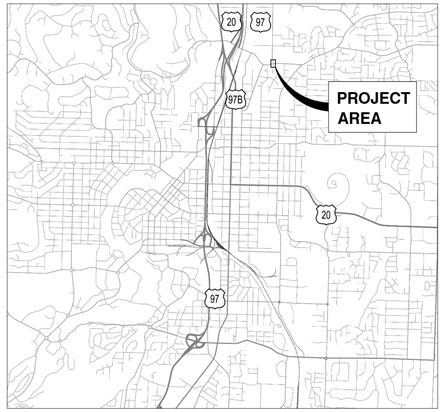


VICINITY MAP

SCALE: N.T.S.

CITY OF BEND

BEND BIKEWAYS
BUTLER MARKET/BOYD ACRES INTERSECTION IMPROVEMENTS

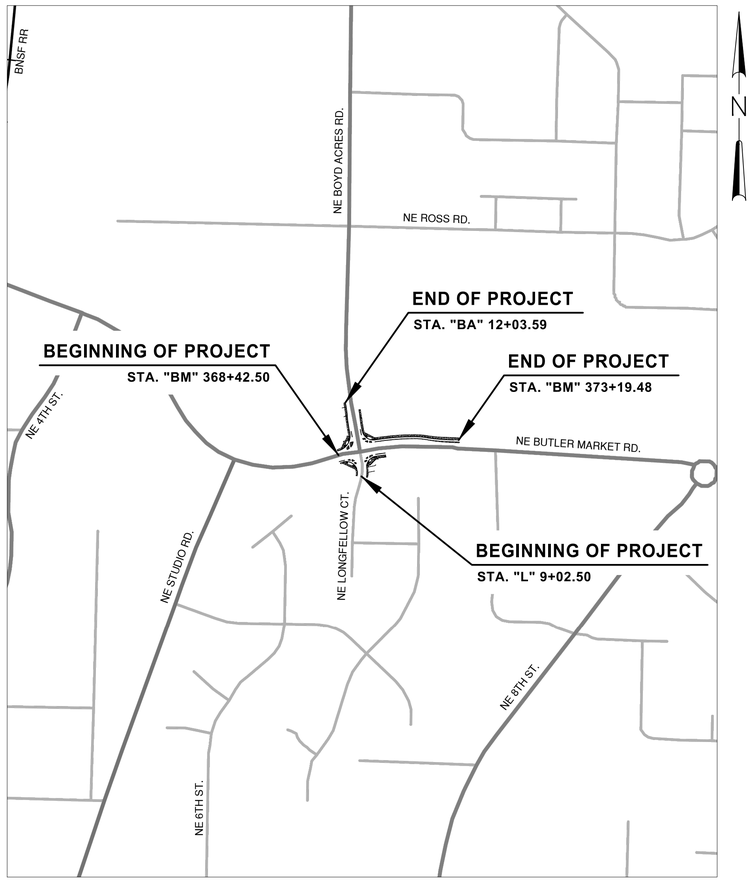
JULY 2026

CITY PROJECT NO. 1TBKE

CITY OF BEND, DESCHUTES COUNTY, OREGON

OWNER:

CITY OF BEND
710 NW WALL ST.
BEND, OR 97702
PHONE: (541) 388-5570



SITE PLAN

SCALE: 1" = 300'

LEGEND:

	BENCHMARK (FOUND)		BANK (BOTTOM)
	BENCHMARK (SET)		BANK (TOP
CB	CATCH BASIN		CABLE TV CATV
CO	CLEANOUT		CANAL
	CONCRETE		CENTERLINE
	CONIFEROUS TREE		DITCH (CENTER)
		EC	EDGE OF CONCRETE EC
		EG	EDGE OF GRAVEL EG
	CONTROL MON	EP	EDGE OF PAVEMENT EP
	CULVERT		EASEMENT
		X	FENCE (OTHER) X
	DECIDUOUS TREE		FENCE (SILT)
			FENCE (STEEL)
			FENCE (WOOD)
DW	DITCH INLET	FO	FIBER OPTICS FO
DW	DRYWELL	FM	FORCE MAIN FM
GM	GAS METER		GAS G
GV	GAS VALVE	GB	GRADE BREAK GB
	GRAVEL	GR	GUARDRAIL GR
	GUY WIRE	IRR	IRRIGATION IRR
	HANDICAP	JB	JERSEY BARRIER JB
			PAVEMENT REPAIR
	MAILBOX		PROPERTY BOUNDARY
	MONUMENT (FOUND)		PROPERTY SETBACKS
	MONUMENT (SET)	P	POWER P
	RAILROAD CROSSING ARM	OH	POWER (OVERHEAD) OH
	SANITARY MANHOLE		RAILROAD
	SIDEWALK		RIVER
	SIGN	SS	SANITARY SEWER SS
	STORM MANHOLE	SD	STORM DRAIN SD
	TELEPHONE RISER		STRIPING
	TELEPHONE MANHOLE		TELEPHONE T
	TRAFFIC SIGNAL CONTROL BOX	W	WATER W
	TRAFFIC SIGNAL W/ MAST ARM		
	UTILITY POLE		TREE TO BE REMOVED
	UTILITY POLE/LIGHT		
	UTILITY VAULT W/ MANHOLE		PROPOSED CONCRETE PAVEMENT
	WATER AIR RELEASE VALVE		
	WATER BELL JOINT		
	WATER BLIND FLANGE		PROPOSED ASPHALT PAVEMENT
BO	WATER BLOW OFF VALVE		
	WATER BUTTERFLY VALVE		PROPOSED SLOPE LINE (CUT)
	WATER CHECK VALVE		
	WATER COMBINATION AIR RELEASE VALVE		PROPOSED SLOPE LINE (FILL)
	WATER DOUBLE DETECTOR CHECK VALVE		
	WATER FIRE DEPT CONNECTION		
	WATER FIRE HYDRANT		
	WATER FLANGED GATE VALVE		
	WATER FLANGED BY MECHANICAL JOINT GATE VALVE		
	WATER GATE VALVE		
	WATER MECHANICAL JOINT		
WM	WATER METER		
	WATER PRESSURE REDUCING VALVE		
	WATER PRESSURE REGULATOR/SUSTAINING		
	WATER PRESSURE RELIEF VALVE		
	WATER RESTRAINED MECHANICAL JOINT		
	WATER SAMPLE STATION		
	WATER SINGLE DETECTOR CHECK VALVE		
	WATER THRUST BLOCK (STRADDLE)		
	WATER THRUST BLOCK		

FADED BLACK FEATURES ARE EXISTING (EXCEPT FOR FOUND MONUMENTS)

APPROVALS:

CITY OF BEND ENGINEER:_____

NOTE: SIGNATURE DOES NOT GRANT APPROVAL TO COMMENCE CONSTRUCTION.

SHEET INDEX:

G1	COVER SHEET
G2	CONSTRUCTION NOTES
TC1 THRU TC15	TRAFFIC CONTROL PLANS
TYP1 THRU TYP3	TYPICAL SECTIONS
RD1 THRU RD2	DETAILS
RD3 THRU RD6	CITY OF BEND STD. DWGS.
RD7 THRU RD11	ODOT STD. DWGS.
GR1 THRU GR6	GRADING DETAILS
EC1	EROSION CONTROL PLAN
D1	DEMOLITION PLANS
C1	CIVIL PLANS
SM1	STORM PROFILES
RW1	RETAINING WALL DETAILS
L1	LANDCAPE DETAILS
L2	LANDSCAPE PLAN
ST1 THRU ST2	SIGNING AND STRIPING PLANS
TS1 THRU TS5	TRAFFIC SIGNAL PLANS

Oregon 811 UTILITY NOTIFICATION CENTER

REGISTERED PROFESSIONAL ENGINEER 88394PE
OREGON SEPT. 11, 2018 CONOR R. COST I GAN
EXPIRES: 12/31/2027

BEND BIKEWAYS NO. 1TBKE
BUTLER MARKET/BOYD ACRES INTERSECTION IMPROVEMENTS
COVER SHEET
CITY OF BEND DESCHUTES COUNTY, OREGON

REVISIONS:

DAVID EVANS AND ASSOCIATES INC.
2843 NW Lolo Dr., Suite 275
Bend, Oregon 97703
Phone: 541.389.7614

DESIGNED BY: CRCO
DRAWN BY: CRCO
SCALE: AS SHOWN
FILE: X1 GENERAL-BNDX00000132.DWG
DATE: 6/19/26

VERIFY SCALES
0 1"
BAR EQUALS ONE INCH ON ORIGINAL DRAWING

SHEET: G1

COB # 1TBKE

P:\B\BNDX00000132\0400CAD\SHEETS\RH\BUTLER-BOYD\X1.GENERAL-BNDX00000132.DWG

CONSTRUCTION NOTES:

1. CONTRACTOR SHALL VERIFY ALL CONDITIONS ON THE JOB SITE INCLUDING BUT NOT LIMITED TO, ALL DIMENSIONS, GRADES, ELEVATIONS, EXTENT AND COMPATIBILITY TO THE EXISTING SITE CONDITIONS, AND WITH THE WORK DESCRIBED ON THE ENGINEER'S DRAWINGS. ANY DISCREPANCIES OR UNEXPECTED CONDITIONS THAT AFFECT OR CHANGE THE WORK DESCRIBED IN THE CONTRACT DOCUMENTS SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION IMMEDIATELY. CONTRACTOR SHALL NOT PROCEED WITH ANY OF THE WORK IN THE AREA OF DISCREPANCIES UNTIL ALL SUCH DISCREPANCIES ARE RESOLVED. IF THE CONTRACTOR CHOOSES TO DO SO, THEN IT IS UNDERSTOOD THAT THE CONTRACTOR IS CHOOSING TO PROCEED AT THE CONTRACTOR'S OWN RISK AND SHALL INCUR ALL COSTS, IF ANY TO RESOLVE THE ISSUES TO THE SATISFACTION OF THE ENGINEER.

2. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT "UNDERGROUND LOCATE SERVICE" AT 1-800-332-2344 AT LEAST 48 BUSINESS-DAY HOURS PRIOR TO THE START OF CONSTRUCTION FOR THE LOCATION OF POWER, GAS, CABLE TV AND TELEPHONE UNDERGROUND FACILITIES. THE CONTRACTOR WILL ALSO BE RESPONSIBLE FOR CONTACTING THE APPROPRIATE PUBLIC AGENCY FOR THE LOCATION OF UNDERGROUND FACILITIES.

3. ALL UTILITIES SHOWN ARE ACCURATE TO THE EXTENT OF AVAILABLE RECORDS AND KNOWLEDGE. NO POTHOLING TO VERIFY LOCATIONS AND ELEVATIONS HAS BEEN PERFORMED. THE CONTRACTOR HAS THE TOTAL RESPONSIBILITY TO VERIFY THE LOCATION OF EXISTING UNDERGROUND UTILITIES AND TO NOTIFY THE UTILITY COMPANIES WHEN WORKING IN THEIR PROXIMITY. CONTRACTOR TO VERIFY LOCATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION. OREGON LAW REQUIRES YOU TO FOLLOW RULES ADOPTED BY THE OREGON UTILITY NOTIFICATION CENTER. THOSE RULES ARE SET FORTH IN OAR 952-001-0010 THROUGH 952-001-0090. YOU MAY OBTAIN COPIES OF THE RULES BY CALLING THE CENTER. THE TELEPHONE NUMBER FOR THE OREGON UTILITY NOTIFICATION CENTER IS (503)232-2987.

4. ALL GRADING SHALL BE IN CONFORMANCE WITH THE CURRENT CITY STANDARDS AND SPECIFICATIONS AND CURRENT GRADING ORDINANCE. ALL SUBGRADE MATERIAL SHALL BE CONSIDERED CLASS A.

5. ALL FINAL CUT SLOPES SHALL NOT EXCEED A GRADE OF 2 HORIZONTAL TO 1 VERTICAL UNLESS OTHERWISE NOTED OR APPROVED BY THE ENGINEER. FILL SLOPES SHALL NOT EXCEED A GRADE OF 2 HORIZONTAL TO 1 VERTICAL UNLESS OTHERWISE APPROVED BY THE ENGINEER.

6. ALL UNSUITABLE SOILS MATERIALS, RUBBISH AND DEBRIS RESULTING FROM GRADING OPERATIONS SHALL BE REMOVED FROM THE JOB SITE AND DISPOSED OF PROPERLY.

7. THE CONTRACTOR SHALL EMPLOY ALL LABOR, EQUIPMENT, AND METHODS REQUIRED TO PREVENT DUST IN AMOUNTS DAMAGING TO PROPERTY, CULTIVATED VEGETATION AND DOMESTIC ANIMALS OR CAUSING A NUISANCE TO PERSONS OCCUPYING BUILDINGS IN THE VICINITY OF THE JOB SITE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE CAUSED BY DUST RESULTING FROM CONSTRUCTION.

8. THE CONTRACTOR SHALL FOLLOW ALL APPLICABLE INDUSTRIAL SAFETY REGULATIONS. THE CITY AND DESCHUTES COUNTY AND THEIR OFFICIALS, THE ENGINEER, AND THE OWNER SHALL NOT BE RESPONSIBLE FOR ENFORCING SAFETY REGULATIONS.

9. ALL WORK SHALL BE PERFORMED BY A CITY APPROVED CONTRACTOR.

10. WHEN PERFORMING UNDERGROUND UTILITY WORK THAT CROSSES THE ROADWAY, COMPLETE ALL WORK AND PROTECT PUBLIC TRAFFIC AS SHOWN OR AS DIRECTED. FOR ROADWAYS WITH A PRE-CONSTRUCTION POSTED SPEED OF 35 MPH OR LESS, STEEL PLATING SECURED TO THE ROADWAY MAY BE USED TO COVER OPEN EXCAVATIONS. WHEN PIPE BACKFILL CANNOT BE ACHIEVED BY THE END OF A WORK SHIFT AND TEMPORARY PLATING IS NOT IN PLACE ACCORDING TO 00405.46(E), PROVIDE ADDITIONAL TEMPORARY TRAFFIC CONTROL MEASURES AS REQUIRED BY THE ENGINEER AND AT NO ADDITIONAL COST TO THE AGENCY. WHEN NECESSARY, TRAFFIC LANES MAY BE CLOSED TO COMPLETE UNDERGROUND UTILITY WORK ACCORDING TO 00220.40.

EROSION CONTROL AND STORMWATER POLLUTION PREVENTION GENERAL NOTES:

1. THE EROSION AND SEDIMENT CONTROL (ESC) PLAN MUST BE KEPT ONSITE AT ALL TIMES WHEN WORK IS OCCURRING.

2. THE ESC MEASURES SHOWN ON THIS PLAN ARE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD, THE MEASURES MUST BE UPGRADED AS NEEDED TO COMPLY WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL EROSION AND SEDIMENT CONTROL REGULATIONS.

