RECONNECT TO EXISTING ELECTRICAL SERVICES. LOCATION OF EXISTING ELECTRICAL APPROXIMATE. CONTRACTOR TO VERIFY. SEE DETAIL B/C5-4

INSTALL CONCRETE PAD. SEE DETAIL G/C5-1

INSTALL 70 LF OF (3) 4" CONDUITS. SEE NOTE 1

TIE ASPHALT TO EXISTING CURB WALL.

TIE ASPHALT TO CLEAN SAWCUT LINE. APPLY TACKIFIER TO JOINT

INSTALL 70 LF OF (3) 4" CONDUITS. SEE NOTE 1

INSTALL CONCRETE PAD. SEE DETAIL G/C5-1

INSTALL 70 LF OF (3) 4" CONDUITS. SEE NOTE 1

TIE ASPHALT TO EXISTING CURB WALL.

TIE ASPHALT TO CLEAN SAWCUT LINE. APPLY TACKIFIER TO JOINT

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INSTALL CONCRETE PAD. SEE DETAIL G/C5-1

INSTALL 70 LF OF (3) 4" CONDUITS. SEE NOTE 1

TIE ASPHALT TO EXISTING CURB WALL.

TIE ASPHALT TO CLEAN SAWCUT LINE. APPLY TACKIFIER TO JOINT

SUB-BASE AND BASE COURSE OF ASPHALT TO EXTEND A MIN. 4" BEYOND EDGE OF ASPHALT (TYP.)

INSTALL NEW ASPHALT PAVEMENT SECTION PER DETAIL E/C5-1 OR F/C5-1 & GEOTECHNICAL RECOMMENDATIONS

INSTALL 75 LF OF (3) 4" CONDUITS. SEE NOTE 1

INSTALL E-BLOCK & RECONNECT TO EXISTING ELECTRICAL SERVICES. SEE DETAIL B/C5-4

INSTALL SIGN, "NO PARKING." SEE DETAIL D/C5-4

INSTALL CONCRETE PAD. SEE DETAIL G/C5-1

16' X 9' PARKING STALLS, TYP.

INSTALL E-BLOCK & RECONNECT TO EXISTING ELECTRICAL SERVICES. LOCATION OF EXISTING ELECTRICAL APPROXIMATE. CONTRACTOR TO VERIFY. SEE DETAIL B/C5-4

INSTALL CONCRETE PAD. SEE DETAIL G/C5-1

INSTALL 70 LF OF (3) 4" CONDUITS. SEE NOTE 1

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TIE ASPHALT TO CLEAN SAWCUT LINE. APPLY TACKIFIER TO JOINT

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TIE ASPHALT TO CLEAN SAWCUT LINE. APPLY TACKIFIER TO JOINT

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INSTALL CONCRETE PAD. SEE DETAIL G/C5-1

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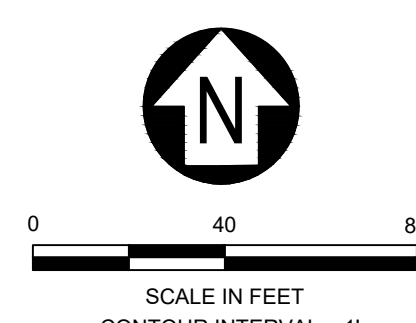
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INSTALL CONCRETE PAD. SEE DETAIL G/C5-1

INSTALL 70 LF OF (3) 4" CONDUITS. SEE NOTE 1

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TIE ASPHALT TO CLEAN SAWCUT LINE. APPLY TACKIFIER TO JOINT



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PARKING IMPROVEMENTS

2025



DRAWN BY: L. OTTEY
REVIEWED BY: K. GAUTHIER

REV.	DESCRIPTION	DATE

PPA#22-0012

GRANT CHAMBERLAIN - SITE PLAN

SHEET
CP1-1

DATE
05-09-23

GRADING AND DRAINAGE GENERAL NOTE:

EXACT TIE-IN ELEVATIONS MAY VARY BASED ON NEAREST ADJACENT SURFACE FOR ALL CONCRETE SIDEWALK (AND ASPHALT PAVEMENT) TIE-INS.

W COLLEGE ST

CONTRACTOR TO GRADE DRAINAGE SWALE PER CONTOURS. CONTRACTOR TO ENSURE MIN. BURY DEPTH OF UGP (MIN. 18") AND LOWER OR RELOCATE, IF REQUIRED.

CONTRACTOR TO INSTALL & MAINTAIN INLET PROTECTION PER SWPPP (TYP. OF ALL STORMWATER FACILITIES)

CONTRACTOR TO INSTALL & MAINTAIN INLET PROTECTION PER SWPPP (TYP. OF ALL STORMWATER FACILITIES)

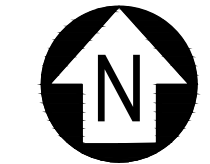
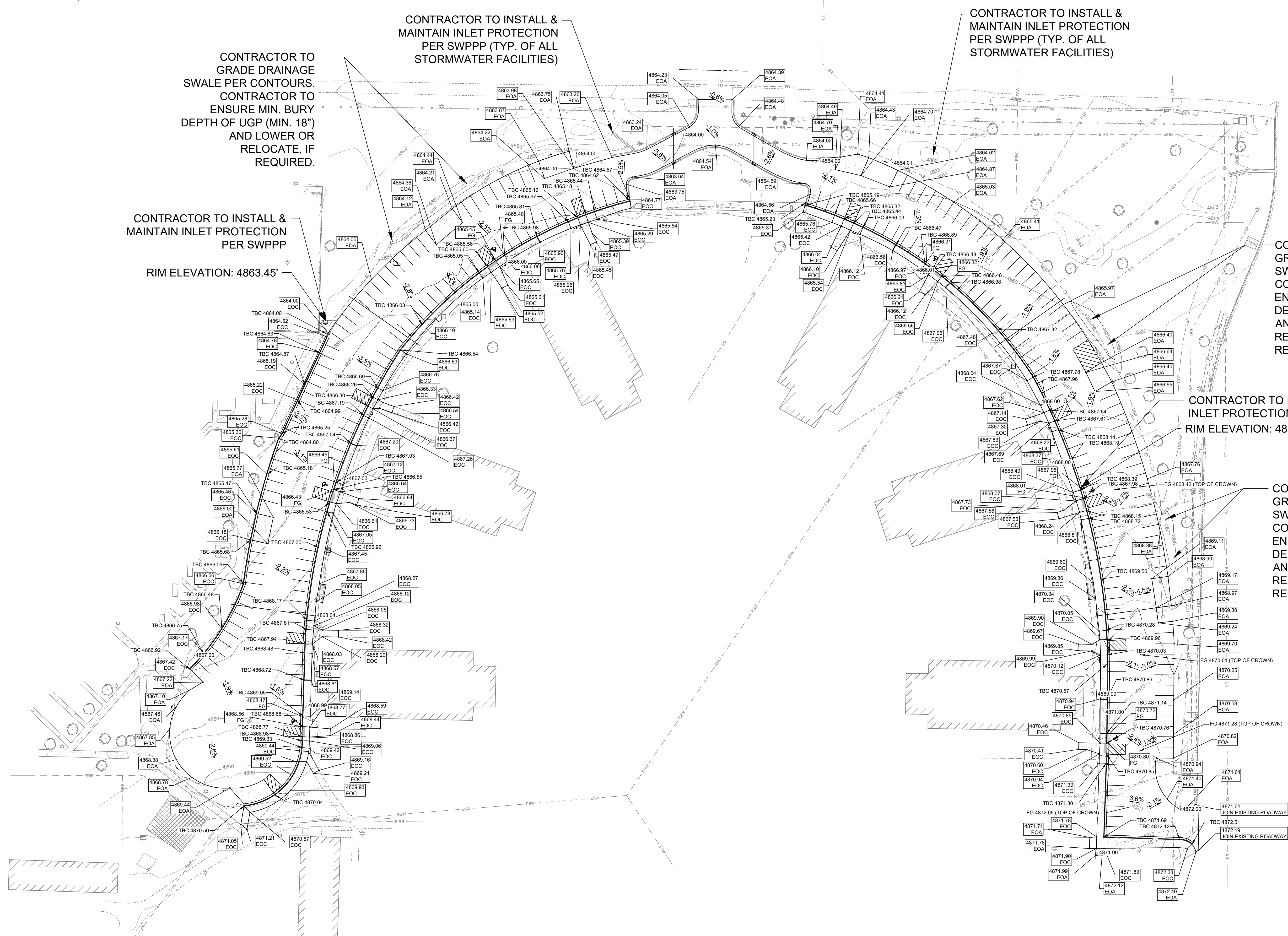
CONTRACTOR TO INSTALL & MAINTAIN INLET PROTECTION PER SWPPP

RIM ELEVATION: 4863.45'

CONTRACTOR TO GRADE DRAINAGE SWALE PER CONTOURS. CONTRACTOR TO ENSURE MIN. BURY DEPTH OF UGP (MIN. 18") AND LOWER OR RELOCATE, IF REQUIRED.

CONTRACTOR TO INSTALL & MAINTAIN INLET PROTECTION PER SWPPP
RIM ELEVATION: 4867.87'

CONTRACTOR TO GRADE DRAINAGE SWALE PER CONTOURS. CONTRACTOR TO ENSURE MIN. BURY DEPTH OF UGP (MIN. 18") AND LOWER OR RELOCATE, IF REQUIRED.



SCALE IN FEET
CONTOUR INTERVAL = 1'
(PLOT SIZE = 24" x 36")



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PARKING IMPROVEMENTS
2025



DRAWN BY: L. OTTEY
REVIEWED BY: K. GAUTHIER

REV.	DESCRIPTION	DATE

PPA#22-0012

GRANT CHAMBERLAIN - GRADING PLAN

SHEET CG1-1

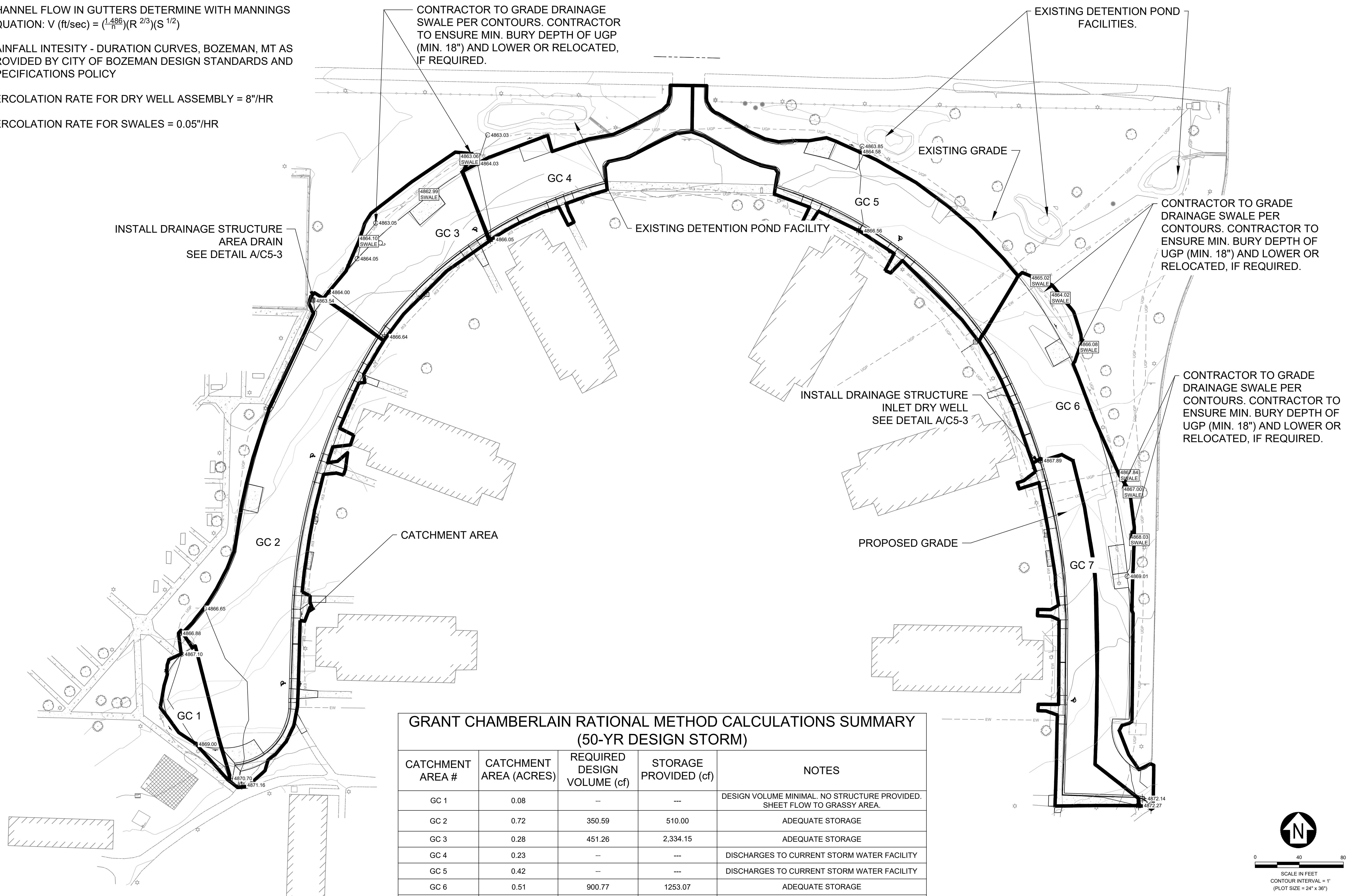
DATE 05-09-23

MFG: 10/14/23 10:00 AM - 10/14/23 10:00 AM
 10/14/23 10:00 AM - 10/14/23 10:00 AM
 10/14/23 10:00 AM - 10/14/23 10:00 AM

STORM WATER CALCULATION ASSUMPTIONS:

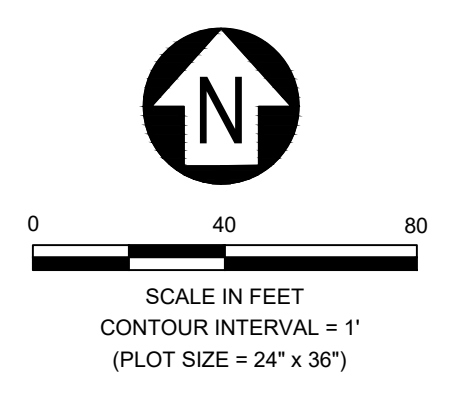
- MODIFIED RATIONAL METHOD: $Q \text{ (cfs)} = CiA$
- PEAK RUNOFF RATE OCCURS WHEN THE DURATION OF THE STORM EQUALS THE TIME OF CONCENTRATION
- CHANNEL FLOW IN GUTTERS DETERMINE WITH MANNINGS EQUATION: $V \text{ (ft/sec)} = \left(\frac{1.486}{n}\right)(R^{2/3})(S^{1/2})$
- RAINFALL INTENSITY - DURATION CURVES, BOZEMAN, MT AS PROVIDED BY CITY OF BOZEMAN DESIGN STANDARDS AND SPECIFICATIONS POLICY
- PERCOLATION RATE FOR DRY WELL ASSEMBLY = 8"/HR
- PERCOLATION RATE FOR SWALES = 0.05"/HR

W COLLEGE ST



GRANT CHAMBERLAIN RATIONAL METHOD CALCULATIONS SUMMARY (50-YR DESIGN STORM)

CATCHMENT AREA #	CATCHMENT AREA (ACRES)	REQUIRED DESIGN VOLUME (cf)	STORAGE PROVIDED (cf)	NOTES
GC 1	0.08	---	---	DESIGN VOLUME MINIMAL. NO STRUCTURE PROVIDED. SHEET FLOW TO GRASSY AREA.
GC 2	0.72	350.59	510.00	ADEQUATE STORAGE
GC 3	0.28	451.26	2,334.15	ADEQUATE STORAGE
GC 4	0.23	---	---	DISCHARGES TO CURRENT STORM WATER FACILITY
GC 5	0.42	---	---	DISCHARGES TO CURRENT STORM WATER FACILITY
GC 6	0.51	900.77	1253.07	ADEQUATE STORAGE
GC 7	0.22	172.88	510.00	ADEQUATE STORAGE

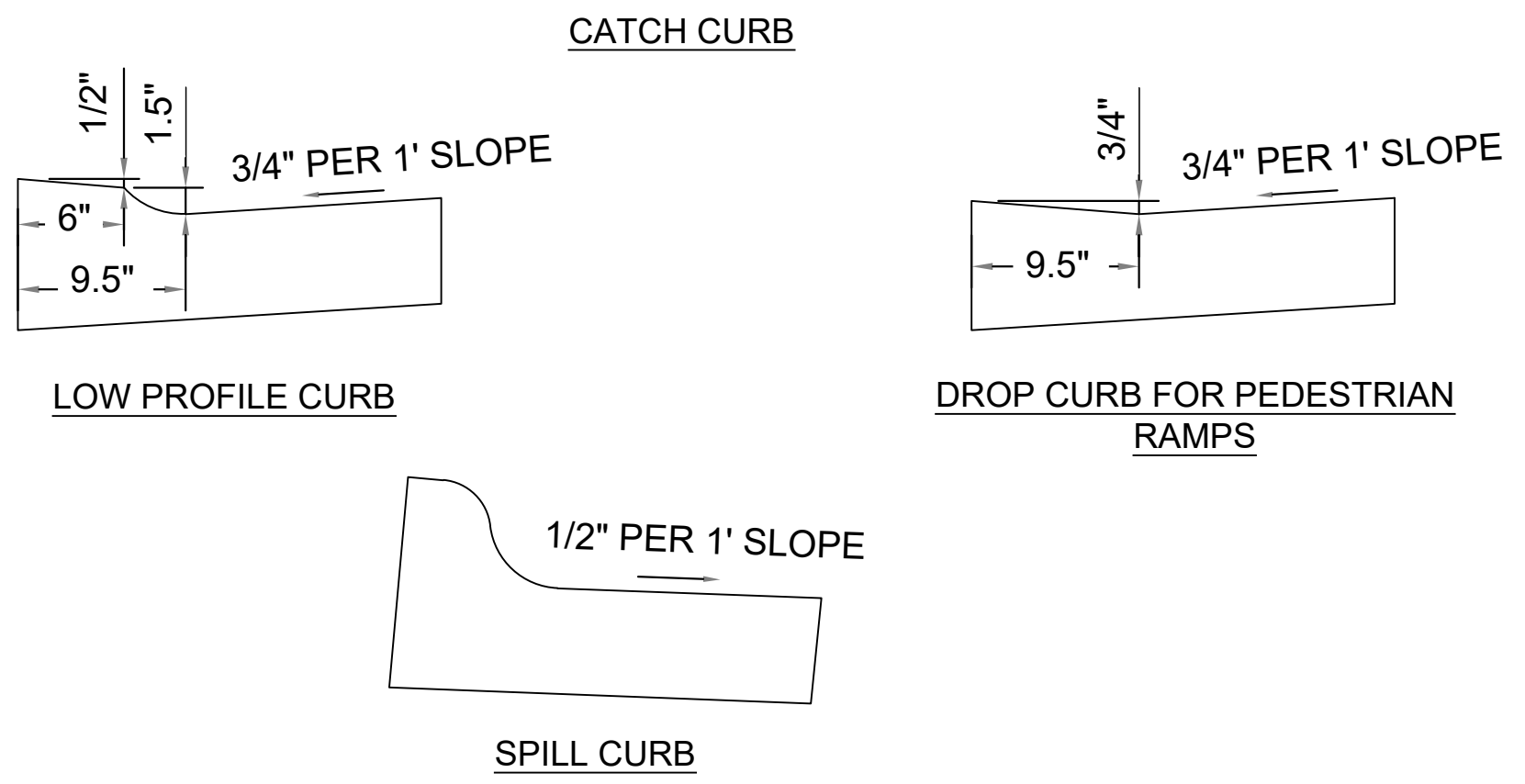
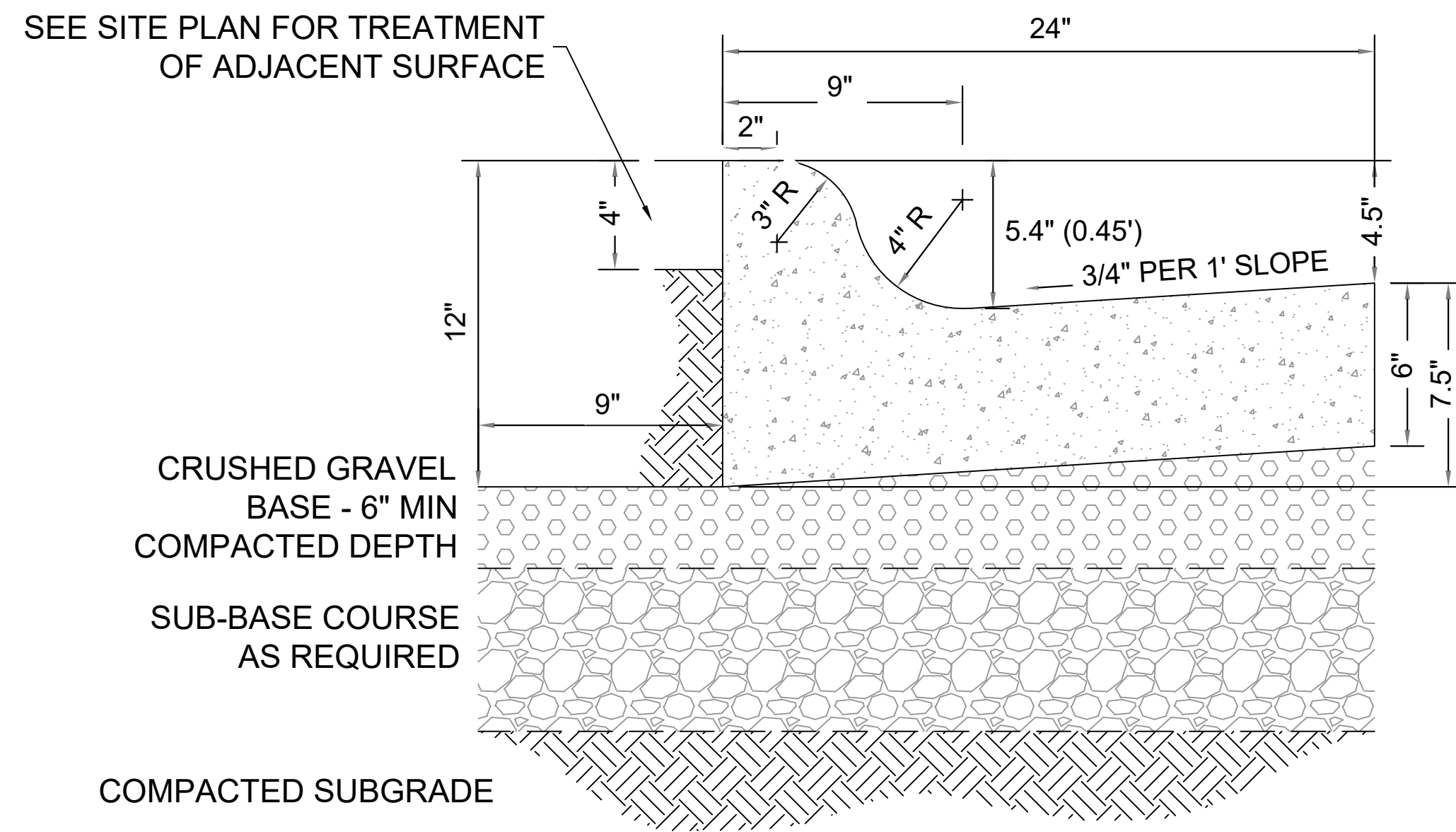