3. THE FOLLOWING CONSTRUCTION SEQUENCE SHALL BE FOLLOWED IN ORDER TO BEST MINIMIZE THE POTENTIAL FOR EROSION AND SEDIMENTATION CONTROL PROBLEMS:
   a. FENCE OR FLAG AREAS TO BE PROTECTED OR LEFT UNDISTURBED DURING CONSTRUCTION;
   b. INSTALL GRAVELED OR PAVED CONSTRUCTION ENTRANCES, EXITS, AND PARKING AREAS TO REDUCE THE TRACKING OF SEDIMENT ONTO PUBLIC OR PRIVATE ROADS;
   c. CLEAR AND GRUB SUFFICIENTLY FOR INSTALLATION OF TEMPORARY ESC BMPS;
   d. INSTALL TEMPORARY ESC BMPS, CONSTRUCTING SEDIMENT TRAPPING BMPS AS ONE OF THE FIRST STEPS PRIOR TO GRADING;
   e. CLEAR, GRUB AND ROUGH GRADE FOR ROADS AND UTILITY LOCATIONS;
   f. CLEAR, GRUB AND GRADE INDIVIDUAL LOTS OR GROUPS OF LOTS;
   g. TEMPORARILY STABILIZE, THROUGH RE-VEGETATION OR OTHER APPROPRIATE BMPS, LOTS OR GROUPS OF LOTS IN SITUATIONS WHERE SUBSTANTIAL CUT OR FILL SLOPES ARE A RESULT OF THE SITE GRADING;
   h. CONSTRUCT ROADS, BUILDINGS, PERMANENT STORMWATER FACILITIES (I.E. INLETS, PONDS, UIC FACILITIES, ETC.);
   i. PROTECT ALL PERMANENT STORMWATER FACILITIES UTILIZING THE APPROPRIATE BMPS;
   j. REMOVE TEMPORARY ESC CONTROLS WHEN PERMANENT STORMWATER FACILITIES HAVE BEEN INSTALLED, ALL LAND-DISTURBING ACTIVITIES HAVE CEASED, AND VEGETATION HAS BEEN ESTABLISHED IN THE AREAS NOTED ON THE ACCEPTED ESC PLAN.

4. RETAIN THE DUFF LAYER, NATIVE TOPSOIL, AND NATURAL VEGETATION IN AN UNDISTURBED STATE TO THE MAXIMUM EXTENT AND DURATION PRACTICAL.

5. INSPECT ALL ROADWAYS ADJACENT TO THE CONSTRUCTION ACCESS ROUTE AT THE END OF EACH DAY. SIGNIFICANT AMOUNTS OF SEDIMENT THAT LEAVES THE CONSTRUCTION SITE MUST BE CLEANED UP WITHIN 24 HOURS AND STABILIZED BACK ON THE SITE OR PROPERLY DISPOSED. THE CAUSE OF SEDIMENT RELEASE MUST BE IDENTIFIED AND PREVENTED FROM CAUSING A RECURRENCE OF THE DISCHARGE WITHIN THE SAME 24 HOURS. VACUUMING OR DRY SWEEPING MUST BE USED TO CLEAN UP RELEASED SEDIMENT AND SEDIMENT MUST NOT BE INTENTIONALLY WASHED INTO STORM SEWERS, DRAINAGE WAYS, OR WATER BODIES.

6. RESTORE CONSTRUCTION ACCESS ROUTE EQUAL TO OR BETTER THAN THE PRE-CONSTRUCTION CONDITION. CONTROL FUGITIVE DUST FROM CONSTRUCTION ACTIVITY.

7. STABILIZE EXPOSED UNWORKED SOILS (INCLUDING STOCKPILES), WHETHER AT FINAL GRADE OR NOT, WITHIN 10 CALENDAR DAYS DURING THE REGIONAL DRY SEASON (JULY 1 THROUGH SEPTEMBER 30) AND WITHIN 5 CALENDAR DAYS DURING THE REGIONAL WET SEASON (OCTOBER 1 THROUGH JUNE 30).

8. PROTECT INLETS, DRYWELLS, CATCH BASINS AND OTHER STORMWATER MANAGEMENT FACILITIES FROM SEDIMENT, WHETHER OR NOT FACILITIES ARE OPERABLE.

9. KEEP ROADS ADJACENT TO INLETS CLEAN.

10. INSPECT INLETS WEEKLY AT A MINIMUM AND DAILY DURING STORM EVENTS. CLEAN OR REMOVE AND REPLACE INLET PROTECTION DEVICES BEFORE SIX INCHES OF SEDIMENT CAN ACCUMULATE.

11. INSTALL SEDIMENT CONTROLS ALONG THE SITE PERIMETER ON ALL DOWN GRADIENT SIDES OF THE CONSTRUCTION SITE BEFORE COMMENCING EARTH DISTURBING ACTIVITIES.

12. WHENEVER POSSIBLE, CONSTRUCT STORMWATER CONTROL FACILITIES (DETENTION/RETENTION STORAGE POND OR SWALES) BEFORE GRADING BEGINS. THESE FACILITIES SHOULD BE OPERATIONAL BEFORE THE CONSTRUCTION OF IMPERVIOUS SITE IMPROVEMENTS.

13. STOCKPILE MATERIALS (SUCH AS TOPSOIL) ONSITE, KEEPING OFF OF ROADWAY AND SIDEWALKS.

14. COVER, CONTAIN AND PROTECT ALL CHEMICALS, LIQUID PRODUCTS, PETROLEUM PRODUCT, AND NON-INERT WASTES PRESENT ONSITE FROM VANDALISM. MAINTAIN A SUPPLY OF MATERIALS ON HAND TO ADDRESS AND CONTAIN SPILLS.

15. LOCATE DESIGNATED VEHICLE AND EQUIPMENT SERVICE AREAS, FUEL, AND MATERIALS AWAY FROM DRAINAGE INLETS, WATERCOURSES, AND CANALS. PROPERLY CONTAIN AREAS USING BERMS, SANDBAGS, OR OTHER BARRIERS.

16. REGULARLY INSPECT AND MAINTAIN EQUIPMENT, ESPECIALLY FOR DAMAGED HOSES AND LEAKY GASKETS. CONDUCT MAINTENANCE AND REPAIR OF HEAVY EQUIPMENT AND VEHICLES (I.E. OIL CHANGES, FUEL TANK DRAIN DOWN, ETC) THAT MAY RESULT IN DISCHARGE OR SPILLAGE OF POLLUTANTS USING SPILL PREVENTION MEASURES, SUCH AS DRIP PANS. CLEAN ALL CONTAMINATED SURFACES IMMEDIATELY FOLLOWING ANY DISCHARGE OR SPILL INCIDENT. PERFORM REPAIRS ONSITE USING TEMPORARY PLASTIC OR OIL ABSORBING BLANKETS BENEATH THE VEHICLE.

17. APPLY LANDSCAPING OR AGRICULTURAL CHEMICALS, INCLUDING FERTILIZERS AND PESTICIDES, IN SUCH A MANNER, AND AT APPLICATION RATES, THAT INHIBITS THE LOSS OF CHEMICALS INTO STORMWATER RUNOFF FACILITIES.

18. INSPECT ON A REGULAR BASIS (AT A MINIMUM WEEKLY, AND DAILY DURING/AFTER A RUNOFF PRODUCING STORM EVENT) AND MAINTAIN ALL EROSION AND SEDIMENT CONTROL BMPS TO ENSURE SUCCESSFUL PERFORMANCE OF THE BMPS.

19. REMOVE TEMPORARY ESC BMPS WITHIN 30 DAYS AFTER THE TEMPORARY BMPS ARE NO LONGER NEEDED. PERMANENTLY STABILIZE AREAS THAT ARE DISTURBED DURING THE REMOVAL PROCESS.

BASIS OF BEARINGS AND ELEVATIONS

COORDINATES FOR THESE PLANS ARE BASED ON THE CENTRAL OREGON COORDINATE SYSTEM (COCS). ADJUSTED TO THE RECORD OF SURVEY PREPARED BY S&F LAND SERVICES (CS21474) HOLDING PUBLISHED COCS VALUES FOR CONTROL POINT (CP) 3 FROM CS21474 EQUAL TO POVEY & ASSOCIATES LAND SURVEYORS (P&A) CP 235.
ELEVATIONS ARE BASED ON THE NGVD 29 ELEVATION DATUM.

P&A PRIMARY CONTROL POINTS				
NO.	NORTHING	EASTING	ELEVATION	DESCRIPTION
235	392,441.57	3,296,863.67	3575.42	FND 1-1/8 INCH COPPER PLUG STAMPED SF LAND SERVICES 3 (#3 CS21474)
257	392,459.13	3,297,155.76	3573.87	FND 5/8 INCH IRON ROD W/ RPC STAMPED S&F LANDS CONTROL (#19 CS21474)

P&A SECONDARY SCAN CONTROL POINTS				
NO.	NORTHING	EASTING	ELEVATION	DESCRIPTION
46	392,376.05	3,296,925.38	3574.56	CP-PK
47	392,372.35	3,296,881.48	3574.72	CP-PK
49	392,468.13	3,296,929.62	3574.29	GCP-SPK

NOTE: BUTLER MARKET / BOYD ACRES INTERSECTION IMPROVEMENTS (POVEY & ASSOCIATES LAND SURVEYORS) AND BUTLER MARKET KEY ROUTE IMPROVEMENTS (S&F LAND SERVICES) ARE BASED ON DIFFERENT SURVEYS.

REGISTERED PROFESSIONAL ENGINEER
87394PE
OREGON
SEPT. 11, 2018
CONOR R. COST I GAN
EXPIRES: 12/31/2027

BEND BIKEWAYS NO. 1TBKE
BUTLER MARKET/BOYD ACRES INTERSECTION IMPROVEMENTS
CONSTRUCTION NOTES
CITY OF BEND — DESCHUTES COUNTY, OREGON

REVISIONS:

DAVID EVANS AND ASSOCIATES INC.
2943 NW Lolo Dr., Suite 275
Bend, Oregon 97703
Phone: 541.389.7614

DESIGNED BY: CRCO
DRAWN BY: CRCO
SCALE: N.T.S.
FILE: X1.GENERAL-BNDX00000132.DWG
DATE: 6/19/26

VERIFY SCALES
0 — 1"
BAR EQUALS ONE INCH ON ORIGINAL DRAWING

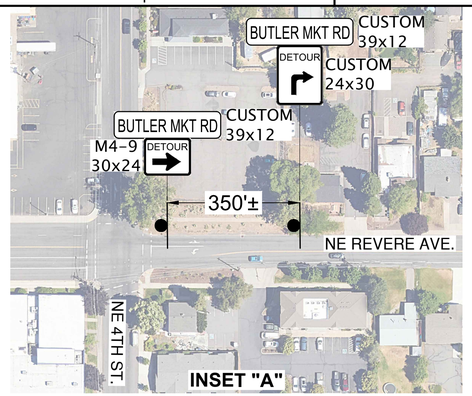
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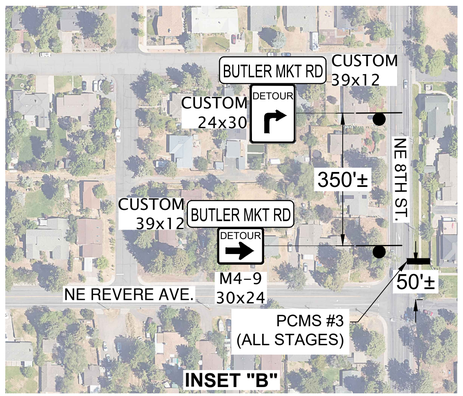
COB # 1TBKE

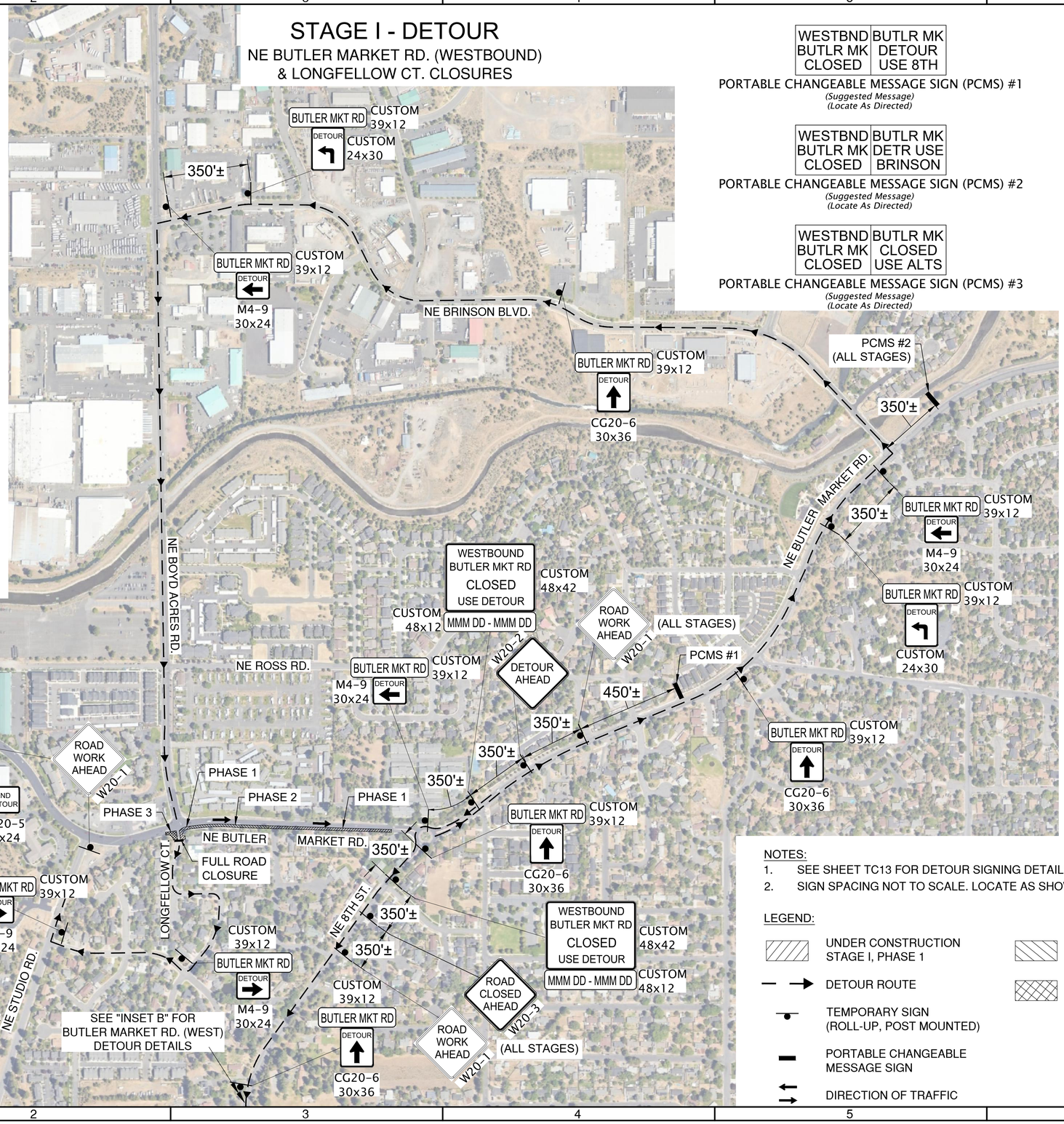
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STAGE I - DETOUR

NE BUTLER MARKET RD. (WESTBOUND) & LONGFELLOW CT. CLOSURES







WESTBND BUTLR MK CLOSED	BUTLR MK DETOUR USE 8TH

PORTABLE CHANGEABLE MESSAGE SIGN (PCMS) #1
(Suggested Message)
(Locate As Directed)

WESTBND BUTLR MK CLOSED	BUTLR MK DETR USE BRINSON

PORTABLE CHANGEABLE MESSAGE SIGN (PCMS) #2
(Suggested Message)
(Locate As Directed)

WESTBND BUTLR MK CLOSED	BUTLR MK CLOSED USE ALTS

PORTABLE CHANGEABLE MESSAGE SIGN (PCMS) #3
(Suggested Message)
(Locate As Directed)

N

0 150' 300' 450'
SCALE: 1" = 300'

NOTES:
1. SEE SHEET TC13 FOR DETOUR SIGNING DETAILS NOT SHOWN.
2. SIGN SPACING NOT TO SCALE. LOCATE AS SHOWN OR AS DIRECTED.

LEGEND:

- UNDER CONSTRUCTION STAGE I, PHASE 1
- UNDER CONSTRUCTION STAGE I, PHASE 2
- DETOUR ROUTE
- UNDER CONSTRUCTION STAGE I, PHASE 3
- TEMPORARY SIGN (ROLL-UP, POST MOUNTED)
- PORTABLE CHANGEABLE MESSAGE SIGN
- DIRECTION OF TRAFFIC

REGISTERED PROFESSIONAL ENGINEER
17878
OREGON
JULY 25, 1995
SCOTT M. MCCANNA
EXPIRES:12/31/2026

BEND BIKEWAYS NO. 1TBKE
BUTLER MARKET/BOYD ACRES INTERSECTION IMPROVEMENTS
TRAFFIC CONTROL PLAN

CITY OF BEND — DESCHUTES COUNTY, OREGON

REVISIONS:

DAVID EVANS AND ASSOCIATES INC.
2843 NW Lolo Dr., Suite 275
Bend, Oregon 97703
Phone: 541.389.7614

DESIGNED BY: CRCO
DRAWN BY: CRCO
SCALE: 1" = 20'
FILE: C1.TRAFFIC_CONTROL-BNDX00000132.DWG
DATE: 6/19/26

VERIFY SCALES
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BAR EQUALS ONE INCH ON ORIGINAL DRAWING

SHEET: TC1

COB # 1TBKE

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STAGE II, PHASE 1 - DETOUR

NE BUTLER MARKET RD. (WESTBOUND) CLOSURE

INSET "A"

INSET "B"

NOTES:

1. SEE SHEET TC13 FOR DETOUR SIGNING DETAILS NOT SHOWN.
2. SIGN SPACING NOT TO SCALE. LOCATE AS SHOWN OR AS DIRECTED.

LEGEND:

- UNDER CONSTRUCTION STAGE II, PHASE 1
- TO BE CONSTRUCTED STAGE II, PHASE 2
- DETOUR ROUTE
- TEMPORARY SIGN (ROLL-UP, POST MOUNTED)

SCALE: 1" = 300'

REGISTERED PROFESSIONAL ENGINEER 17878 OREGON JULY 25, 1995 SCOTT M. MCFANNA EXPIRES:12/31/2026

BEND BIKEWAYS NO. 1TBKE
BUTLER MARKET/BOYD ACRES INTERSECTION IMPROVEMENTS
TRAFFIC CONTROL PLAN
CITY OF BEND — DESCHUTES COUNTY, OREGON

REVISIONS:

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Bend, Oregon 97703
Phone: 541.389.7614

DESIGNED BY: SMMC
DRAWN BY: RJXM
SCALE: 1" = 300'
FILE: C2.TRAFFIC_CONTROL-BNDX00000132.DWG
DATE: 6/19/26

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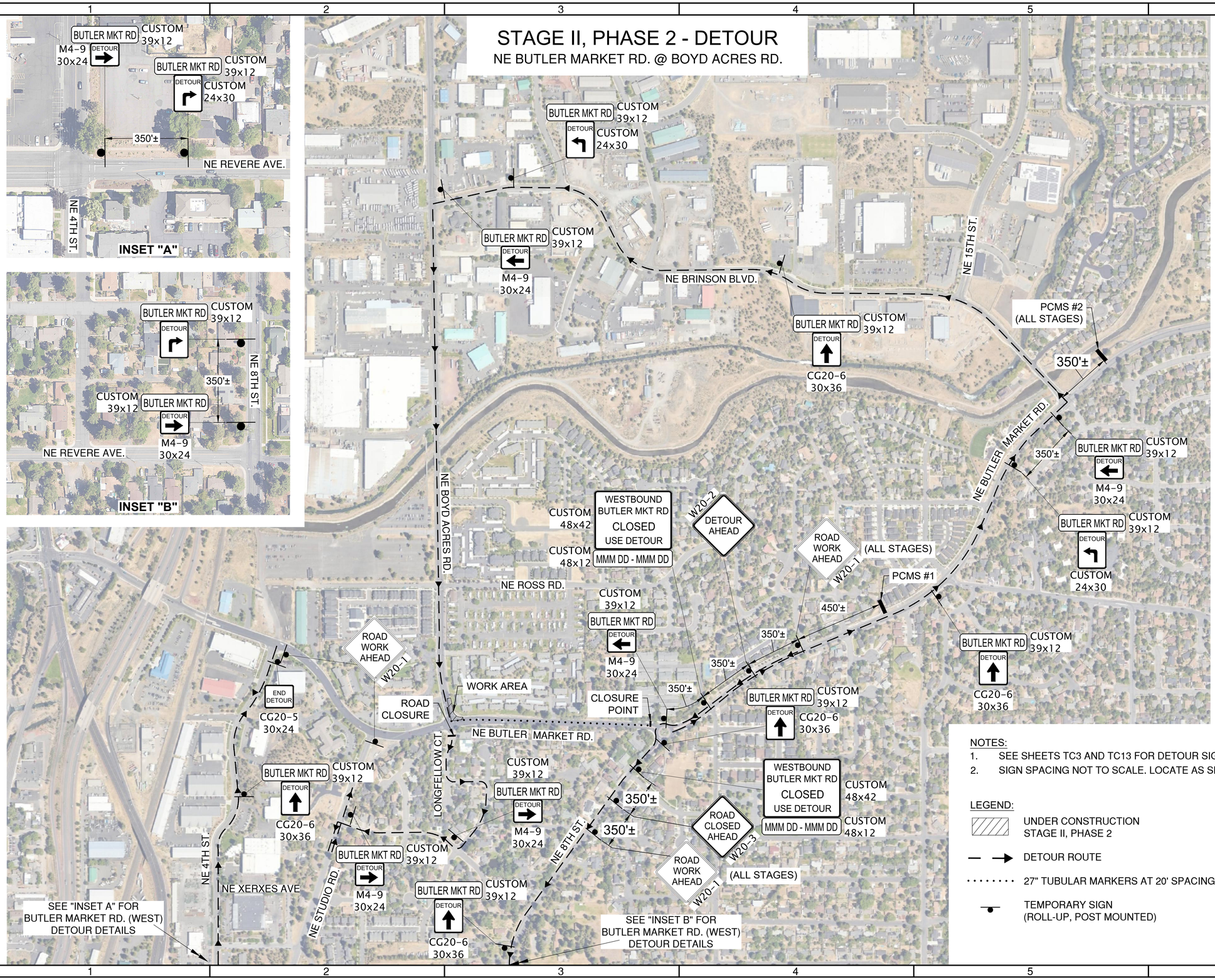
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COB # 1TBKE

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STAGE II, PHASE 2 - DETOUR

NE BUTLER MARKET RD. @ BOYD ACRES RD.



N

0 150' 300' 450'

SCALE: 1" = 300'

NOTES:

1. SEE SHEETS TC3 AND TC13 FOR DETOUR SIGNING DETAILS NOT SHOWN.
2. SIGN SPACING NOT TO SCALE. LOCATE AS SHOWN OR AS DIRECTED.

LEGEND:

- UNDER CONSTRUCTION STAGE II, PHASE 2
- DETOUR ROUTE
- 27" TUBULAR MARKERS AT 20' SPACING
- TEMPORARY SIGN (ROLL-UP, POST MOUNTED)

REGISTERED PROFESSIONAL ENGINEER
17878
OREGON
JULY 25, 1995
SCOTT M. McCANNA
EXPIRES:12/31/2026

BEND BIKEWAYS NO. 1TBKE
BUTLER MARKET/BOYD ACRES
INTERSECTION IMPROVEMENTS
TRAFFIC CONTROL PLAN

CITY OF BEND — DESCHUTES COUNTY, OREGON

REVISIONS:

DAVID EVANS AND ASSOCIATES INC.
2943 NW Lolo Dr., Suite 275
Bend, Oregon 97703
Phone: 541.389.7614

DESIGNED BY: SMMC
DRAWN BY: RJXM
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FILE: C3.TRAFFIC_CONTROL-BNDX00000132.DWG
DATE: 6/19/26

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SHEET: TC3

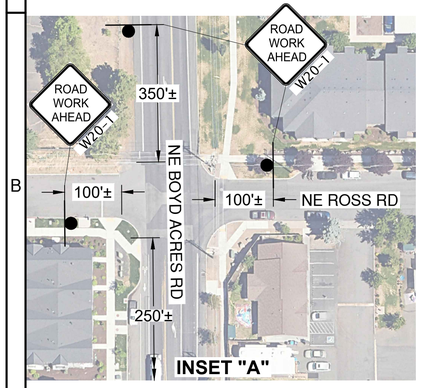
COB # 1TBKE

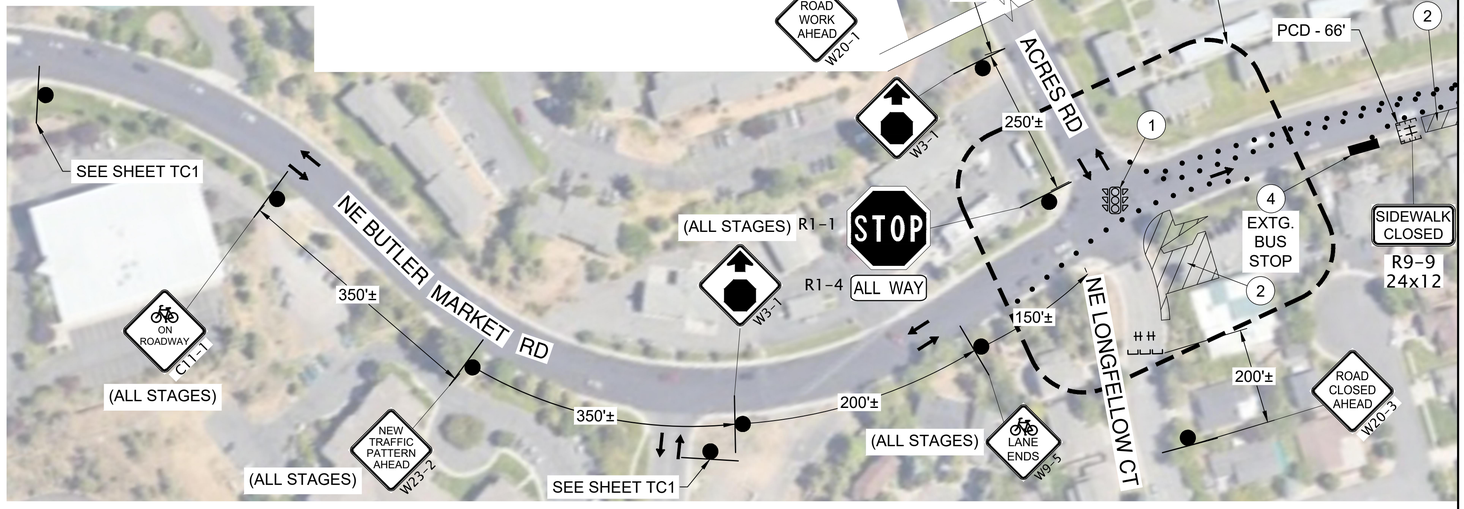
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STAGE I, PHASE 1

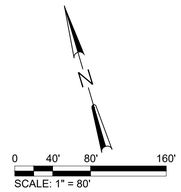
CONSTRUCTION NOTES:

1. TURN OFF EXISTING TRAFFIC SIGNAL DURING STAGE I. PLACE ADDITIONAL INTERSECTION TRAFFIC CONTROL, AS SHOWN OR AS DIRECTED.
2. COMPLETE WORK DURING STAGE I, PHASE 1. DIRECT PEDESTRIAN TRAFFIC AROUND WORK AREAS USING THE TPAR. SEE SHEET TC5 FOR TPAR DETAILS.
3. MAINTAIN MIN. 16-FT WIDTH FOR VEHICLE AND BICYCLE TRAFFIC BETWEEN WORK AREA AND EXTG. CURB
4. MAINTAIN EXISTING BUS STOP AND EXISTING SIGNING DURING STAGE I, PHASE 1.



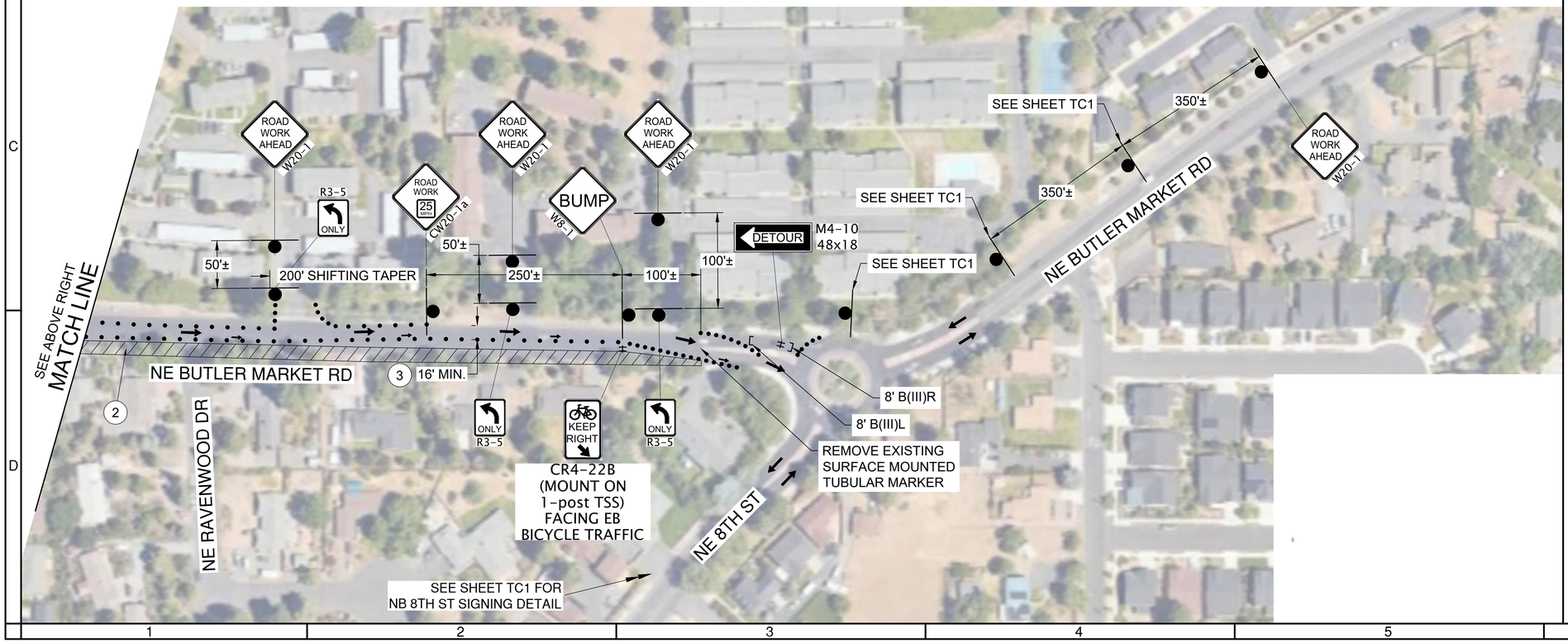


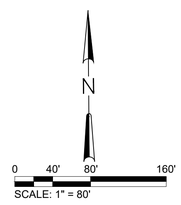
SEE BELOW LEFT MATCH LINE



NOTES:

1. SEE SHEETS TC1 AND TC13 FOR DETOUR SIGNING DETAILS NOT SHOWN.
2. SIGN SPACING NOT TO SCALE. LOCATE AS SHOWN OR AS DIRECTED.
3. CONSTRUCT INTERSECTION SIDE ROAD ACCESSES AND PRIVATE DRIVEWAYS UNDER TRAFFIC. USE FLAGGERS TO CONTROL TRAFFIC.
4. MAINTAIN "NEW TRAFFIC PATTERN AHEAD" SIGNS UNTIL TRAFFIC IS MOVED INTO FINAL PERMANENT CONFIGURATION AND NEW SIGNAL HAS BEEN INSTALLED AND TURNED ON.