DRAWN BY: S. ESLINGER
REVIEWED BY: K. GAUTHIER

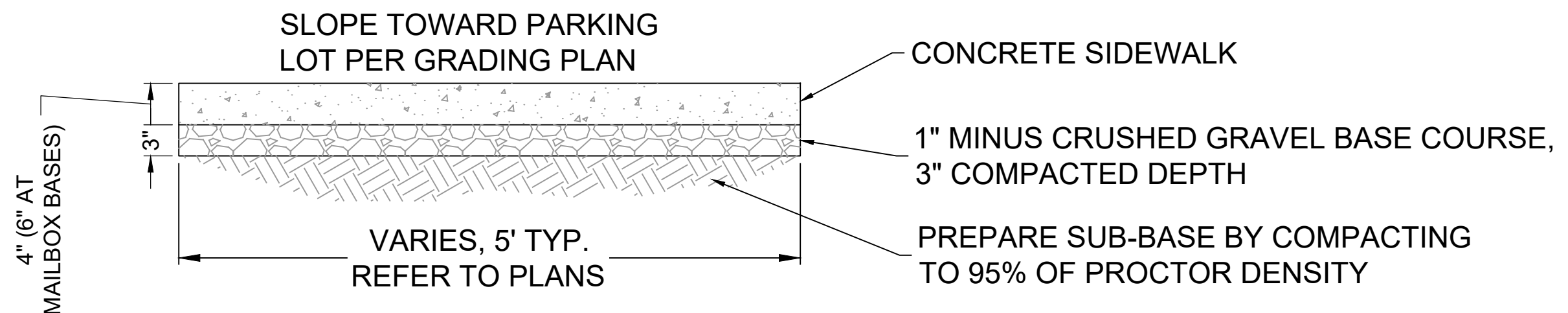
REV.	DESCRIPTION	DATE

PPA#22-0012

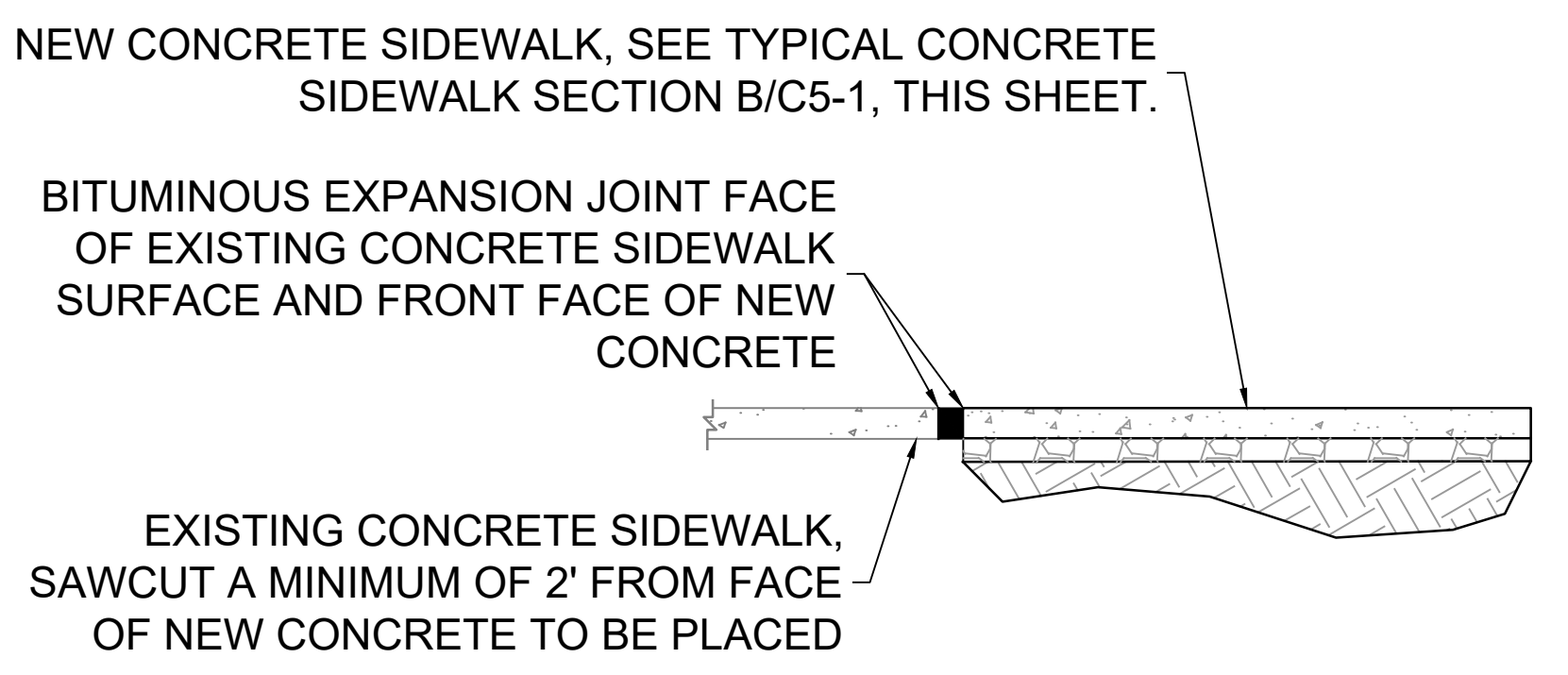
NO. 10, 10.14, 10.16, 10.17, 10.18, 10.19, 10.20, 10.21, 10.22, 10.23, 10.24, 10.25, 10.26, 10.27, 10.28, 10.29, 10.30, 10.31, 10.32, 10.33, 10.34, 10.35, 10.36, 10.37, 10.38, 10.39, 10.40, 10.41, 10.42, 10.43, 10.44, 10.45, 10.46, 10.47, 10.48, 10.49, 10.50, 10.51, 10.52, 10.53, 10.54, 10.55, 10.56, 10.57, 10.58, 10.59, 10.60, 10.61, 10.62, 10.63, 10.64, 10.65, 10.66, 10.67, 10.68, 10.69, 10.70, 10.71, 10.72, 10.73, 10.74, 10.75, 10.76, 10.77, 10.78, 10.79, 10.80, 10.81, 10.82, 10.83, 10.84, 10.85, 10.86, 10.87, 10.88, 10.89, 10.90, 10.91, 10.92, 10.93, 10.94, 10.95, 10.96, 10.97, 10.98, 10.99, 11.00



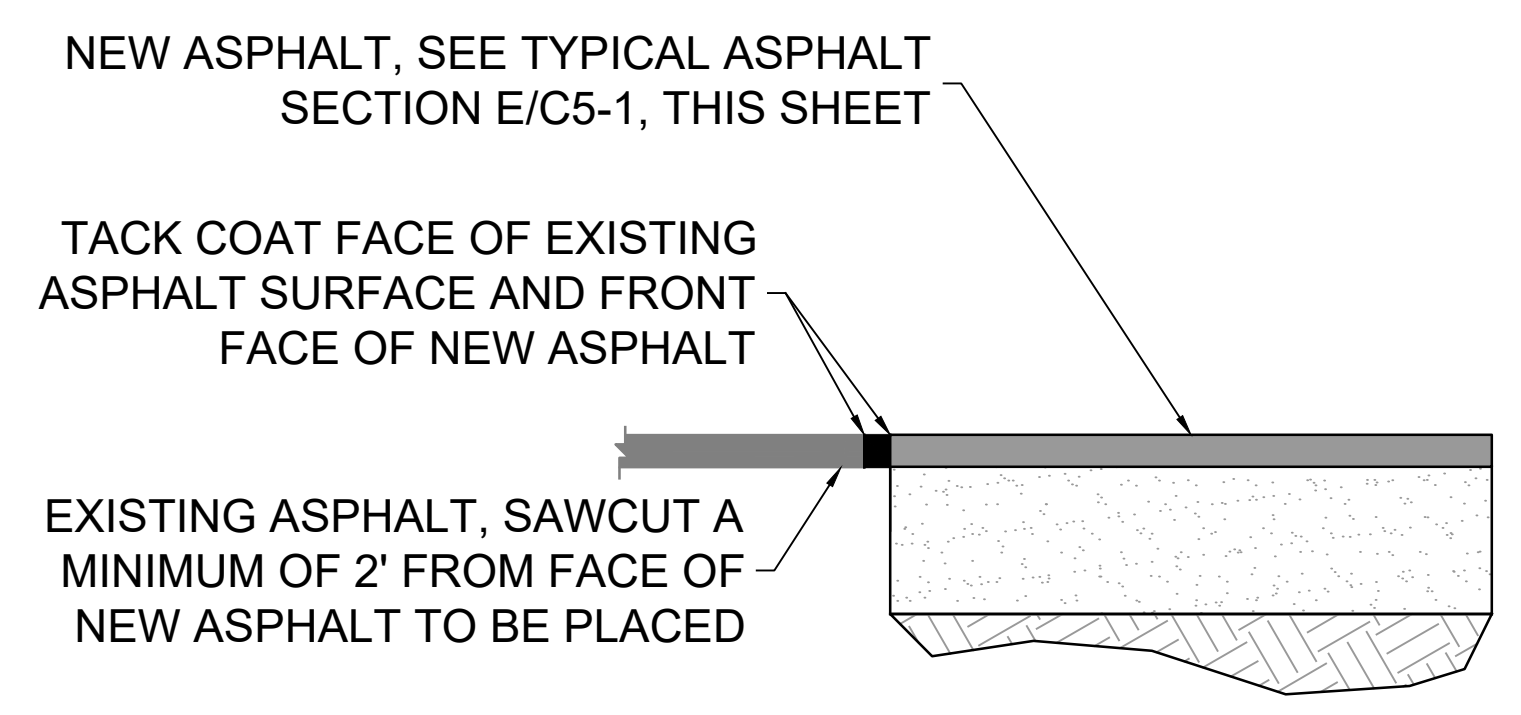
A INTEGRAL CURB & GUTTER
C5-1 NTS



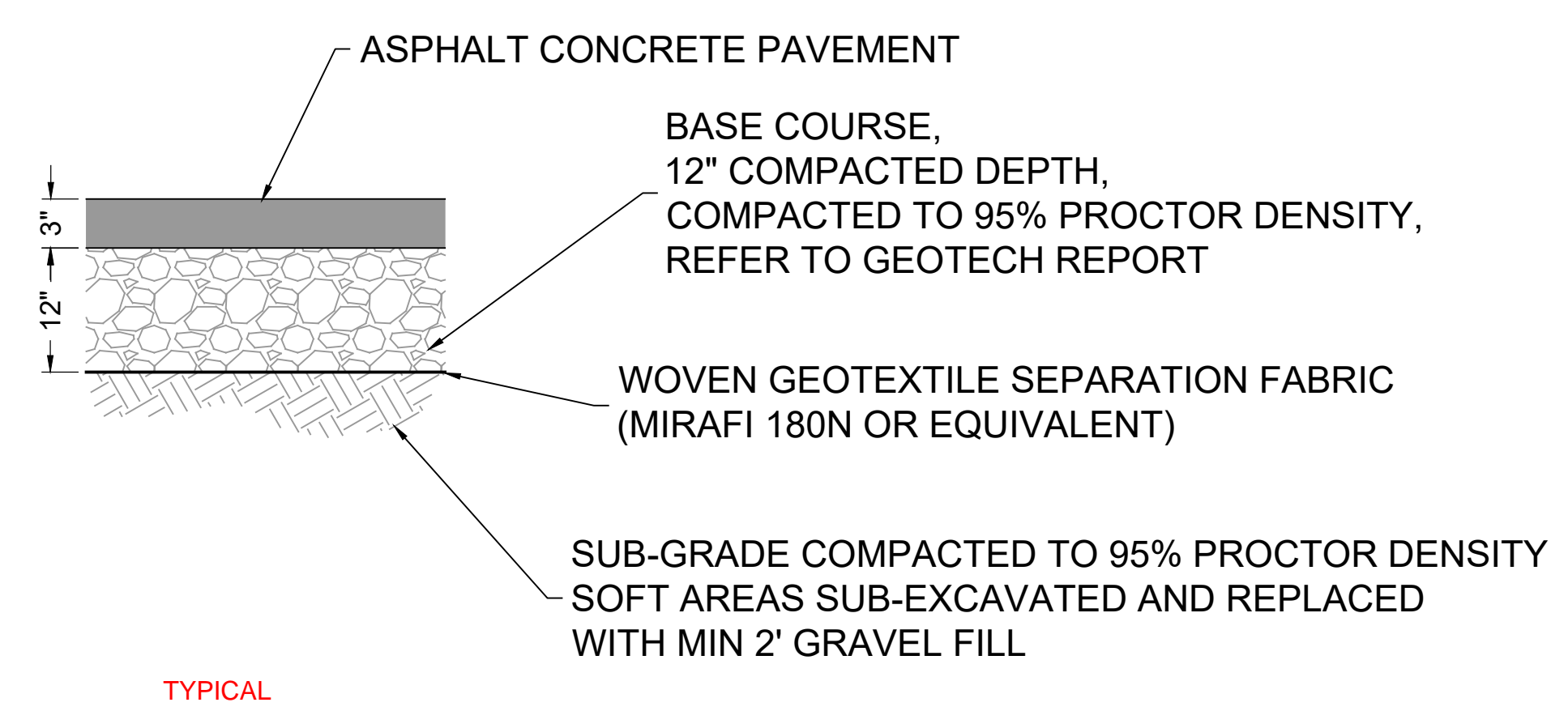
B TYPICAL CONCRETE SIDEWALK SECTION
C5-1 NTS