LEGEND:

- UNDER CONSTRUCTION STAGE I, PHASE 1
- DIRECTION OF TRAFFIC
- DIRECTION OF BIKE TRAFFIC
- 27" TUBULAR MARKERS AT 20' SPACING
- 27" TUBULAR MARKERS AT 10' SPACING
- TEMPORARY SIGN (ROLL-UP, POST MOUNTED)
- TEMPORARY BARRICADE
- SIGN MOUNTED ON TEMP. SIGN SUPPORT (TSS)
- PEDESTRAIN CHANNELIZING DEVICE (PCD)
- EXISTING SIGNAL

REGISTERED PROFESSIONAL ENGINEER 17878 OREGON JULY 25, 1995 SCOTT M. MCFANNA EXPIRES:12/31/2026

BEND BIKEWAYS NO. 1TBKE
BUTLER MARKET/BOYD ACRES INTERSECTION IMPROVEMENTS
TRAFFIC CONTROL PLAN
CITY OF BEND — DESCHUTES COUNTY, OREGON

REVISIONS:

DAVID EVANS AND ASSOCIATES INC.
2843 NW Lolo Dr., Suite 275
Bend, Oregon 97703
Phone: 541.389.7614

DESIGNED BY: SMMC
DRAWN BY: RJXM
SCALE: 1" = 80'
FILE: C4.TRAFFIC_CONTROL-BNDX00000132.DWG
DATE: 6/19/26

VERIFY SCALES
0 1"
BAR EQUALS ONE INCH ON ORIGINAL DRAWING

SHEET: TC4

COB # 1TBKE

P:\B\BNDX00000132\0400CAD\SHEETS\TT\BUTLER-BOYD\C4.TRAFFIC_CONTROL-BNDX00000132.DWG

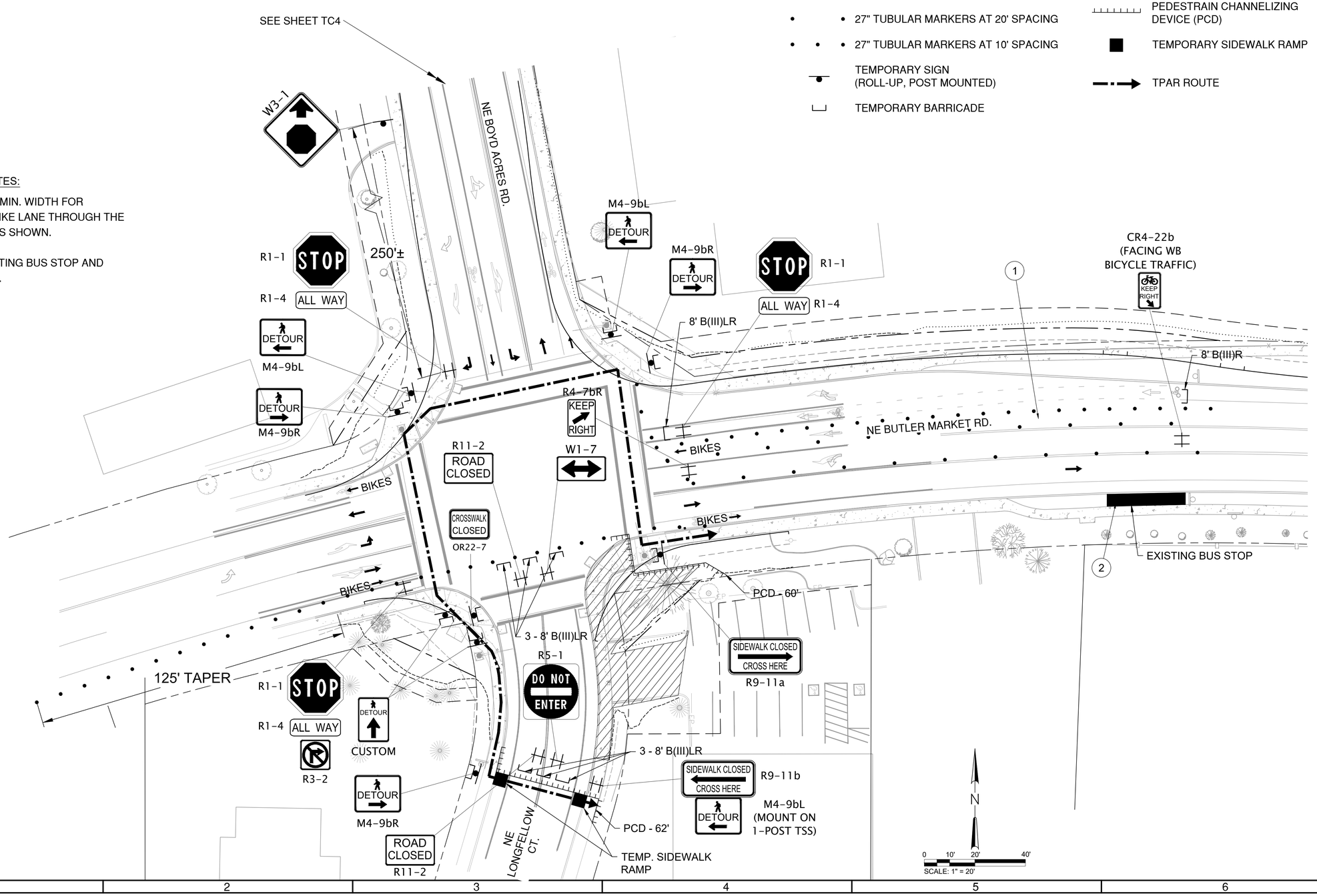
STAGE I, PHASE 1

LEGEND:

- UNDER CONSTRUCTION STAGE I, PHASE 1
- DIRECTION OF TRAFFIC
- BIKES → DIRECTION OF BIKE TRAFFIC
- 27" TUBULAR MARKERS AT 20' SPACING
- 27" TUBULAR MARKERS AT 10' SPACING
- TEMPORARY SIGN (ROLL-UP, POST MOUNTED)
- TEMPORARY BARRICADE
- SIGN MOUNTED ON TEMPORARY SIGN SUPPORT (TSS)
- TEMPORARY SIGN MOUNTED ON TYPE II BARRICADE
- PEDESTRAIN CHANNELIZING DEVICE (PCD)
- TEMPORARY SIDEWALK RAMP
- TPAR ROUTE

CONSTRUCTION NOTES:

1. MAINTAIN 4-FT MIN. WIDTH FOR TEMPORARY BIKE LANE THROUGH THE WORK AREA, AS SHOWN.
2. MAINTAIN EXISTING BUS STOP AND EXISTING SIGN.



REGISTERED PROFESSIONAL ENGINEER
17878
OREGON
JULY 25, 1995
SCOTT M. McCANNA
EXPIRES:12/31/2026

BEND BIKEWAYS NO. 1TBKE
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INTERSECTION IMPROVEMENTS
TRAFFIC CONTROL PLAN
CITY OF BEND
DESCHUTES COUNTY, OREGON

REVISIONS:

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2843 NW Lolo Dr., Suite 275
Bend, Oregon 97703
Phone: 541.389.7614

DESIGNED BY: SMMC
DRAWN BY: RJXM
SCALE: 1" = 20'
FILE: C5.TRAFFIC_CONTROL-BNDX00000132.DWG
DATE: 6/19/26

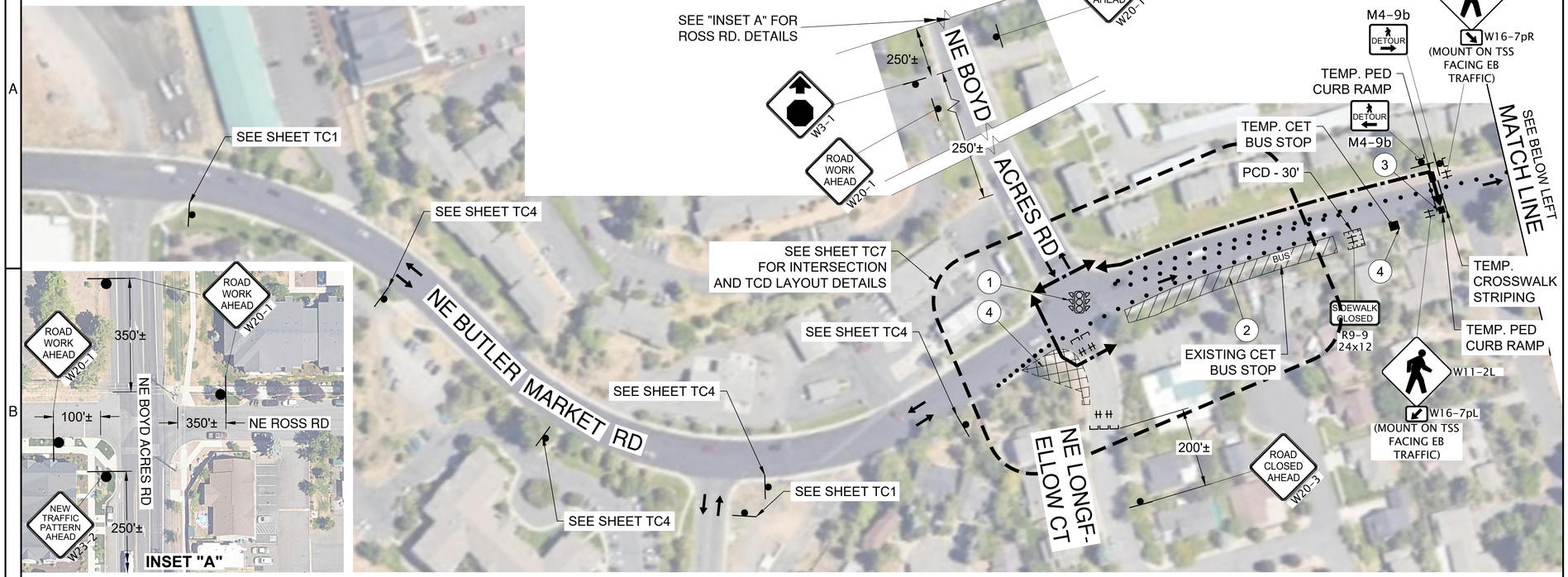
VERIFY SCALES
0 1"
BAR EQUALS ONE INCH ON ORIGINAL DRAWING

SHEET:
TC5

COB # 1TBKE

P:\BNDX0000132\0400CAD\SHEETS\TT\BUTLER-BOYD\C5.TRAFFIC_CONTROL-BNDX00000132.DWG

STAGE I, PHASE 2



NOTES:

1. SEE SHEETS TC1 AND TC13 FOR DETOUR SIGNING DETAILS NOT SHOWN.
2. SIGN SPACING NOT TO SCALE. LOCATE AS SHOWN OR AS DIRECTED.
3. CONSTRUCT INTERSECTION SIDE ROAD ACCESSES AND PRIVATE DRIVEWAYS UNDER TRAFFIC. USE FLAGGERS TO CONTROL TRAFFIC.

CONSTRUCTION NOTES:

1. TURN OFF EXISTING TRAFFIC SIGNAL DURING STAGE I. PLACE ADDITIONAL INTERSECTION TRAFFIC CONTROL, AS SHOWN OR AS DIRECTED.
2. COMPLETE WORK DURING STAGE I, PHASE 2.
3. DIRECT PEDESTRIAN TRAFFIC AROUND WORK AREAS USING THE TPAR, AS SHOWN
4. COMPLETE WORK DURING STAGE I, PHASE 3. DIRECT PEDESTRIAN TRAFFIC AROUND WORK AREAS USING THE TPAR, AS SHOWN. SEE SHEET TC8 FOR DETAILS.

N

0 40' 80' 160'
SCALE: 1" = 80'

LEGEND:

- UNDER CONSTRUCTION STAGE I, PHASE 3
- UNDER CONSTRUCTION STAGE I, PHASE 2
- DIRECTION OF TRAFFIC
- 27" TUBULAR MARKERS AT 20' SPACING
- 27" TUBULAR MARKERS AT 10' SPACING
- TEMPORARY SIGN MOUNTED ON TYPE II BARRICADE
- TEMPORARY SIGN (ROLL-UP, POST MOUNTED)
- TEMPORARY BARRICADE
- SIGN MOUNTED ON TEMPORARY SIGN SUPPORT (TSS)
- PEDESTRAIN CHANNELIZING DEVICE (PCD)
- TEMPORARY PEDESTRIAN ACCESIBILITY ROUTE (TPAR)
- EXISTING SIGNAL

REGISTERED PROFESSIONAL ENGINEER 17878 OREGON JULY 25, 1995 SCOTT M. McCANNA EXPIRES:12/31/2026

BEND BIKEWAYS NO. 1TBKE
BUTLER MARKET/BOYD ACRES INTERSECTION IMPROVEMENTS
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Phone: 541.389.7614

DESIGNED BY: SMMC
DRAWN BY: RJXM
SCALE: 1" = 80'
FILE: C6.TRAFFIC_CONTROL-BNDX00000132.DWG
DATE: 6/19/26

VERIFY SCALES
0 1"
BAR EQUALS ONE INCH ON ORIGINAL DRAWING

SHEET: TC6

COB # 1TBKE

P:\B\BNDX00000132\0400CAD\SHEETS\TT\BUTLER-BOYD\C6.TRAFFIC_CONTROL-BNDX00000132.DWG

STAGE I, PHASE 2

CONSTRUCTION NOTES:

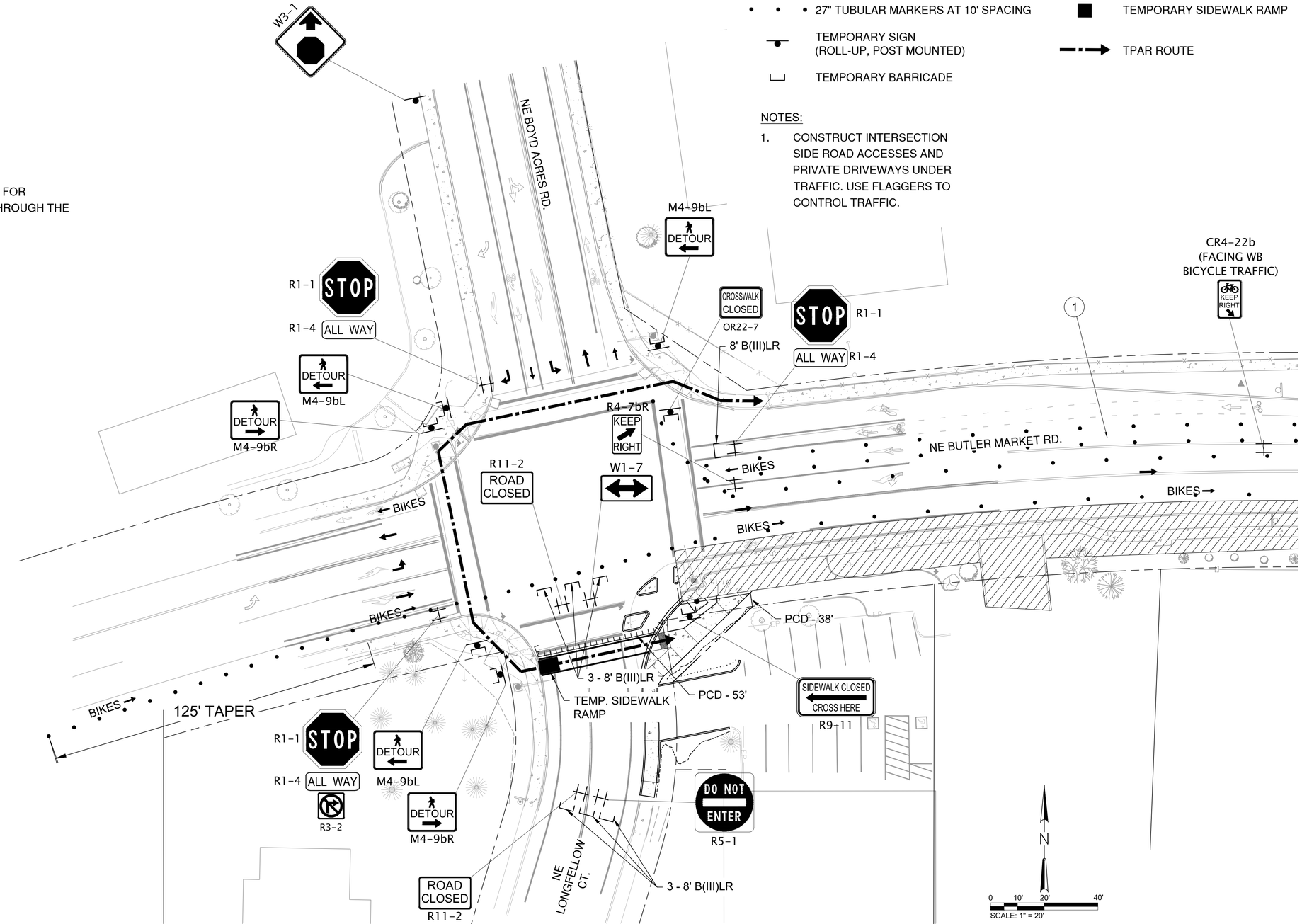
(1) MAINTAIN 4-FT MIN. WIDTH FOR TEMPORARY BIKE LANE THROUGH THE WORK AREA, AS SHOWN.

LEGEND:

- UNDER CONSTRUCTION STAGE I, PHASE 2
- DIRECTION OF TRAFFIC
- BIKES → DIRECTION OF BIKE TRAFFIC
- • • 27" TUBULAR MARKERS AT 20' SPACING
- • • • 27" TUBULAR MARKERS AT 10' SPACING
- TEMPORARY SIGN (ROLL-UP, POST MOUNTED)
- TEMPORARY BARRICADE
- SIGN MOUNTED ON TEMPORARY SIGN SUPPORT (TSS)
- TEMPORARY SIGN MOUNTED ON TYPE II BARRICADE
- PEDESTRAIN CHANNELIZING DEVICE (PCD)
- TEMPORARY SIDEWALK RAMP
- TPAR ROUTE

NOTES:

1. CONSTRUCT INTERSECTION SIDE ROAD ACCESSES AND PRIVATE DRIVEWAYS UNDER TRAFFIC. USE FLAGGERS TO CONTROL TRAFFIC.



REGISTERED PROFESSIONAL ENGINEER
17878
OREGON
JULY 25, 1995
SCOTT M. McCANNA
EXPIRES:12/31/2026

BEND BIKEWAYS NO. 1TBKE
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INTERSECTION IMPROVEMENTS
TRAFFIC CONTROL PLAN

CITY OF BEND — DESCHUTES COUNTY, OREGON

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2943 NW Lolo Dr., Suite 275
Bend, Oregon 97703
Phone: 541.389.7614

DESIGNED BY: SMMC
DRAWN BY: RJXM
SCALE: 1" = 20'
FILE: C7.TRAFFIC_CONTROL-BNDX00000132.DWG
DATE: 6/19/26

VERIFY SCALES
0 1"
BAR EQUALS ONE INCH ON ORIGINAL DRAWING

SHEET: TC7

COB # 1TBKE

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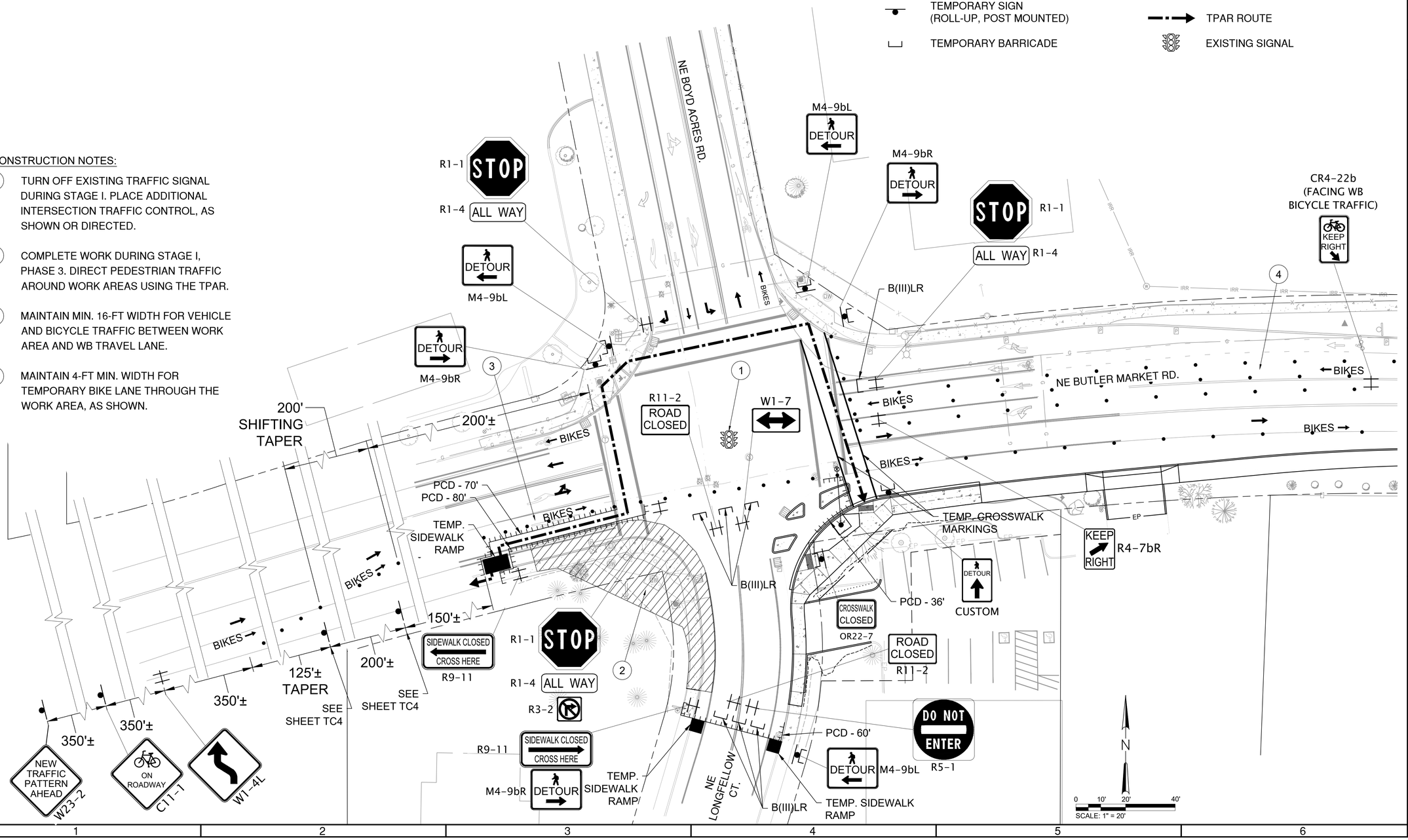
STAGE I, PHASE 3

LEGEND:

- UNDER CONSTRUCTION STAGE I, PHASE 3
- DIRECTION OF TRAFFIC
- BIKES → DIRECTION OF BIKE TRAFFIC
- 27" TUBULAR MARKERS AT 20' SPACING
- 27" TUBULAR MARKERS AT 10' SPACING
- TEMPORARY SIGN (ROLL-UP, POST MOUNTED)
- TEMPORARY BARRICADE
- SIGN MOUNTED ON TEMPORARY SIGN SUPPORT (TSS)
- TEMPORARY SIGN MOUNTED ON TYPE II BARRICADE
- PEDESTRAIN CHANNELIZING DEVICE (PCD)
- TEMPORARY SIDEWALK RAMP
- TPAR ROUTE
- EXISTING SIGNAL

CONSTRUCTION NOTES:

1. TURN OFF EXISTING TRAFFIC SIGNAL DURING STAGE I. PLACE ADDITIONAL INTERSECTION TRAFFIC CONTROL, AS SHOWN OR DIRECTED.
2. COMPLETE WORK DURING STAGE I, PHASE 3. DIRECT PEDESTRIAN TRAFFIC AROUND WORK AREAS USING THE TPAR.
3. MAINTAIN MIN. 16-FT WIDTH FOR VEHICLE AND BICYCLE TRAFFIC BETWEEN WORK AREA AND WB TRAVEL LANE.
4. MAINTAIN 4-FT MIN. WIDTH FOR TEMPORARY BIKE LANE THROUGH THE WORK AREA, AS SHOWN.



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REGISTERED PROFESSIONAL ENGINEER 17878 OREGON JULY 25, 1995 SCOTT M. MCCANNA EXPIRES:12/31/2026

BEND BIKEWAYS NO. 1TBKE
BUTLER MARKET/BOYD ACRES INTERSECTION IMPROVEMENTS
TRAFFIC CONTROL PLAN

CITY OF BEND — DESCHUTES COUNTY, OREGON

REVISIONS:

DAVID EVANS AND ASSOCIATES INC.
2843 NW Lolo Dr., Suite 275
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Phone: 541.389.7614

DESIGNED BY: SMMC
DRAWN BY: RJKM
SCALE: 1" = 20'
FILE: C8.TRAFFIC_CONTROL-BNDX00000132.DWG
DATE: 6/19/26

VERIFY SCALES
0 1"
BAR EQUALS ONE INCH ON ORIGINAL DRAWING

SHEET: TC8

COB # 1TBKE

NOTES:

1. SEE SHEET TC2 AND TC13 FOR DETOUR SIGNING DETAILS NOT SHOWN.
2. SIGN SPACING NOT TO SCALE. LOCATE AS SHOWN OR AS DIRECTED.
3. WESTBOUND TRAFFIC ON BUTLER MARKET RD. BETWEEN BOYD ACRES RD. AND 8TH AVE. IS LOCAL TRAFFIC ONLY. BUTLER MARKET RD. REMAINS CLOSED FOR WESTBOUND TRAFFIC FROM 8TH AVE.
4. CONSTRUCT INTERSECTION SIDE ROAD ACCESSES AND PRIVATE DRIVEWAYS UNDER TRAFFIC. USE FLAGGERS TO CONTROL TRAFFIC.

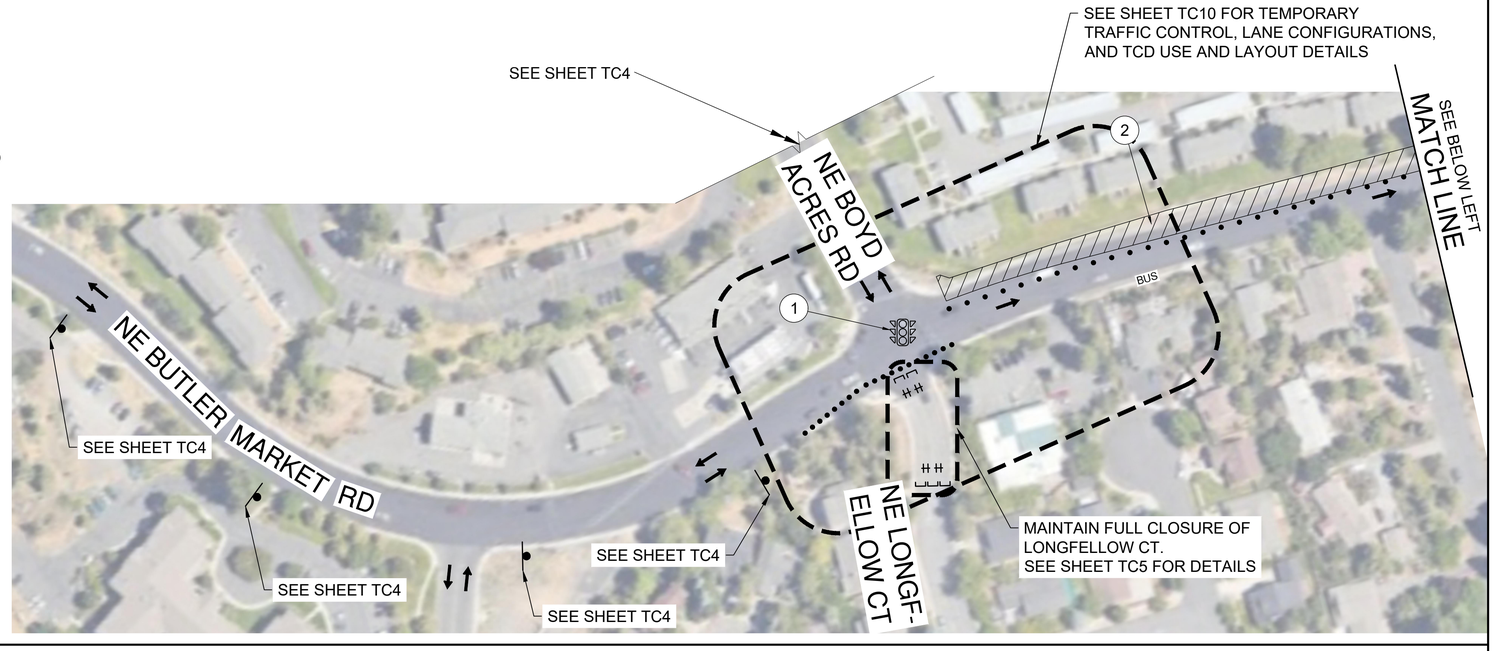
CONSTRUCTION NOTES:

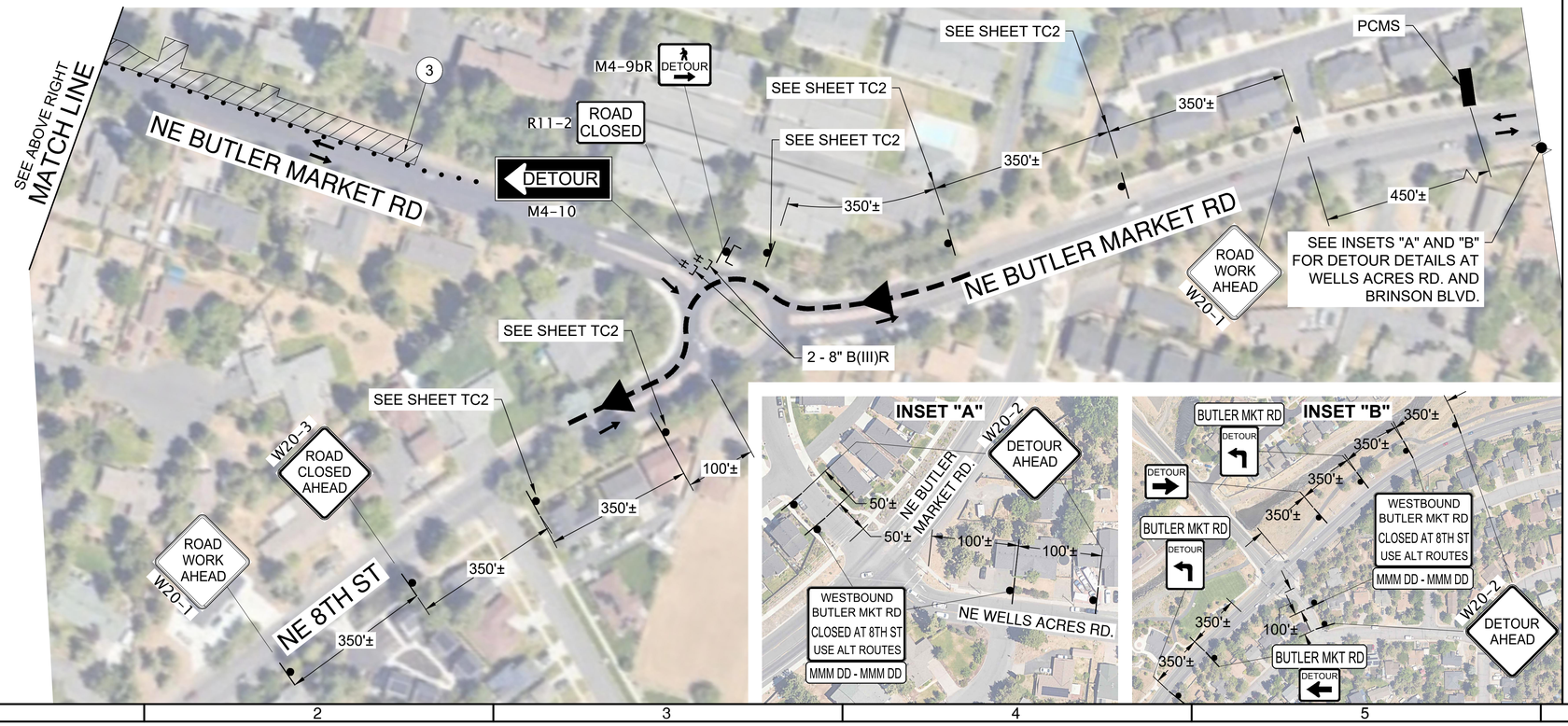
(1) TURN OFF EXISTING TRAFFIC SIGNAL DURING STAGE II. PLACE ADDITIONAL INTERSECTION TRAFFIC CONTROL, AS SHOWN OR AS DIRECTED.

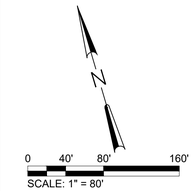
(2) COMPLETE WORK DURING STAGE II, PHASE 1. DIRECT PEDESTRIAN TRAFFIC AROUND WORK AREAS USING THE TPAR, AS SHOWN

(3) SEE SHEET TC10 FOR TPAR DETAILS

STAGE II, PHASE 1

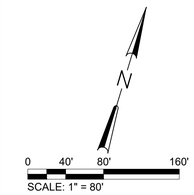






LEGEND:

- UNDER CONSTRUCTION STAGE II, PHASE 1
- DIRECTION OF TRAFFIC
- 27" TUBULAR MARKERS AT 20' SPACING
- 27" TUBULAR MARKERS AT 10' SPACING
- TEMPORARY SIGN (ROLL-UP, POST MOUNTED)
- TEMPORARY BARRICADE
- SIGN MOUNTED ON TEMPORARY SIGN SUPPORT (TSS)
- TEMPORARY SIGN MOUNTED ON TYPE II BARRICADE
- EXISTING SIGNAL



BUTLR MK WESTBND CLOSED	USE DETR FOR WEST BUTLR MK

PORTABLE CHANGEABLE MESSAGE SIGN
RECOMMENDED MESSAGES

REGISTERED PROFESSIONAL ENGINEER
17878
OREGON
JULY 25, 1995
SCOTT M. MCFANNA
EXPIRES:12/31/2026

BEND BIKEWAYS NO. 1TBKE
BUTLER MARKET/BOYD ACRES INTERSECTION IMPROVEMENTS
TRAFFIC CONTROL PLAN

CITY OF BEND — DESCHUTES COUNTY, OREGON

REVISIONS:

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Bend, Oregon 97703
Phone: 541.389.7614

DESIGNED BY: SMMC
DRAWN BY: RJXM
SCALE: 1" = 20'
FILE: C9.TRAFFIC_CONTROL-BNDX00000132.DWG
DATE: 6/19/26

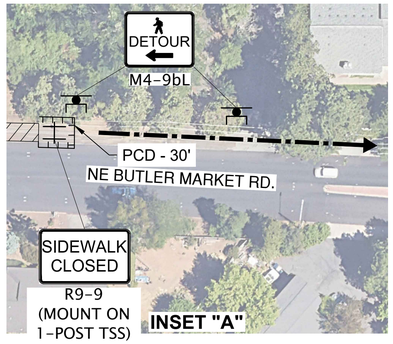
VERIFY SCALES
0 1"
BAR EQUALS ONE INCH ON ORIGINAL DRAWING

SHEET: TC9

COB # 1TBKE

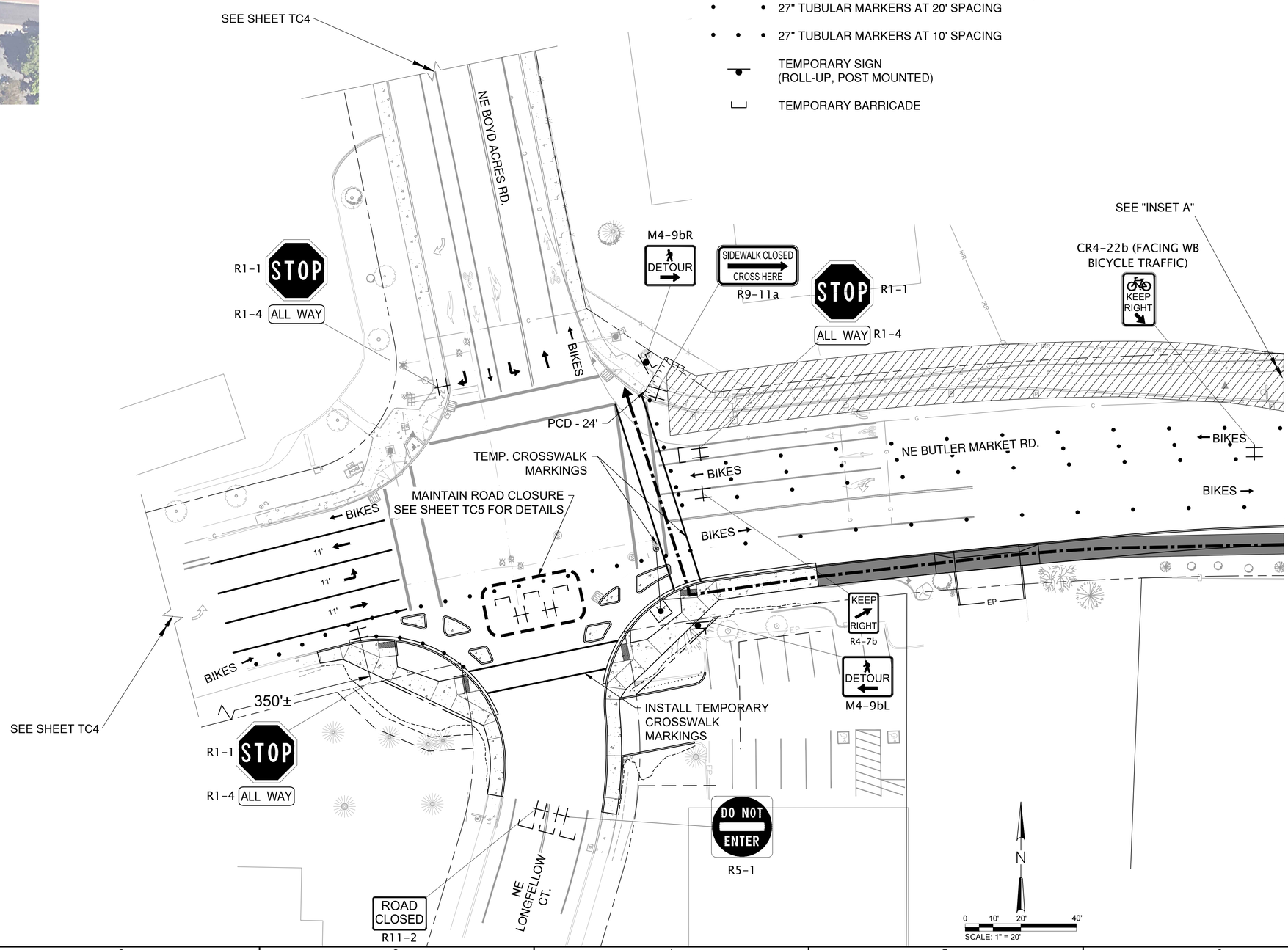
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STAGE II, PHASE 1



LEGEND:

- UNDER CONSTRUCTION STAGE II, PHASE 1
- COMPLETED IN PREVIOUS STAGE
- DIRECTION OF TRAFFIC
- BIKES → DIRECTION OF BIKE TRAFFIC
- 27" TUBULAR MARKERS AT 20' SPACING
- 27" TUBULAR MARKERS AT 10' SPACING
- TEMPORARY SIGN (ROLL-UP, POST MOUNTED)
- TEMPORARY BARRICADE
- SIGN MOUNTED ON TEMPORARY SIGN SUPPORT (TSS)
- TEMPORARY SIGN MOUNTED ON TYPE II BARRICADE
- PEDESTRAIN CHANNELIZING DEVICE (PCD)
- TPAR ROUTE



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REGISTERED PROFESSIONAL ENGINEER 17878 OREGON JULY 25, 1995 SCOTT M. McCANNA EXPIRES:12/31/2026

BEND BIKEWAYS NO. 1TBKE
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CITY OF BEND — DESCHUTES COUNTY, OREGON

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2943 NW Lolo Dr., Suite 275
Bend, Oregon 97703
Phone: 541.389.7614

DESIGNED BY: SMMC
DRAWN BY: RJAM
SCALE: 1" = 20'
FILE: C10.TRAFFIC_CONTROL-BNDX00000132.DWG
DATE: 6/19/26

VERIFY SCALES
0 1"
BAR EQUALS ONE INCH ON ORIGINAL DRAWING

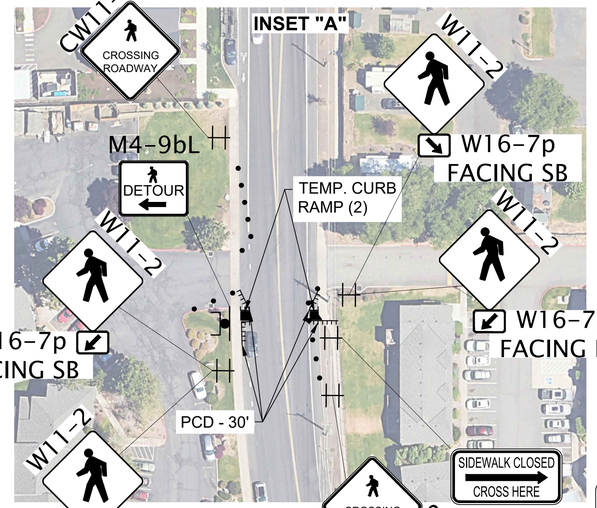
SHEET: TC10

COB # 1TBKE

STAGE II, PHASE 2

SEE "INSET A" FOR ADDITIONAL TPAR DETAILS

SEE SHEET TC4 FOR ROSS RD. DETAILS



LEGEND:

- UNDER CONSTRUCTION STAGE II, PHASE 2
- DIRECTION OF TRAFFIC
- BIKES → DIRECTION OF BIKE TRAFFIC
- 27" TUBULAR MARKERS AT 20' SPACING
- 27" TUBULAR MARKERS AT 10' SPACING
- TEMPORARY SIGN (ROLL-UP, POST MOUNTED)
- TEMPORARY BARRICADE
- SIGN MOUNTED ON TEMPORARY SIGN SUPPORT (TSS)
- TEMPORARY SIGN MOUNTED ON TYPE II BARRICADE
- PEDESTRAIN CHANNELIZING DEVICE (PCD)
- TEMPORARY SIDEWALK RAMP
- TPAR ROUTE

CONSTRUCTION NOTES:

1. PLACE TEMPORARY CROSSWALK MARKINGS
2. MAINTAIN EXISTING TEMPORARY CROSSWALK MARKINGS FROM STAGE II, PHASE 1

R9-9 SIDEWALK CLOSED

PCD - 30'

200' SHIFTING TAPER

250'±

W3-1

R1-1 STOP

R1-4 ALL WAY

250'±

NE BOYD ACRES RD.

BIKES

11'

11'

4'

4'

BIKES

SIDEWALK CLOSED CROSS HERE

R9-11a

DETOUR

M4-9bL

DETOUR

M4-9bR

TEMP. CROSSWALK MARKINGS

MAINTAIN ROAD CLOSURE
SEE SHEET TC5 FOR DETAILS

BIKES

11'

11'

11'

BIKES

SEE SHEET TC4

R9-11 SIDEWALK CLOSED CROSS HERE

PCD - 50'

R1-1 STOP

ALL WAY R1-4

NE BUTLER MARKET RD.

BIKES

BIKES

BIKES

BIKES

KEEP RIGHT

R4-7b

EP

EP

DETOUR

M4-9bL

DETOUR

M4-9bR

R1-1 STOP

R1-4 ALL WAY

DETOUR

M4-9bR

DETOUR

M4-9bL

DO NOT ENTER

R5-1

ROAD CLOSED

R11-2

NE LONGFELLOW CT.

N

0 10' 20' 40'

SCALE: 1" = 20'

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REGISTERED PROFESSIONAL ENGINEER
17878
OREGON
JULY 25, 1995
SCOTT M. McCANNA
EXPIRES:12/31/2026

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DESCHUTES COUNTY, OREGON

REVISIONS:

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2843 NW Lolo Dr., Suite 275
Bend, Oregon 97703
Phone: 541.389.7614

DESIGNED BY: SMMC
DRAWN BY: RJKM
SCALE: 1" = 20'
FILE: C11.TRAFFIC_CONTROL-BNDX00000132.DWG
DATE: 6/19/26

VERIFY SCALES
0 1"
BAR EQUALS ONE INCH ON ORIGINAL DRAWING

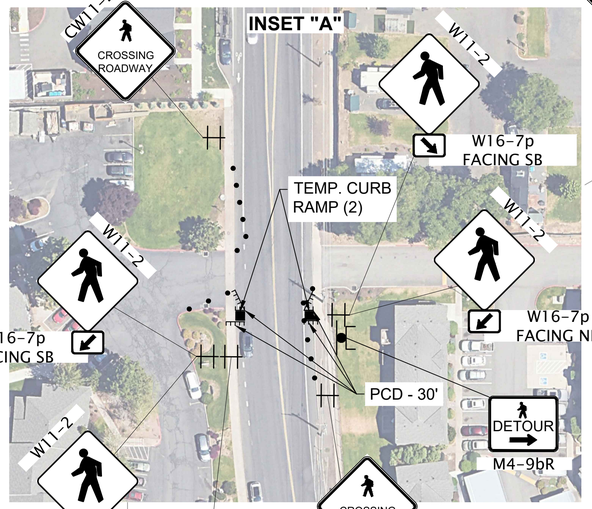
SHEET:
TC11

COB # 1TBKE

STAGE III

SEE SHEET TC4 FOR ROSS RD. DETAILS

SEE "INSET "A" FOR ADDITIONAL TPAR DETAILS



LEGEND:

- UNDER CONSTRUCTION STAGE III, PHASE 1
- DIRECTION OF TRAFFIC
- BIKES → DIRECTION OF BIKE TRAFFIC
- 27" TUBULAR MARKERS AT 20' SPACING
- 27" TUBULAR MARKERS AT 10' SPACING
- TEMPORARY SIGN (ROLL-UP, POST MOUNTED)
- TEMPORARY BARRICADE
- SIGN MOUNTED ON TEMPORARY SIGN SUPPORT (TSS)
- TEMPORARY SIGN MOUNTED ON TYPE II BARRICADE
- PEDESTRAIN CHANNELIZING DEVICE (PCD)
- TEMPORARY SIDEWALK RAMP
- TPAR ROUTE

CONSTRUCTION NOTES:

1. MAINTAIN EXISTING TEMPORARY CROSSWALK MARKINGS FROM STAGE II, PHASE2. MAINTAIN EXISTING NORTHERN CROSSWALK STRIPE ON NORTH LEG OF INTERSECTION AS A TEMPORARY STOP BAR, AS SHOWN.
2. REMOVE EXTG. PERMANENT OR TEMPORARY PAVEMENT MARKINGS, LEGENDS AND BARS THAT CONFLICT WITH THE PLACEMENT OF TEMPORARY PAVEMENT MARKINGS FOR STAGE III, AS SHOWN OR AS DIRECTED.

REGISTERED PROFESSIONAL ENGINEER
17878
OREGON
JULY 25, 1995
SCOTT M. McCANNA
EXPIRES:12/31/2026

BEND BIKEWAYS NO. 1TBKE
BUTLER MARKET/BOYD ACRES
INTERSECTION IMPROVEMENTS
TRAFFIC CONTROL PLAN
CITY OF BEND — DESCHUTES COUNTY, OREGON

REVISIONS:

DAVID EVANS AND ASSOCIATES INC.
2943 NW Lolo Dr., Suite 275
Bend, Oregon 97703
Phone: 541.389.7614

DESIGNED BY: SMMC
DRAWN BY: RJXM
SCALE: 1" = 20'
FILE: C12.TRAFFIC_CONTROL-BNDX0000132.DWG
DATE: 6/19/26

VERIFY SCALES
0 1"
BAR EQUALS ONE INCH ON ORIGINAL DRAWING

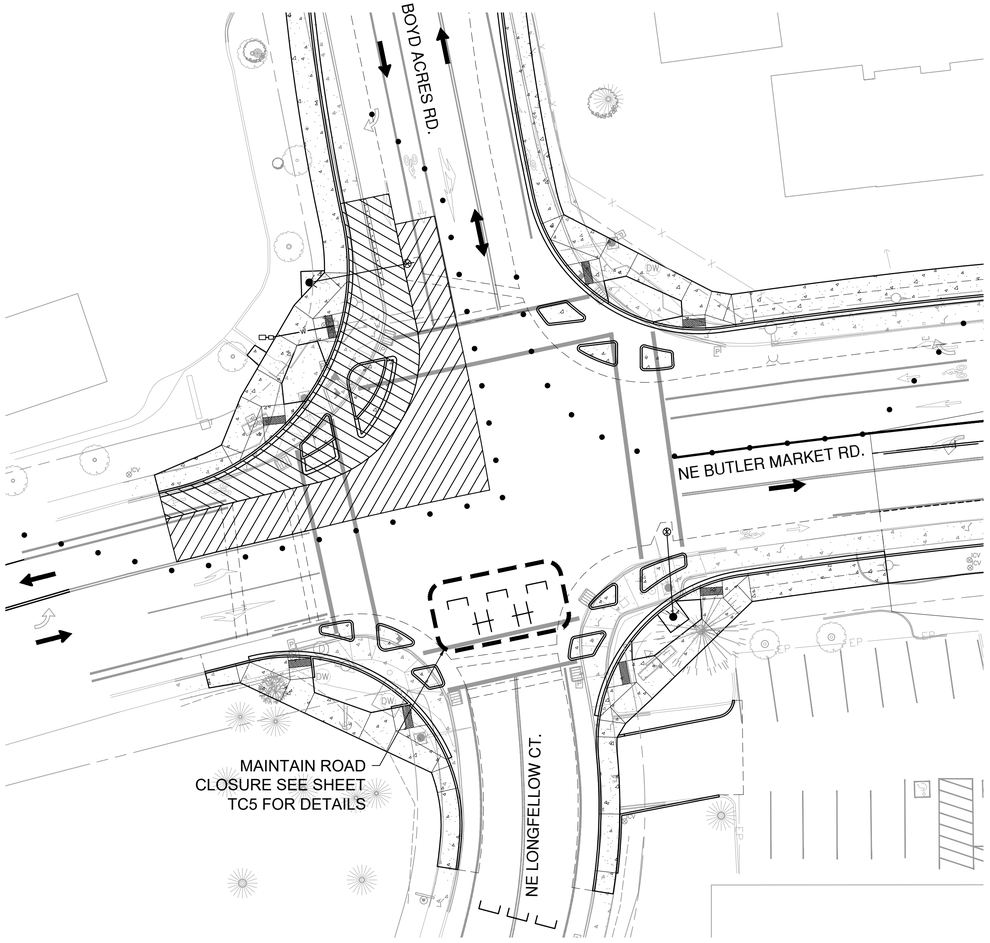
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COB # 1TBKE

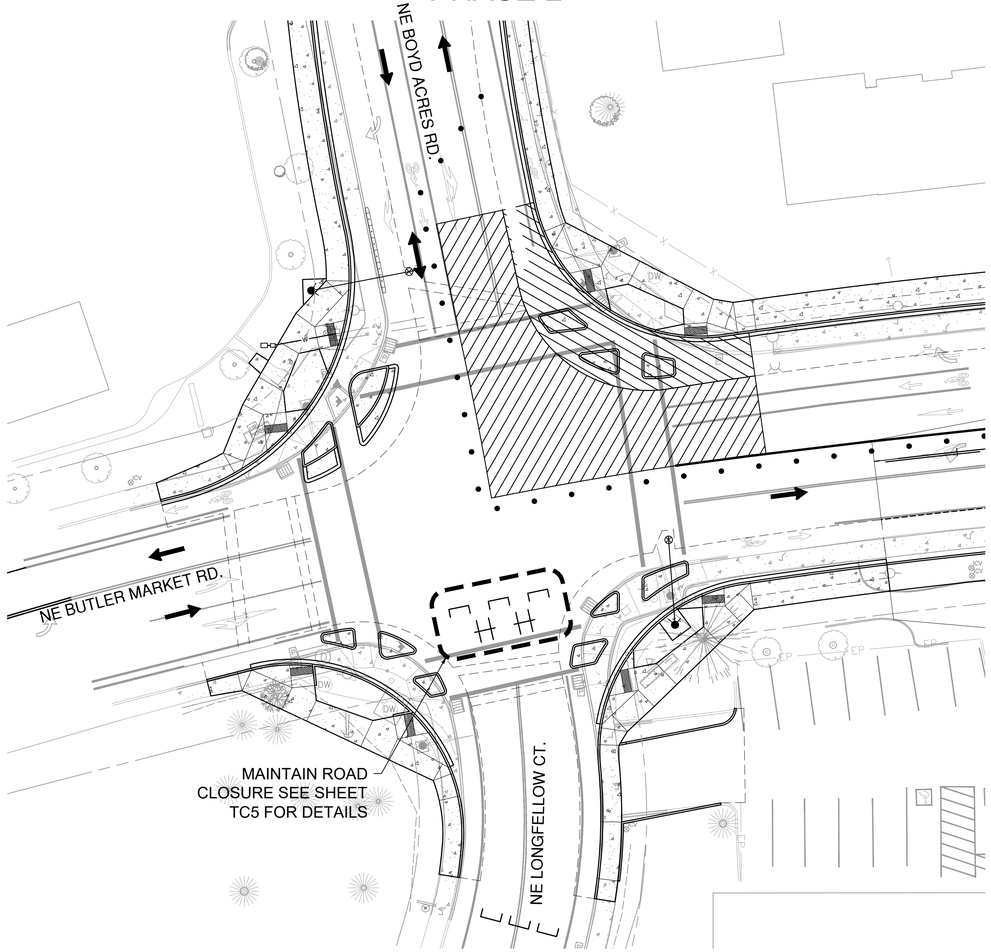
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STAGE IV

PHASE 1



PHASE 2



LEGEND:

- GRIND/INLAY PAVING WORK LIMITS
- ISLAND AREA FINISH PAVING LIMITS
- DIRECTION OF TRAFFIC
- 27" TUBULAR MARKERS AT 10' SPACING

GENERAL NOTES:

1. DURING PAVING AND ISLAND/SEPARATOR WORK, CONTROL TRAFFIC USING FLAGGERS AND PLACE TCD ACCORDING TO ODOT STD. DWG. TM855. PLACE ADDITIONAL FLAGGERS AND TCD ACCORDING TO THE "ADVANCE FLAGGER FOR EXTENDED TRAFFIC QUEUES" DETAIL, AS NEEDED.
2. AFTER FINISH LIFT PAVING HAS BEEN COMPLETED, AND TEMPORARY OR PERMANENT PAVEMENT MARKINGS ARE IN PLACE, THE WESTBOUND BUTLER MARKET RD. TRAFFIC LANE MAY BE REOPENED, AS DIRECTED.
3. NE LONGFELLOW CT. MAY BE REOPENED TO TRAFFIC AFTER PERMANENT TRAFFIC SIGNAL WORK IS COMPLETED, AFTER INTERSECTION PAVING WORK IS COMPLETED, AND PAVEMENT MARKINGS ARE IN PLACE, OR AS DIRECTED.
4. DURING STAGE IV INTERSECTION PAVING WORK, SEE PREVIOUS APPLICABLE STAGING SHEETS FOR TPAR DETAILS.
5. ONCE FINISH LIFT PAVING IS COMPLETE, SURFACE-MOUNTED CURBING AND TRAFFIC SEPARATORS MAY BE INSTALLED AS SHOWN. SINGLE TRAFFIC LANES MAY BE CLOSED ACCORDING TO 00220.40 TO COMPLETE THE WORK.

REGISTERED PROFESSIONAL ENGINEER
17878
OREGON
JULY 25, 1995
SCOTT M. McCANNA
EXPIRES:12/31/2026

BEND BIKEWAYS NO. 1TBKE
BUTLER MARKET/BOYD ACRES INTERSECTION IMPROVEMENTS
TRAFFIC CONTROL PLAN
CITY OF BEND — DESCHUTES COUNTY, OREGON

REVISIONS:

DAVID EVANS AND ASSOCIATES INC.
2943 NW Lolo Dr., Suite 275
Bend, Oregon 97703
Phone: 541.389.7614

DESIGNED BY: SMMC
DRAWN BY: RJXM
SCALE: 1" = 20'
FILE: C13.TRAFFIC_CONTROL-BNDX00000132.DWG
DATE: 6/19/26

VERIFY SCALES
0 1"
BAR EQUALS ONE INCH ON ORIGINAL DRAWING

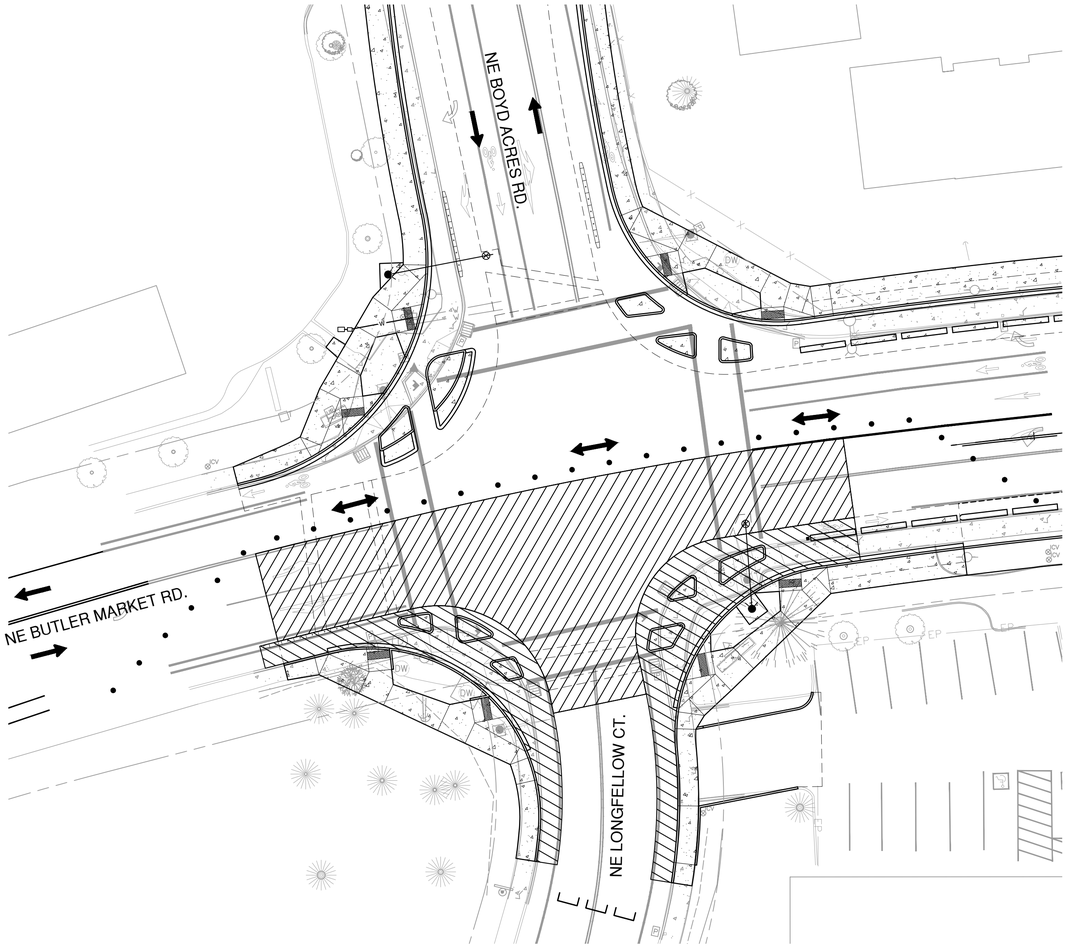
SHEET:
TC13

COB # 1TBKE

P:\B\BNDX00000132\0400CAD\SHEETS\TT\BUTLER-BOYD\C13.TRAFFIC_CONTROL-BNDX00000132.DWG

STAGE IV

PHASE 3



LEGEND:

- GRIND/INLAY PAVING WORK LIMITS
- ISLAND/SEPARATOR/CURB WORK AREA LIMITS
- DIRECTION OF TRAFFIC
- 27" TUBULAR MARKERS AT 10' SPACING

GENERAL NOTES:

1. DURING PAVING AND ISLAND/SEPARATOR WORK, CONTROL TRAFFIC USING FLAGGERS AND PLACE TCD ACCORDING TO ODOT STD. DWG. TM855. PLACE ADDITIONAL FLAGGERS AND TCD ACCORDING TO THE "ADVANCE FLAGGER FOR EXTENDED TRAFFIC QUEUES" DETAIL, AS NEEDED.
2. AFTER FINISH LIFT PAVING HAS BEEN COMPLETED, AND TEMPORARY OR PERMANENT PAVEMENT MARKINGS ARE IN PLACE, THE WESTBOUND BUTLER MARKET RD. TRAFFIC LANE MAY BE REOPENED, AS DIRECTED.
3. NE LONGFELLOW CT. MAY BE REOPENED TO TRAFFIC AFTER PERMANENT TRAFFIC SIGNAL WORK IS COMPLETED, AFTER INTERSECTION PAVING WORK IS COMPLETED, AND PAVEMENT MARKINGS ARE IN PLACE, OR AS DIRECTED.
4. DURING STAGE IV INTERSECTION PAVING WORK, SEE PREVIOUS APPLICABLE STAGING SHEETS FOR TPAR DETAILS.