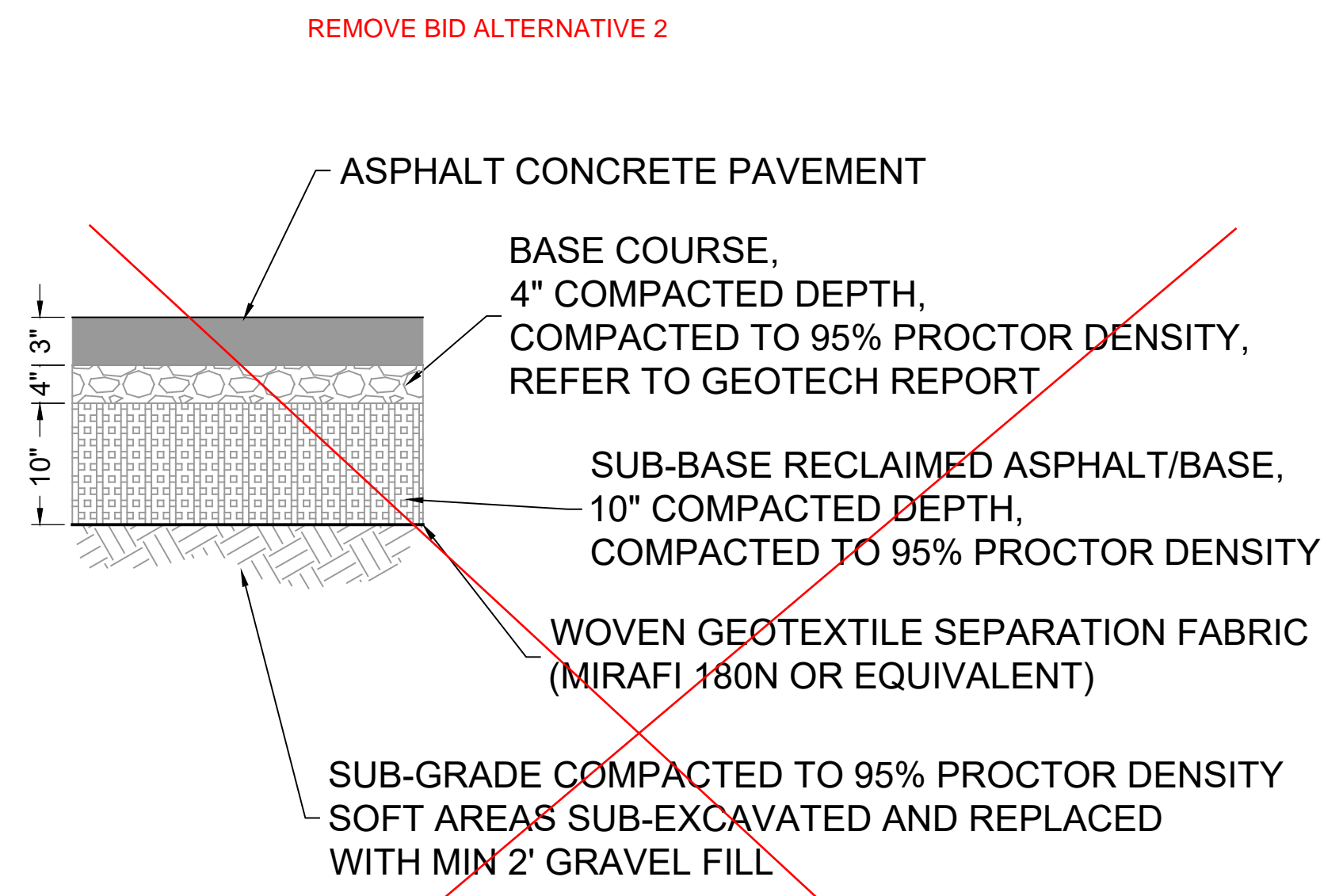
C TYPICAL CONCRETE CUT
C5-1 NTS



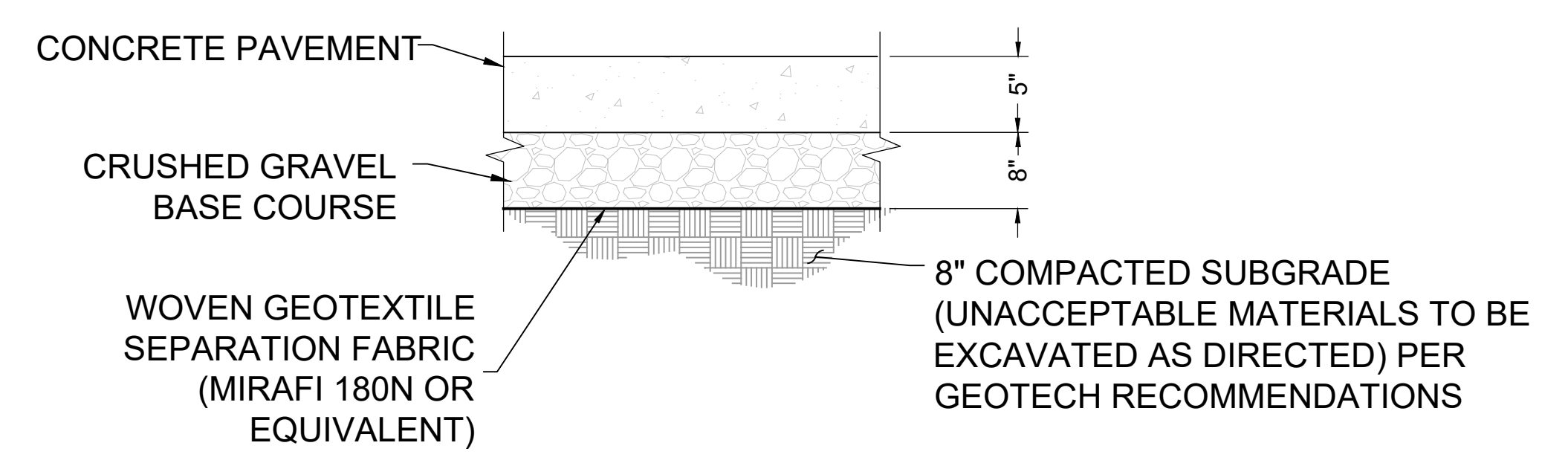
D TYPICAL ASPHALT CUT
C5-1 NTS



E ~~BID ALTERNATIVE 1~~ ASPHALT SECTION
C5-1 NTS



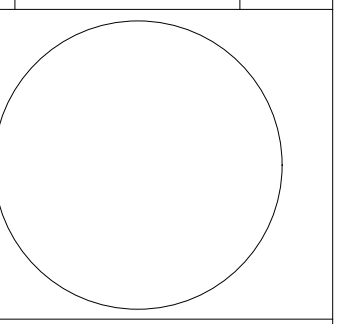
F ~~BID ALTERNATIVE 2~~ ASPHALT SECTION
C5-1 NTS



NOTE: REINFORCE AND PLACE JOINTS PER SPECIFICATION & JOINT DETAIL. PLACE CROSS JOINTS ON DRIVE-THRU CONCRETE APPROX. EVERY 10' AS TO MAKE THE CONCRETE PANELS AS SQUARE AS POSSIBLE. SEE GEOTECH REPORT FOR SECTION DETAILS.

G REINFORCED CONCRETE SECTION
C5-1 NTS

REV.	DESCRIPTION	DATE

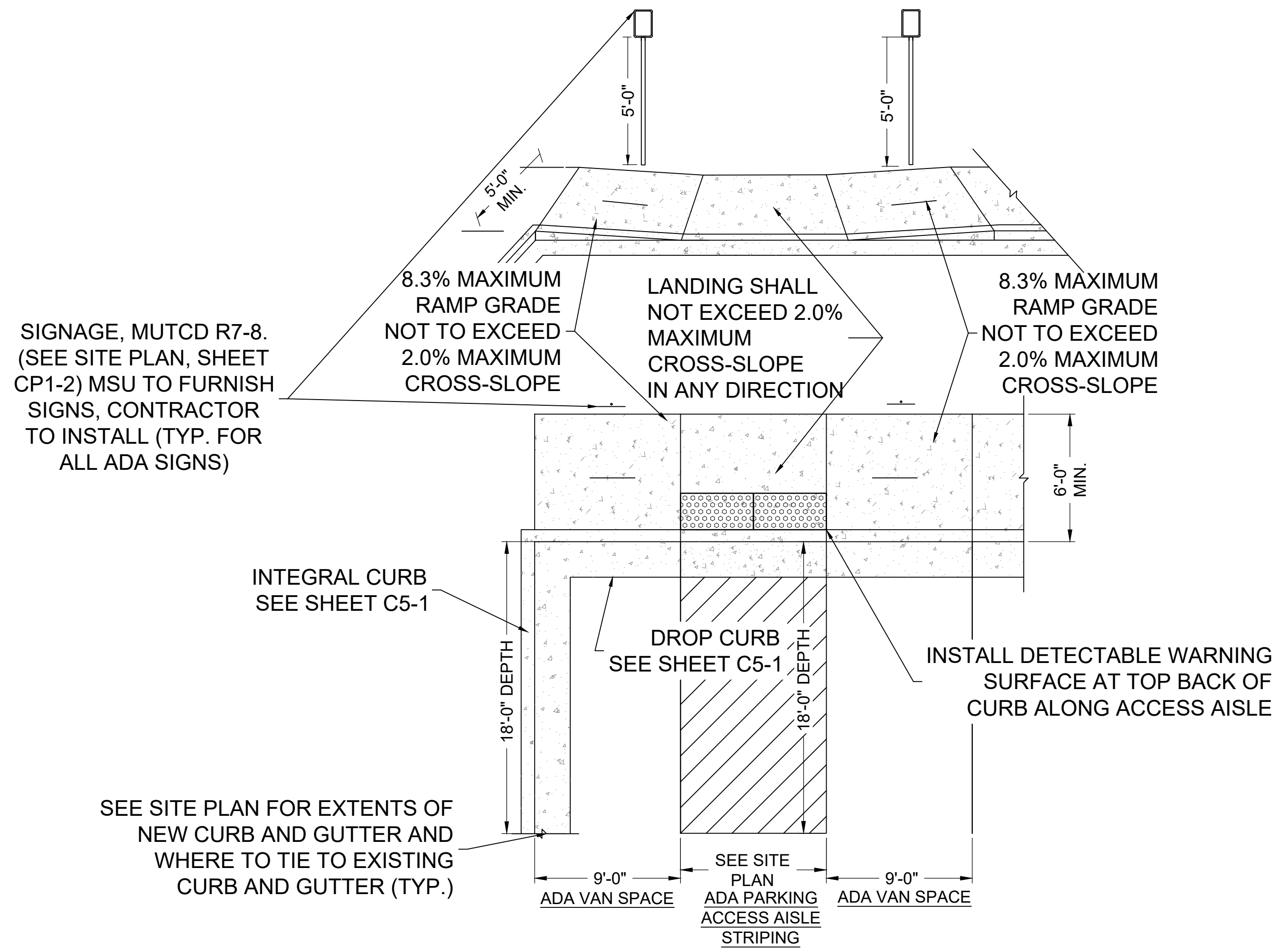


PPA#22-0012

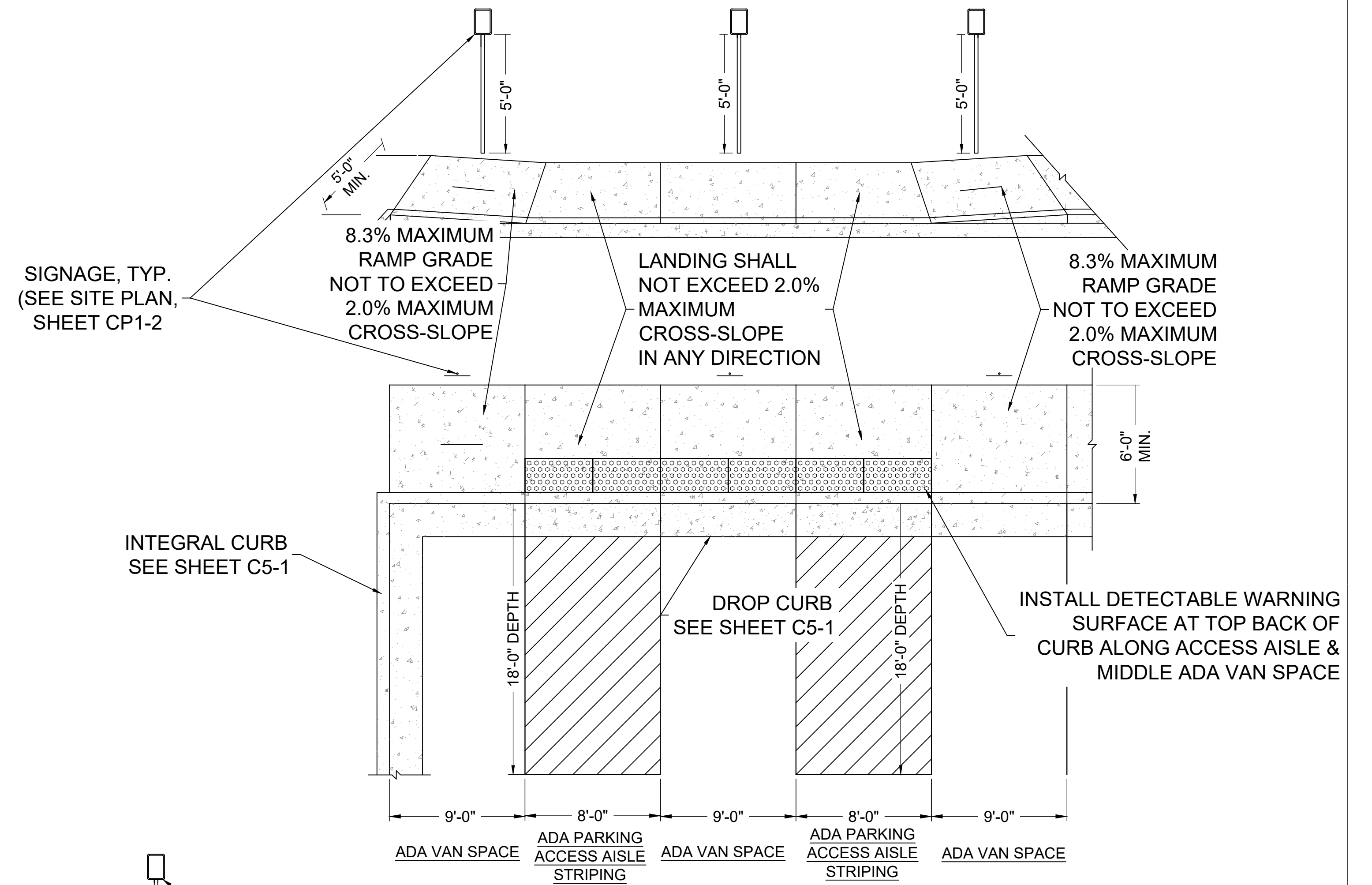
DETAILS 1

SHEET
C5-1

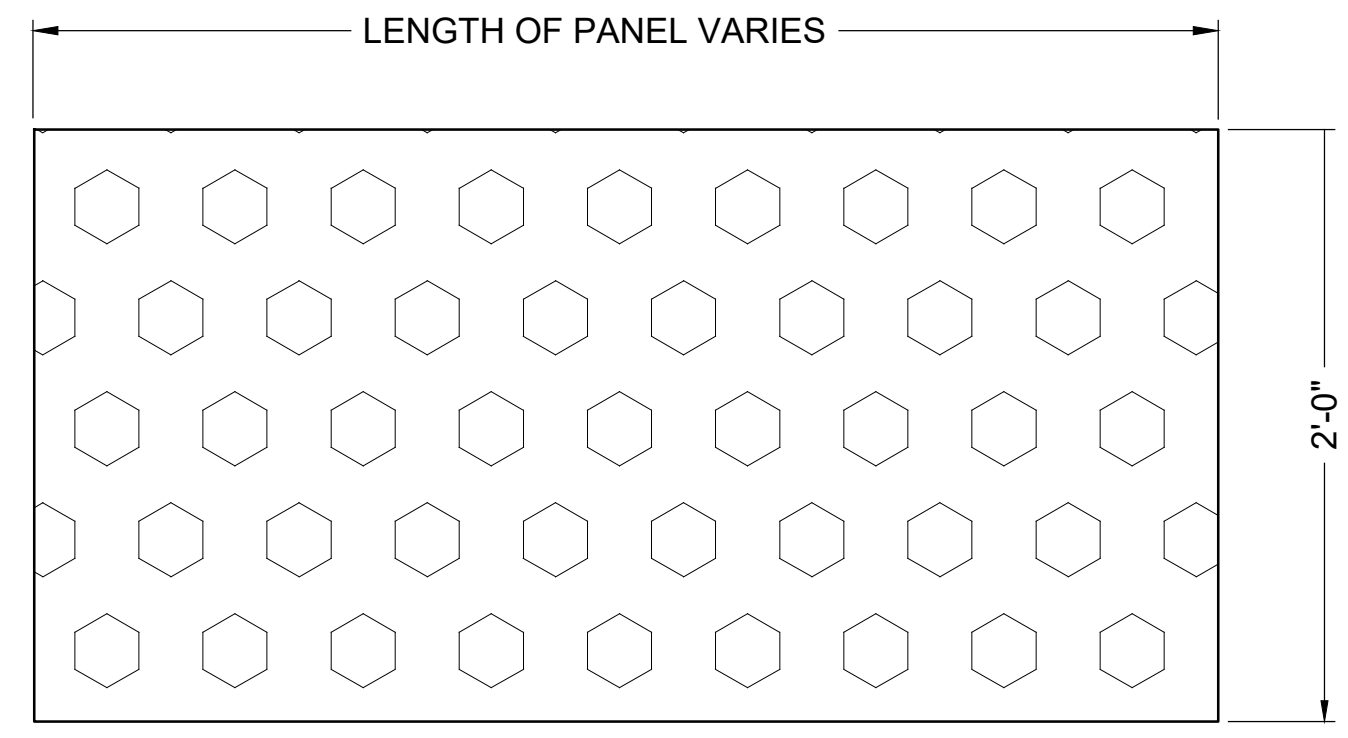
DATE
05-09-23



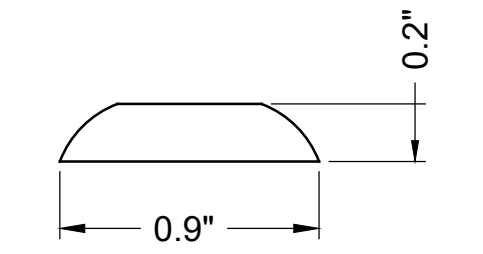
A ADA STALL DETAIL - PAISLEY WEST
 C5-2 NTS



B ADA STALL DETAIL - PAISLEY EAST
 C5-2 NTS



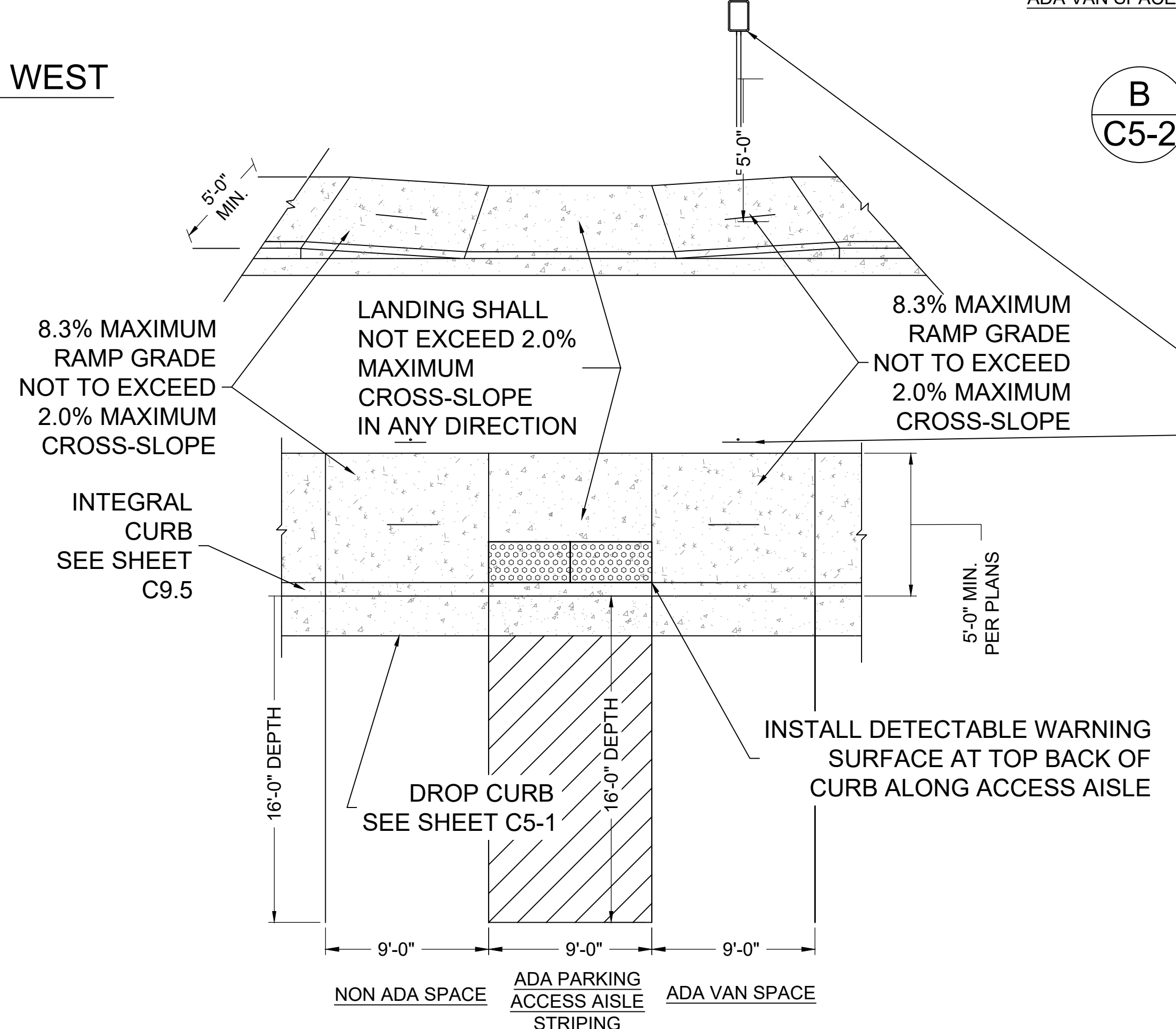
THE DETECTABLE WARNING SURFACE SHALL EXTEND THE FULL LENGTH OF THE CURB PER PLANS. IT SHALL BE A CONTRASTING COLOR AND MEET THE DIMENSIONS SHOWN OF THE TRUNCATED DOME



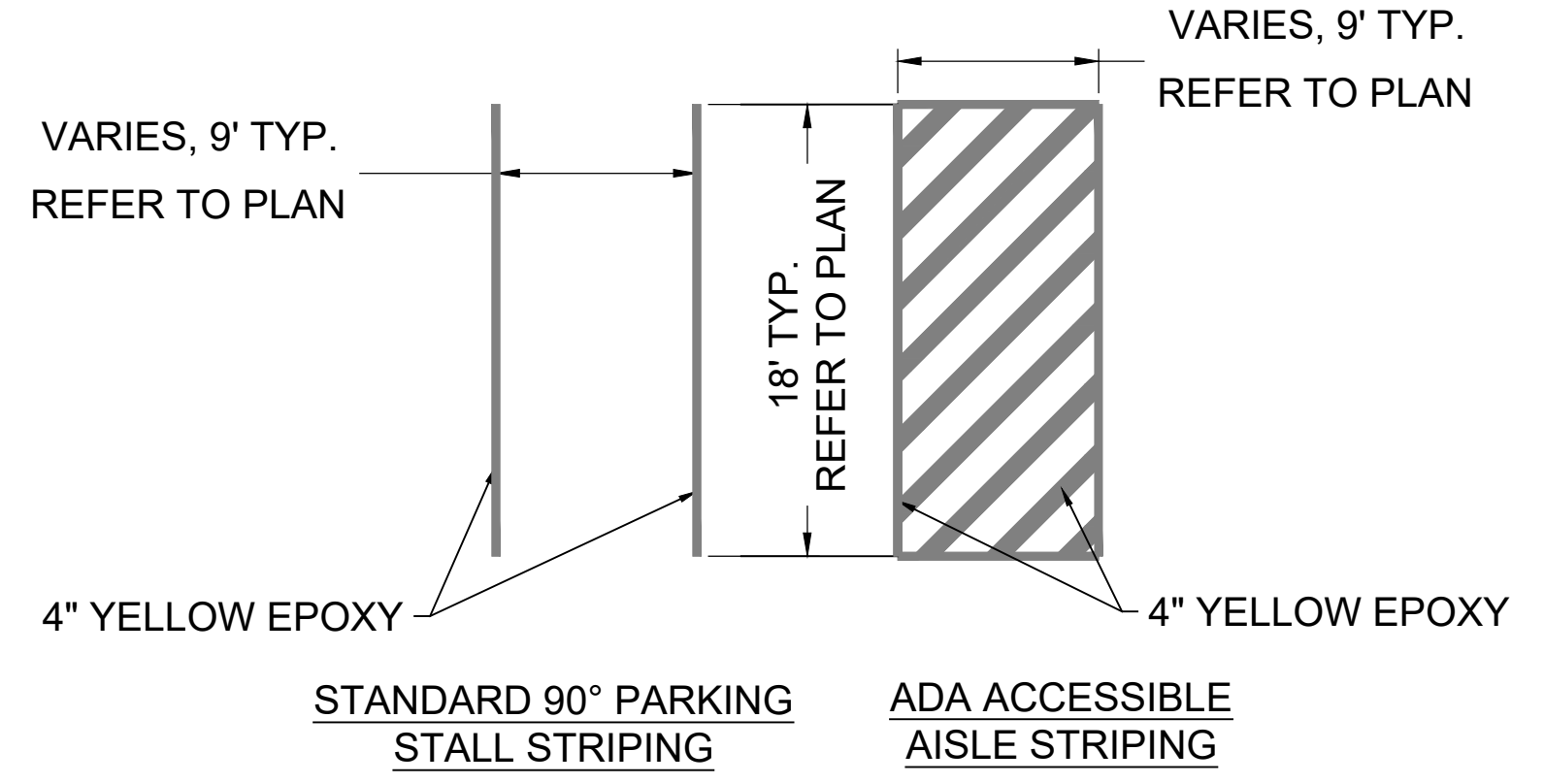
DETECTABLE WARNING SURFACE

TRUNCATED DOME

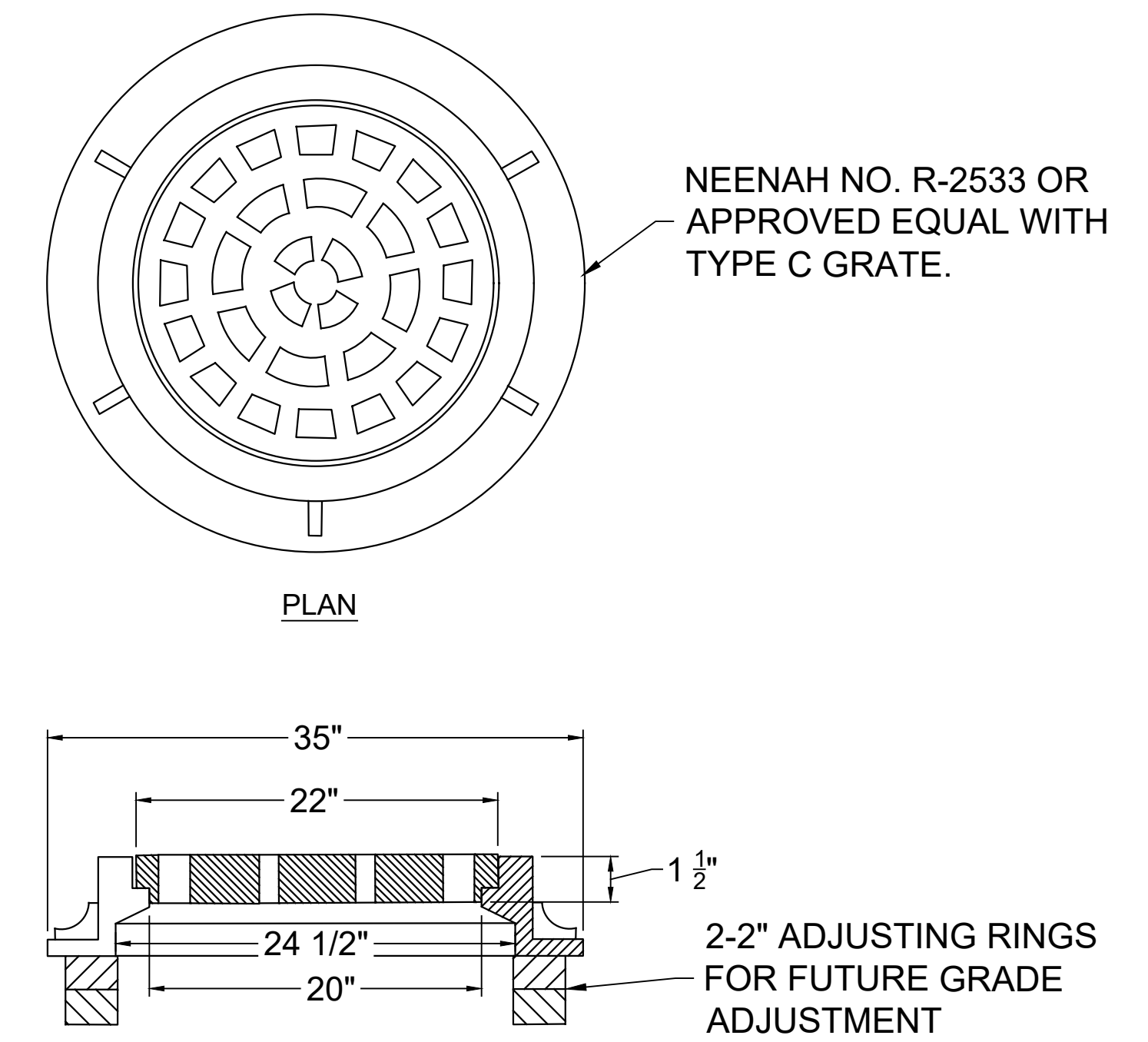
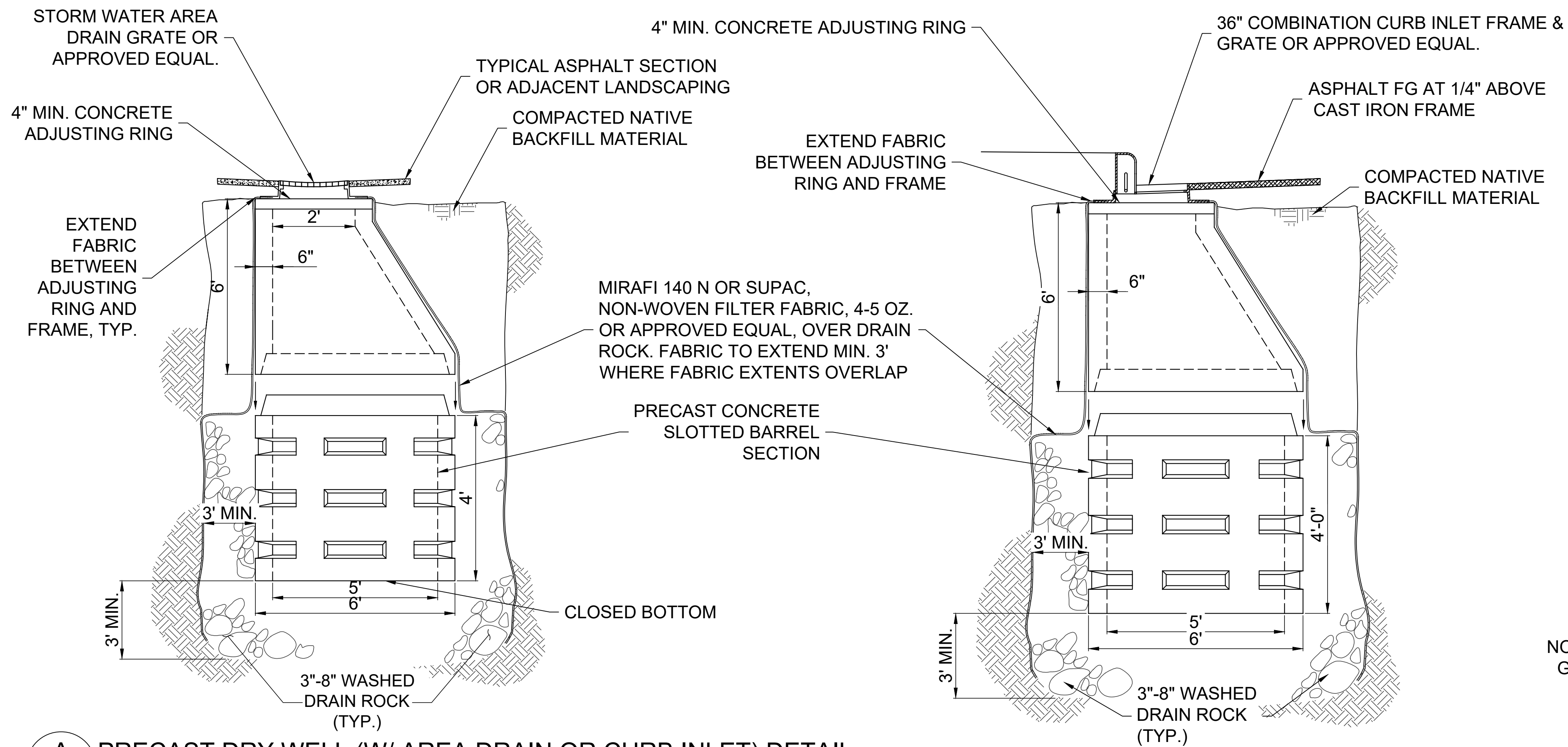
C DETECTABLE WARNING DETAIL
 C5-2 NTS



D ADA STALL DETAIL - GRANT CHAMBERLAIN
 C5-2 NTS



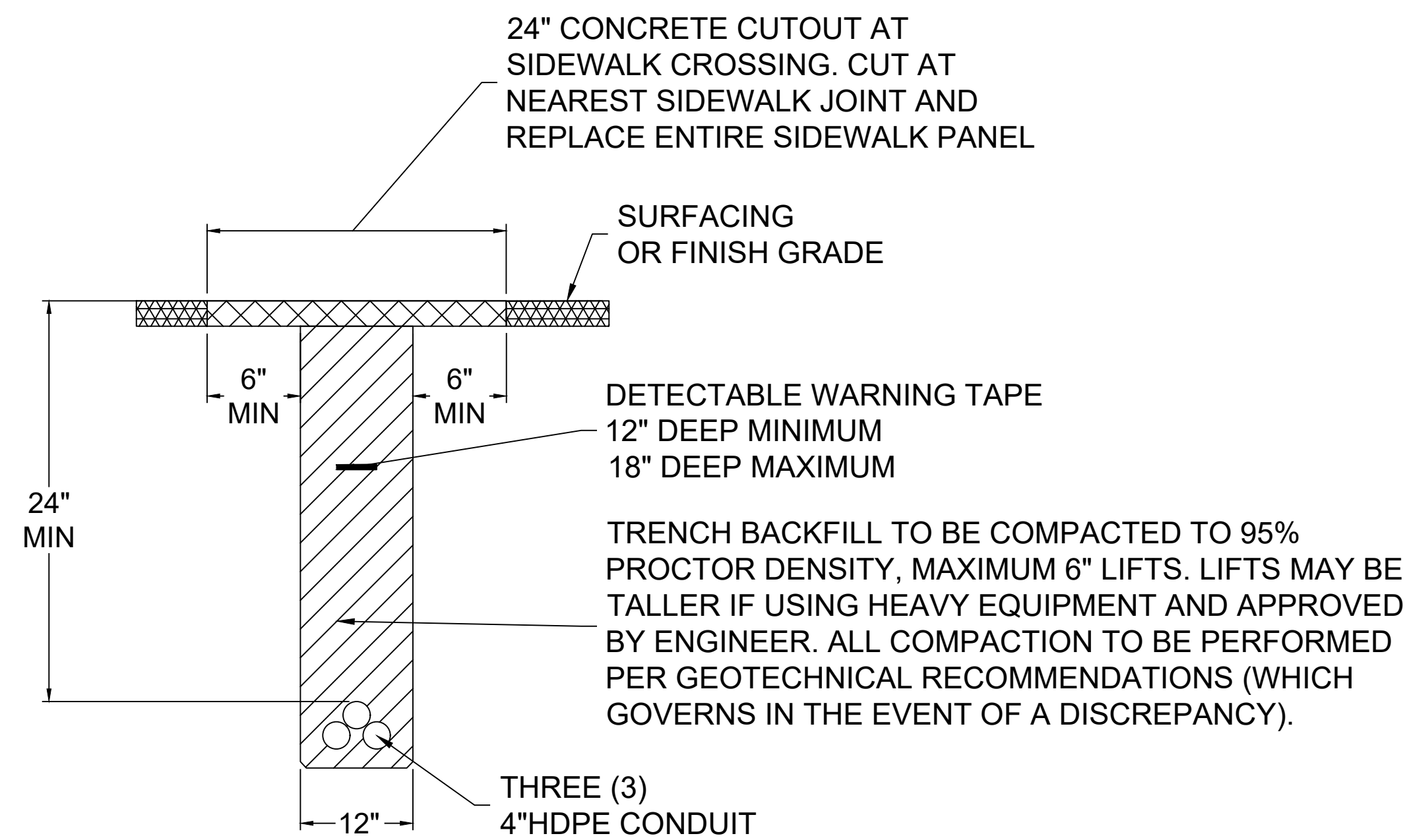
E TYPICAL PAVEMENT MARKINGS
 C5-2 NTS



NOTE: CONTRACTOR MAY USE APPROVED EQUIVALENT, TRAFFIC-RATED GRATED MANHOLE THROUGH SUBMITTAL PROCESS.

A PRECAST DRY WELL (W/ AREA DRAIN OR CURB INLET) DETAIL
C5-3 NTS

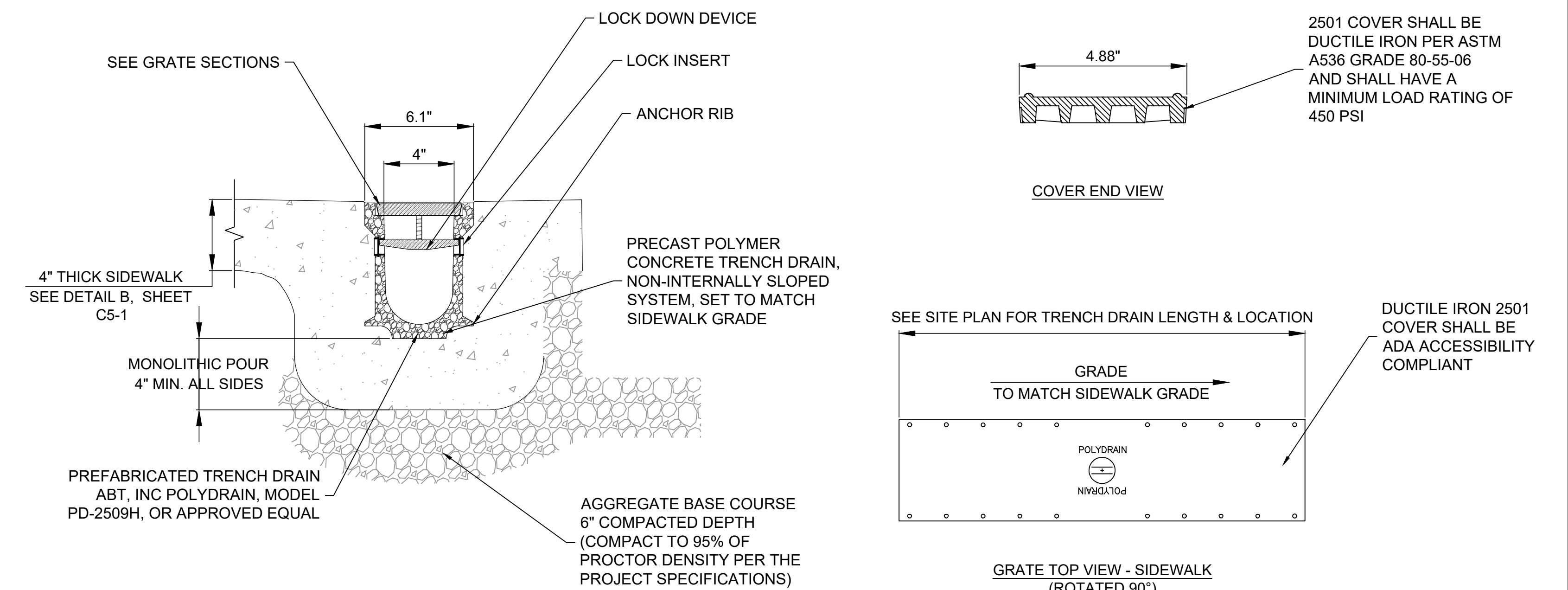
B STORM DRAIN GRATE
C5-3 NTS



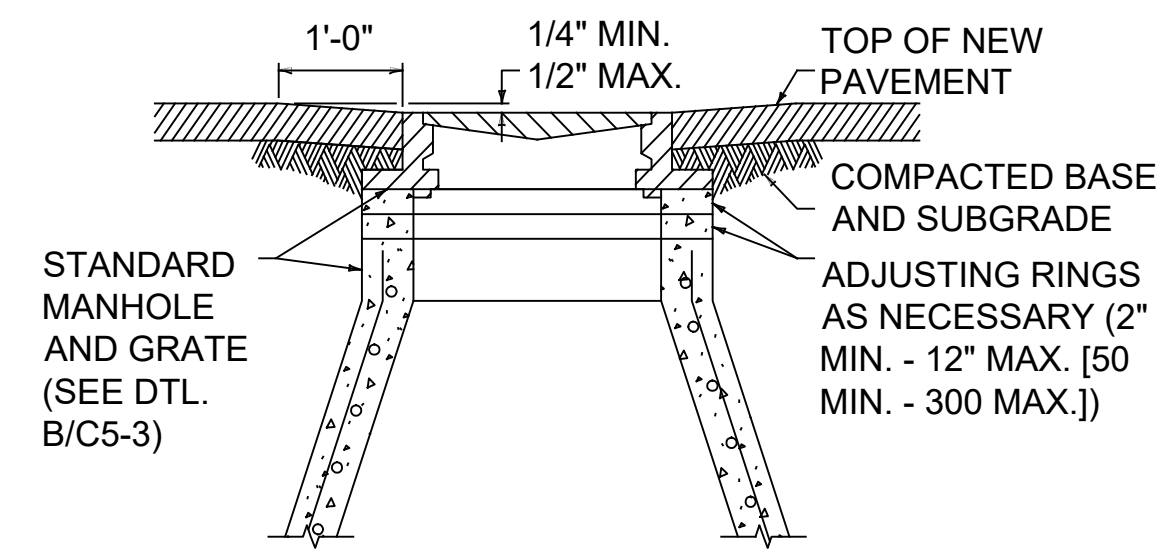
DETAIL NOTES:

1. CONTRACTOR SHALL COORDINATE TRENCHING WITH OTHER UNDERGROUND UTILITIES. CONTRACTOR SHALL USE COMMON TRENCHES AT ALL CROSSING WHENEVER POSSIBLE.
2. 1-#12 AWG LOCATE WIRE AND A NYLON OR POLYESTER PULL TAPE WITH 1,250 LBS TEST STRENGTH AND FOOTAGE MARKINGS IN ALL EMPTY CONDUITS.
3. CUT WIDTH VARIES OUTSIDE OF SIDEWALK. REFER TO SITE PLAN AND GRADING PLAN FOR CUT WIDTH AND PROPOSED FINISH SURFACE GRADE

C CONDUIT TRENCH DETAIL
C5-3 NTS

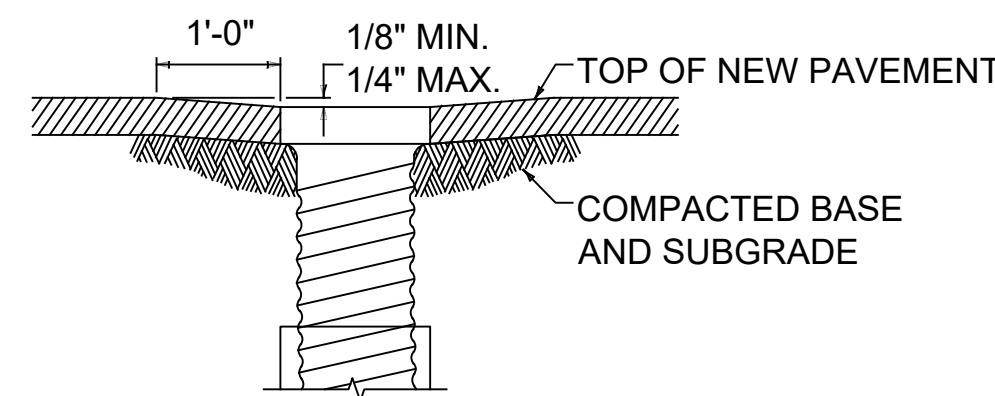


D TRENCH DRAIN DETAIL
C5-3 NTS



- NOTES:
1. ADJUST MANHOLES UPWARD WITH ADJUSTING RINGS UNDER FRAME.
 2. ADJUST MANHOLES DOWNWARD BY REMOVING CONE AND BARREL SECTIONS AS NECESSARY AND REPLACING WITH SECTIONS OF LENGTH REQUIRED TO MATCH GRADE.
 3. SLOPE MANHOLE FRAME AS REQUIRED TO MATCH SLOPE OF STREET.
 4. MAKE FINAL MANHOLE ADJUSTMENTS BEFORE PAVING.

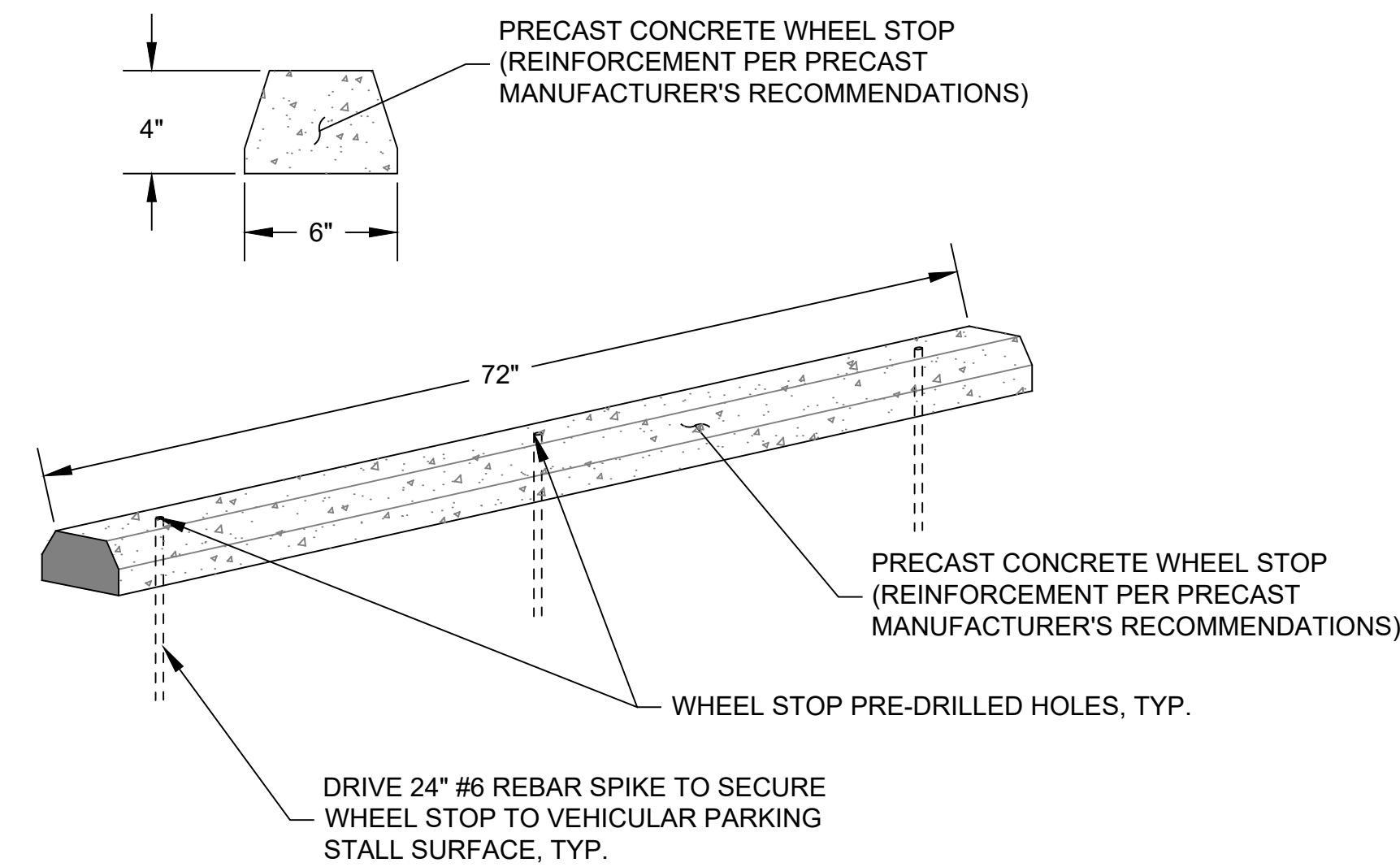
MANHOLE ADJUSTMENT DETAIL



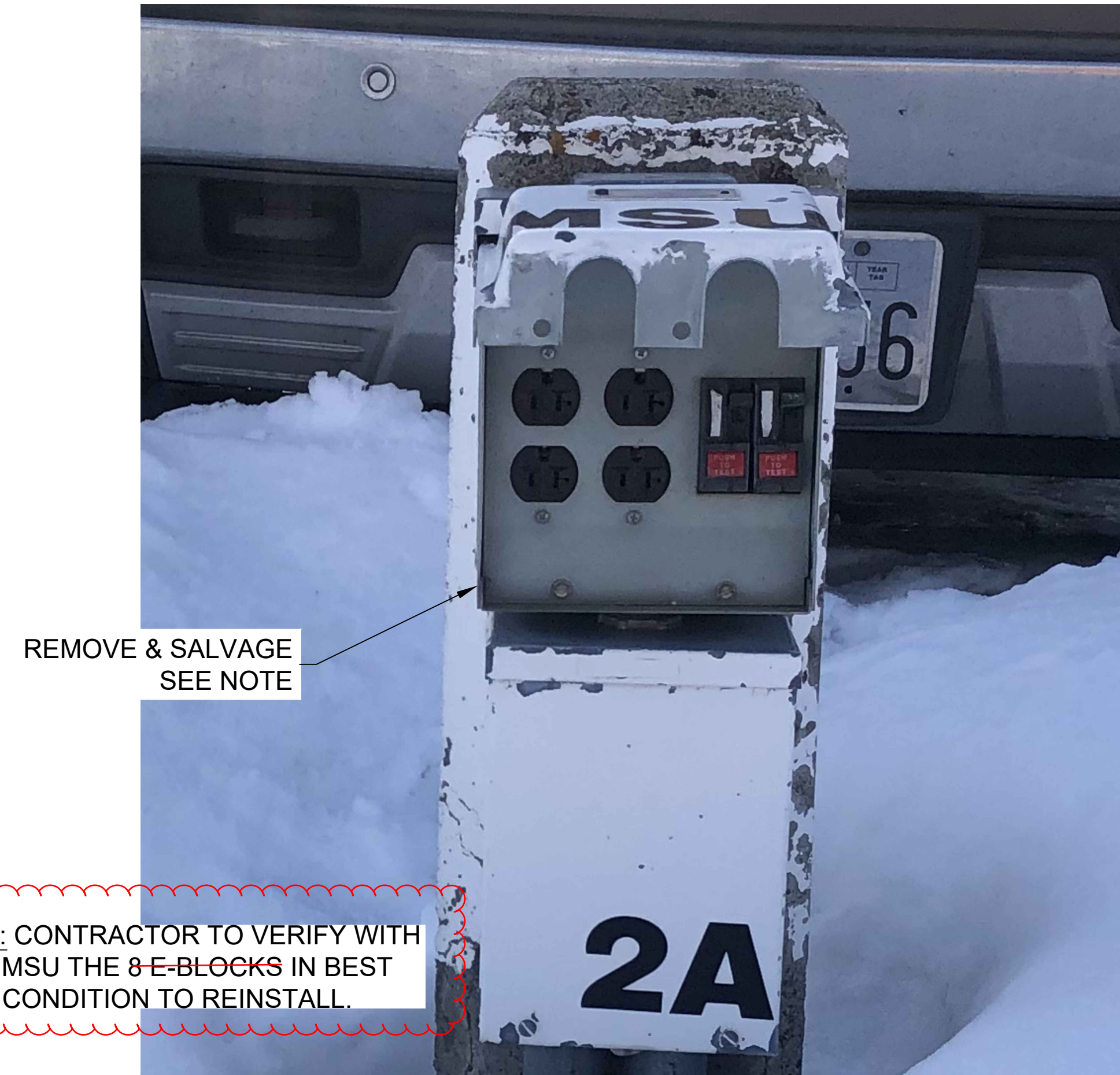
- NOTES:
1. ADJUST WATER VALVES UPWARD OR DOWNWARD AS REQUIRED.
 2. MAKE FINAL ADJUSTMENTS BEFORE PAVING.

VALVE BOX ADJUSTMENT DETAIL

A MANHOLE AND VALVE BOX ADJUSTMENT DETAILS
C5-4 NTS



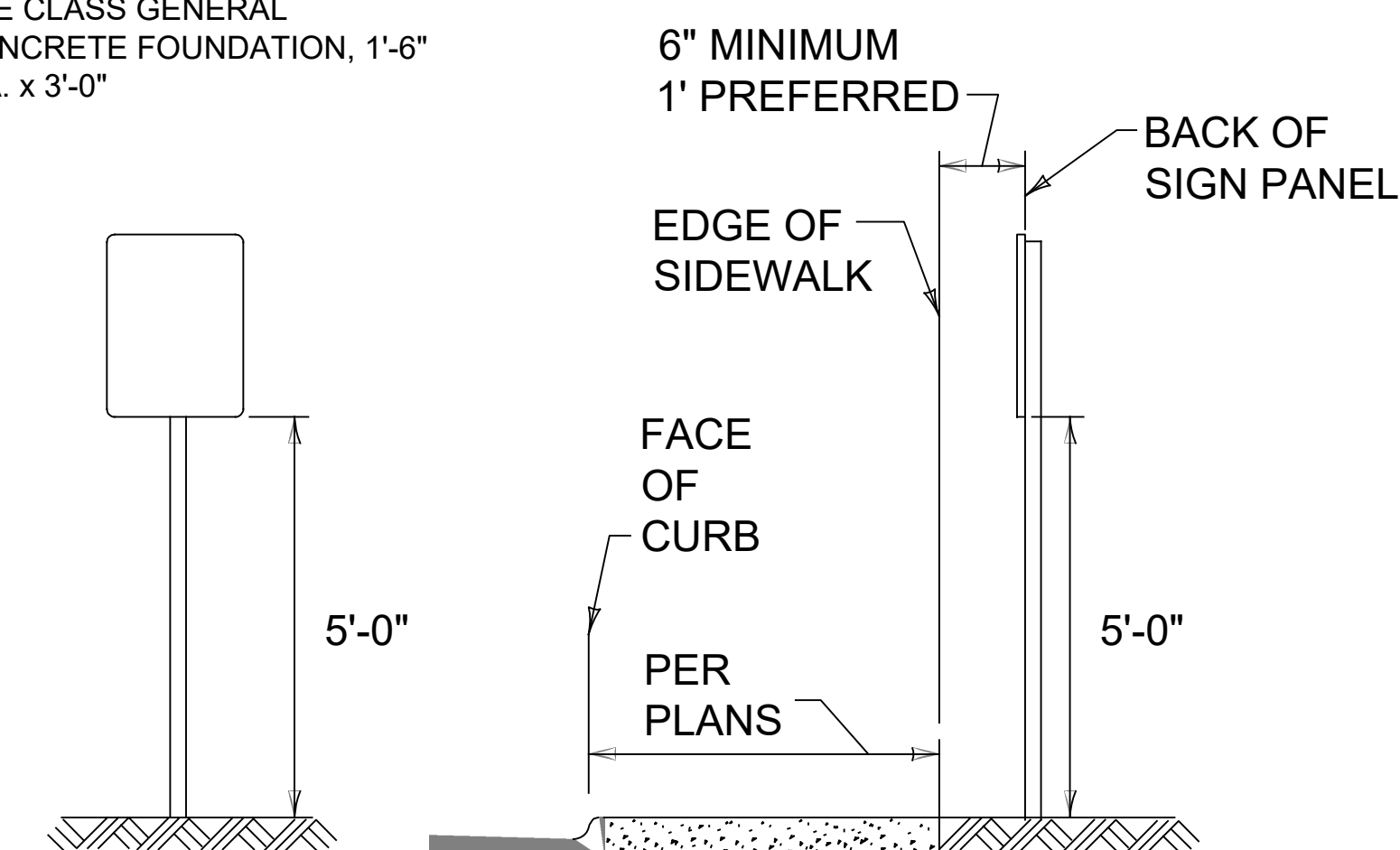
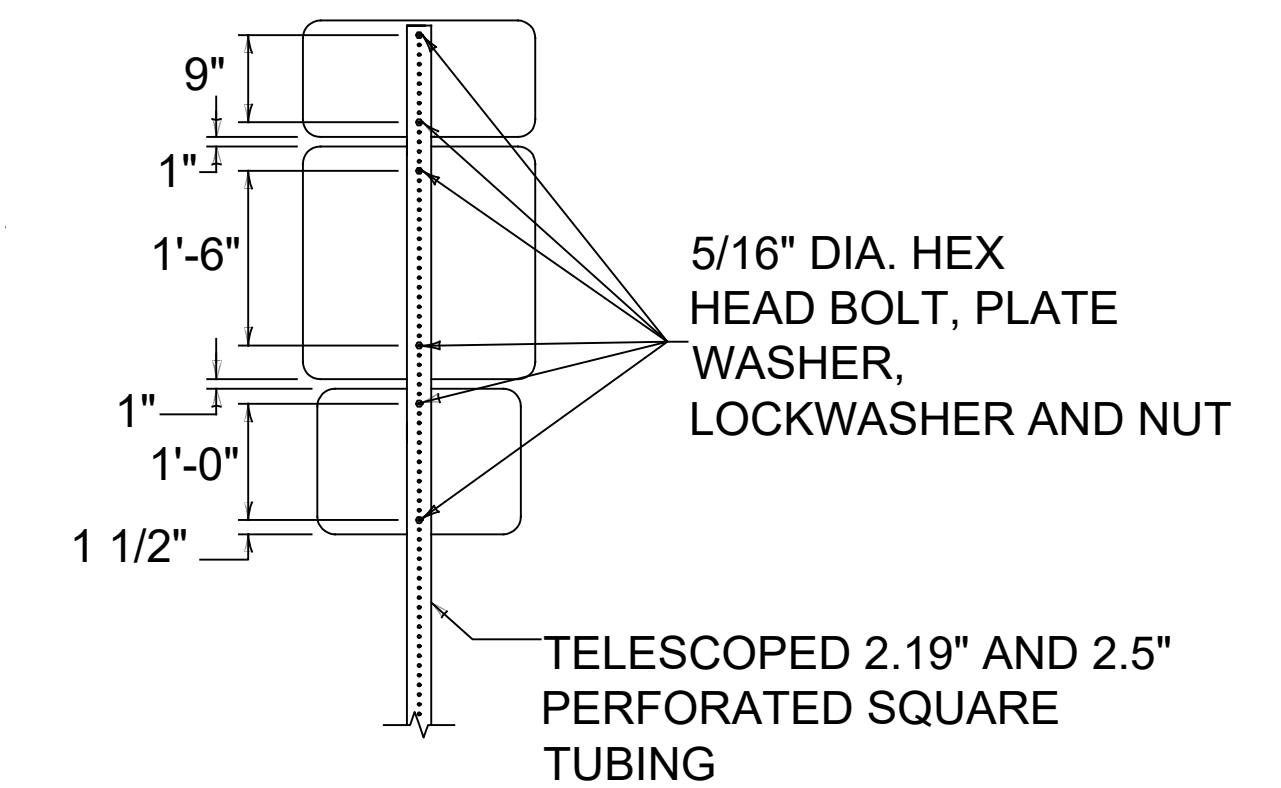
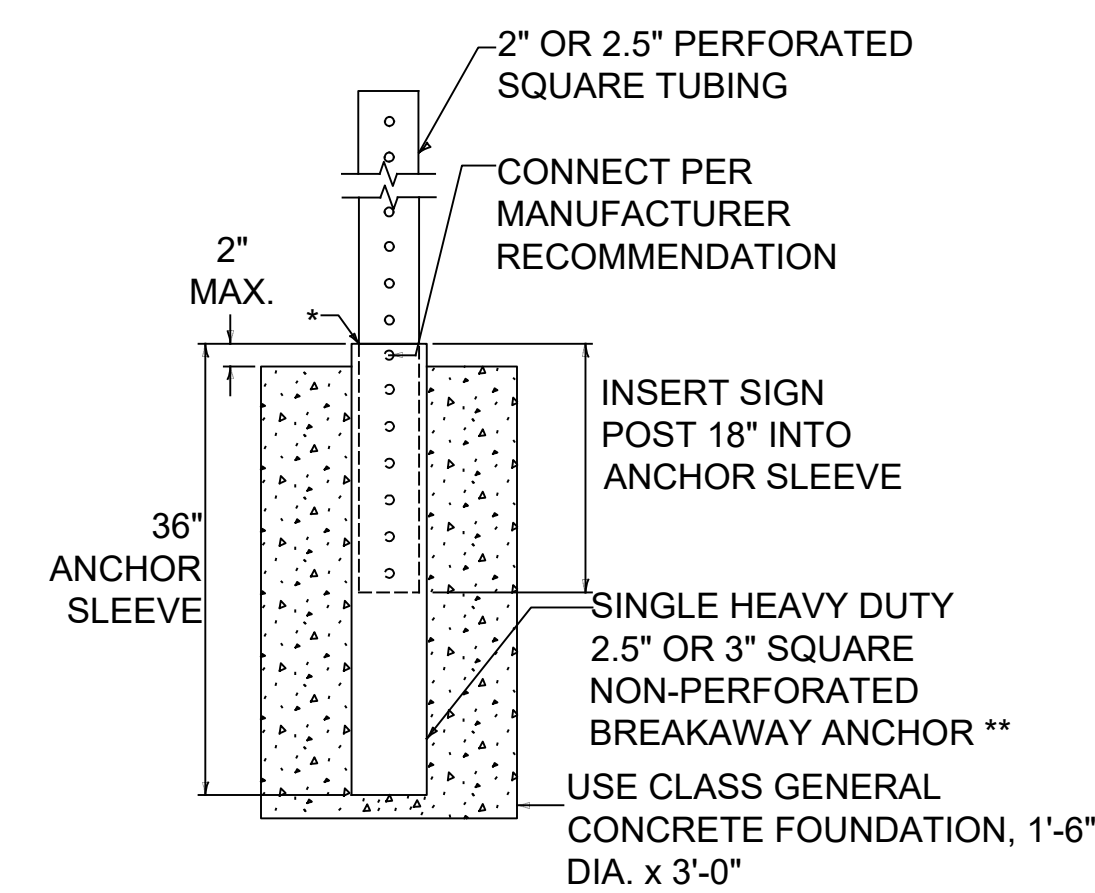
C CONCRETE WHEEL STOP DETAIL
C5-4 NTS



4 E-BLOCKS FOR REINSTALL

NOTE: CONTRACTOR TO VERIFY WITH MSU THE 8 E-BLOCKS IN BEST CONDITION TO REINSTALL.

B E-BLOCK
C5-4 NTS



D SIGN INSTALLATION DETAIL
C5-4 NTS

PROJECT INFORMATION

MSU - PAISLEY COURT || LIGHTING PLAN
BOZEMAN, MONTANA

CONSTRUCTION DOCUMENTS

DATE ISSUED | 03/01/2023
PROJECT ENGINEER | ANDY MOORE

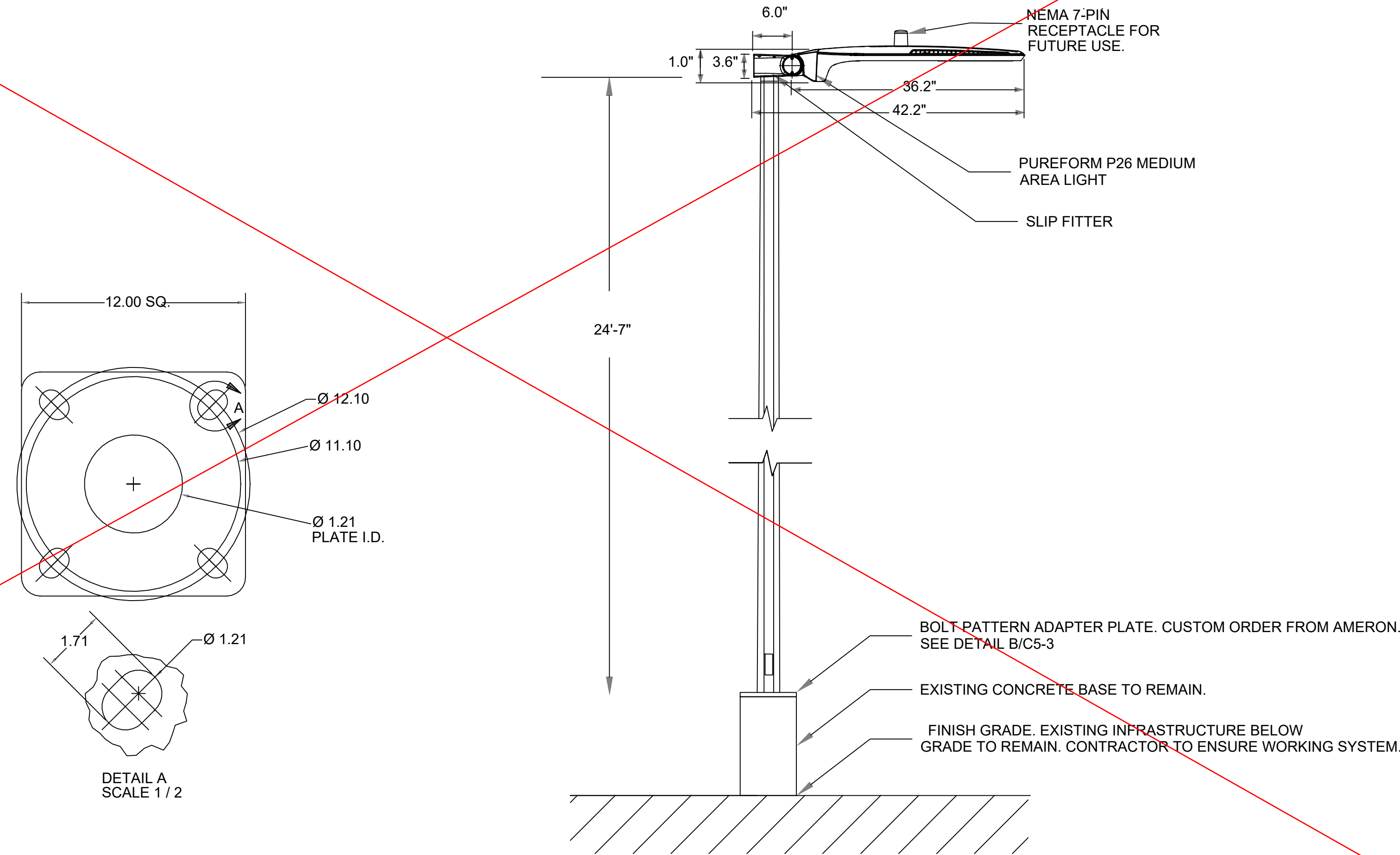
Issue
100%

NO LIGHT POLE REMOVAL OR REINSTALLATION NECESSARY FOR GRANT CHAMBERLAIN

- LIGHTING**
- 1 B01 IDENTIFICATION
 - a B01: LUMINAIRE TYPE
 - 1: SWITCH/ZONE
 - 1: CIRCUIT NUMBER
 - FILLED LUMINAIRE INDICATED EMERGENCY OPERATION
 - SURFACE MOUNTED LUMINAIRE
 - RECESSED LUMINAIRE
 - WALL WASH LUMINAIRE
 - ARROW INDICATED ORIENTATION
 - WALL MOUNTED LUMINAIRE
 - *XX* INDICATES MOUNTING HEIGHT TO CENTER
 - SUSPENDED LUMINAIRE
 - POLE MOUNTED LUMINAIRE WITH ARM
 - POST MOUNTED LUMINAIRE
 - GROUND/FLOOR MOUNTED LUMINAIRE
 - TRACK LUMINAIRE SYSTEM (LENGTH, HEAD TYPES, & QUANTITIES AS INDICATED ON PLANS & SCHEDULES)
 - EXIT SIGN - ARROWS & FACES AS INDICATED ON PLANS
- ORIENTATION**
- HORIZONTAL ZERO LINE INDICATED HOTLINE ZERO DRAWN FROM CENTER
 - DIRECTIONAL ARROW INDICATED PRIMARY LUMEN ORIENTATION
 - DIRECTIONAL AIMING LINE

Type	Description	Manufacturer	Catalog Number	Source	CRI	CCT	Voltage	Load	Luminous Flux	Efficacy	Dim	Life Expectancy	Mounting	Finish	Notes
B01	STREET/PARKING ENTRY LUMINAIRE	GARDCO	P26-64L-600-WW(80CRI)-G2-SF-2-277-FAWS-TLRD7-F1-BZ // PTF2-P26/34-1-90-(F)	LED	80	3000K	277 V	167 VA	14493 lm	127 lm/W	FAWS	100,000	EXISTING POLE	BRONZE	2
B02	PARKING LOT LUMINAIRE	GARDCO	P26-80L-700-WW(80CRI)-G2-SF-5W-277-FAWS-TLRD7-F1 // PTF2-P26/34-1-90-(F)	LED	80	3000K	277 V	169 VA	21363 lm	127 lm/W	FAWS	100,000	25' NEW POLE	BRONZE	1

NOTES:
1. PROVIDE & INSTALL NEW AMERON #MEO-7.5 POLE AND CUSTOM BOLT PATTERN ADAPTER PROVIDED BY AMERON. REFER TO DETAIL 1/EL0.01
2. EXISTING POLE TO REMAIN.



1 AMERON CUSTOM BOLT PATTERN ADAPTER
EL0.01 NTS

2 AMERON POLE MOUNTING DETAIL
EL0.01 NTS

A MODULUS LIGHT POLE DETAIL
C5-5 NTS



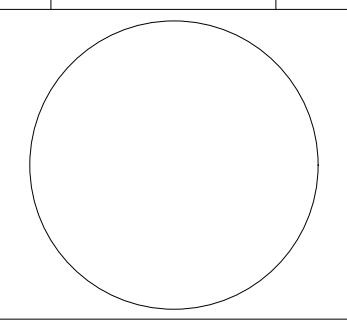
MSU-CPDC
MONTANA STATE UNIVERSITY
BOZEMAN, MONTANA
PHONE: 406.994.5413
FAX: 406.994.5665

PARKING IMPROVEMENTS
2025



DRAWN BY: L. OTTEY
REVIEWED BY: K. GAUTHIER

REV.	DESCRIPTION	DATE



PPA#22-0012

DETAILS 5

SHEET
C5-5

DATE
05-09-23

NOT TO SCALE - SEE PLAN FOR DIMENSIONS AND NOTES. SEE PLAN FOR DIMENSIONS AND NOTES. SEE PLAN FOR DIMENSIONS AND NOTES.