REGISTERED PROFESSIONAL ENGINEER
17878
OREGON
JULY 25, 1995
SCOTT M. McCANNA
EXPIRES:12/31/2026

BEND BIKEWAYS NO. 1TBKE
BUTLER MARKET/BOYD ACRES
INTERSECTION IMPROVEMENTS
TRAFFIC CONTROL PLAN
CITY OF BEND — DESCHUTES COUNTY, OREGON

REVISIONS:

DAVID EVANS AND ASSOCIATES INC.
2843 NW Lolo Dr., Suite 275
Bend, Oregon 97703
Phone: 541.389.7614

DESIGNED BY: SMMC
DRAWN BY: RJKM
SCALE: 1" = 20'
FILE: C14.TRAFFIC_CONTROL-BNDX00000132.DWG
DATE: 6/19/26

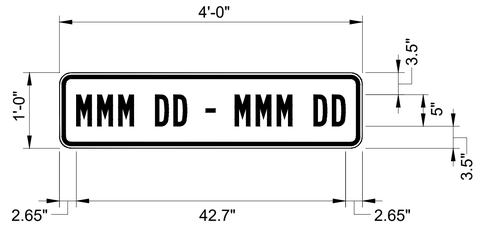
VERIFY SCALES
0 1"
BAR EQUALS ONE INCH ON ORIGINAL DRAWING

SHEET:
TC14

COB # 1TBKE

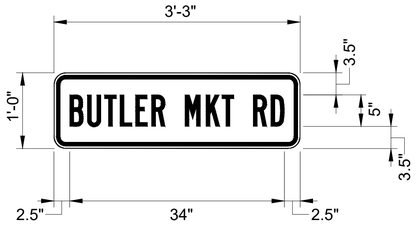
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TEMPORARY SIGNS



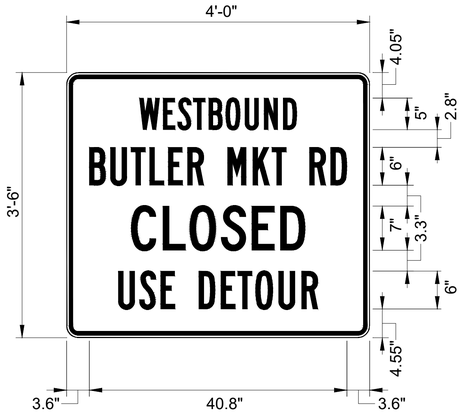
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IN=0.38"

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M.U.T.C.D.: 2009 Edition



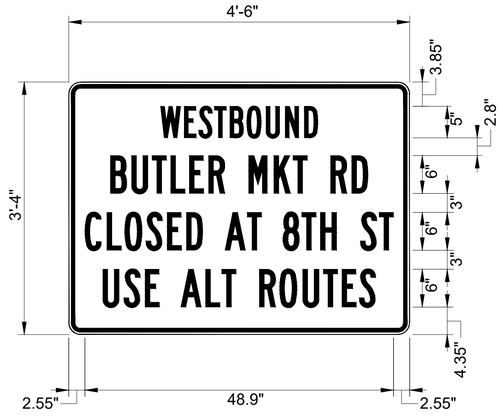
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TH=0.63"
IN=0.38"

Panel Style: WZ Rectangle.ssi
M.U.T.C.D.: 2009 Edition



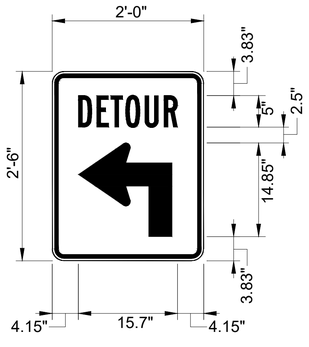
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M.U.T.C.D.: 2009 Edition



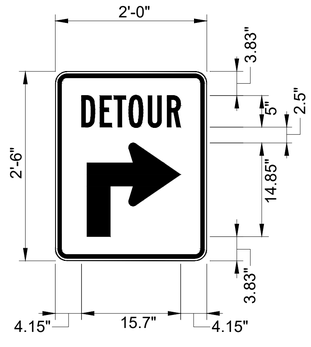
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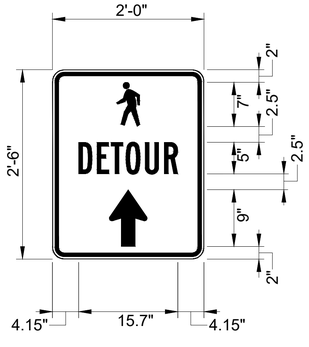
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Panel Style: WZ Rectangle.ssi
M.U.T.C.D.: 2009 Edition



BORDER
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TH=0.63"
IN=0.38"

Panel Style: WZ Rectangle.ssi
M.U.T.C.D.: 2009 Edition



BORDER
R=1.5"
TH=0.63"
IN=0.38"

Panel Style: WZ Rectangle.ssi
M.U.T.C.D.: 2009 Edition

P:\B\BNDX00000132\0400CAD\SHEETS\TT\BUTLER-BOYD\C15.TRAFFIC_CONTROL-BNDX00000132.DWG

REGISTERED PROFESSIONAL ENGINEER
17878
OREGON
JULY 25, 1995
SCOTT M. MCCANNA
EXPIRES:12/31/2026

BEND BIKEWAYS NO. 1TBKE
BUTLER MARKET/BOYD ACRES
INTERSECTION IMPROVEMENTS
TRAFFIC CONTROL DETAILS
CITY OF BEND — DESCHUTES COUNTY, OREGON

REVISIONS:

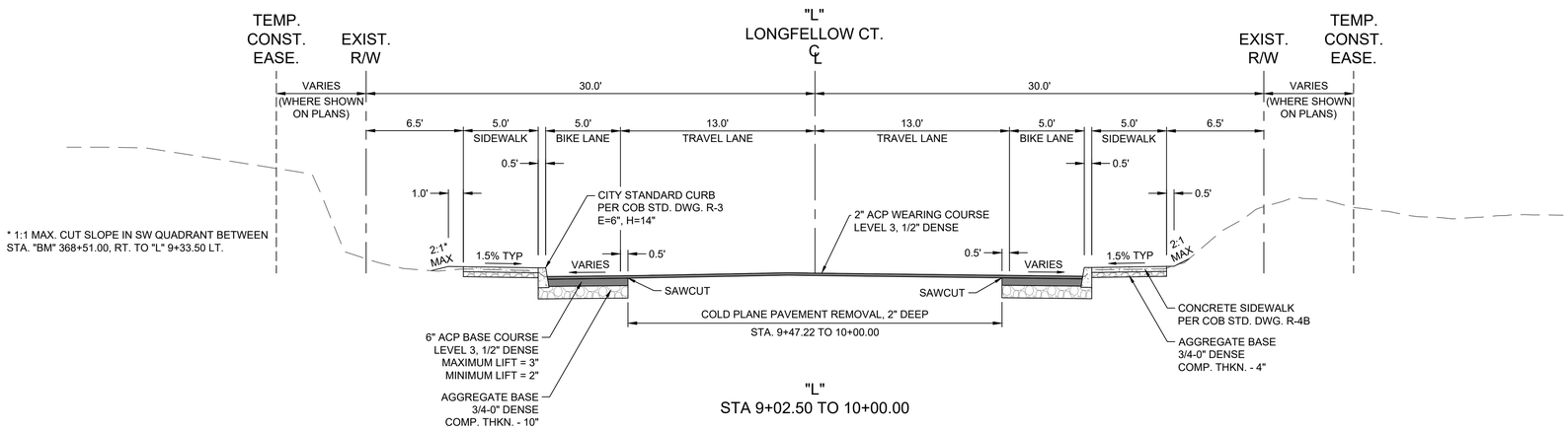
DAVID EVANS AND ASSOCIATES INC.
2843 NW Lolo Dr., Suite 275
Bend, Oregon 97703
Phone: 541.389.7614

DESIGNED BY: SMMC
DRAWN BY: RJXM
SCALE: N.T.S.
FILE: C15.TRAFFIC_CONTROL-BNDX00000132.DWG
DATE: 6/19/26

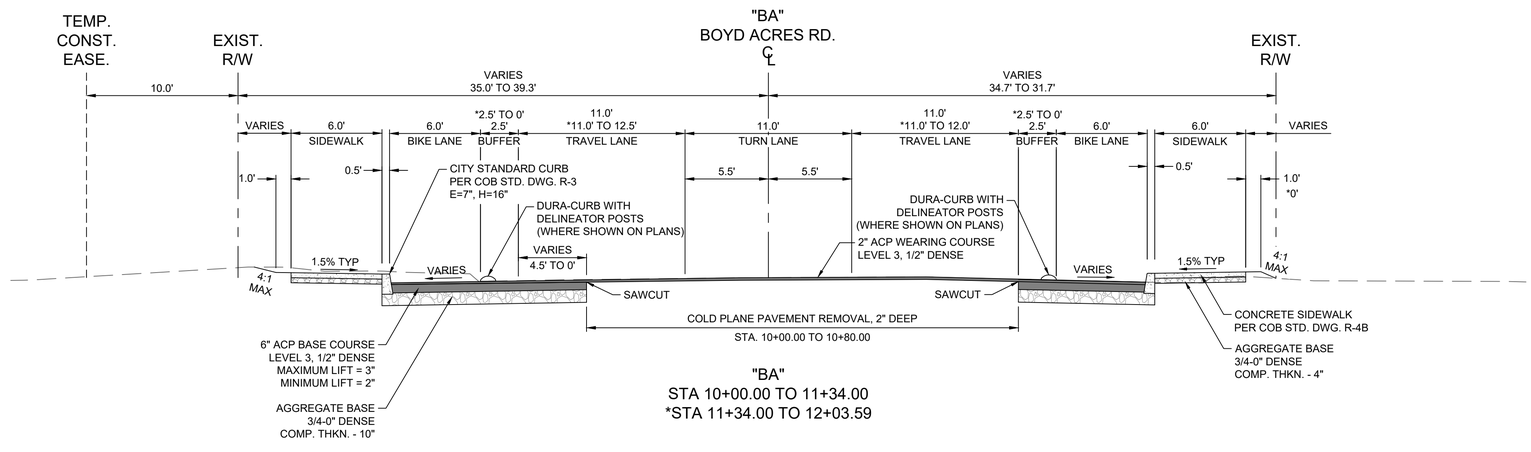
VERIFY SCALES
0 — 1"
BAR EQUALS ONE INCH
ON ORIGINAL DRAWING

SHEET:
TC15

COB # 1TBKE



"L"
STA 9+02.50 TO 10+00.00



"BA"
STA 10+00.00 TO 11+34.00
*STA 11+34.00 TO 12+03.59

NOTES:
1. TYPICAL SECTIONS ARE FACING UP STATION.
2. FOR MOUNTABLE CONCRETE APRONS NOT NOT SHOWN, SEE SHEET RD1 FOR DETAILS.
3. STATION RANGE OF AC WEARING COURSE TO CORRESPOND TO COLD PLANE STATION RANGE BETWEEN THE SAWCUT LINES.

REGISTERED PROFESSIONAL ENGINEER
OREGON
SEPT. 11, 2018
CONOR R. COSTIGAN
EXPIRES: 12/31/2027

BEND BIKEWAYS NO. 1TBKE
BUTLER MARKET/BOYD ACRES INTERSECTION IMPROVEMENTS
TYPICAL SECTIONS

CITY OF BEND — DESCHUTES COUNTY, OREGON

REVISIONS:

DAVID EVANS AND ASSOCIATES INC.
2843 NW Lolo Dr., Suite 275
Bend, Oregon 97703
Phone: 541.389.7614

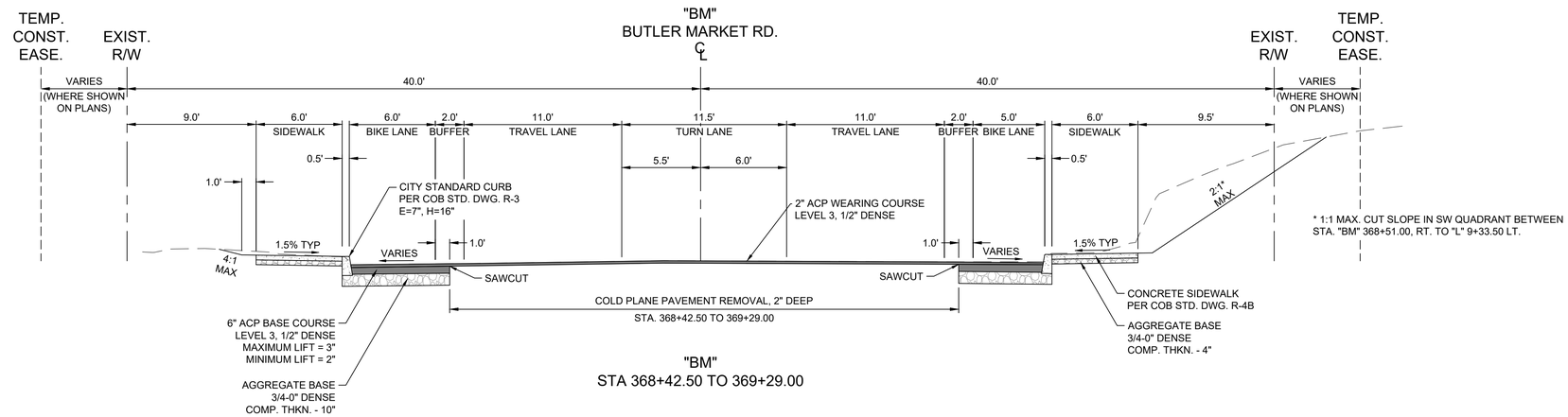
DESIGNED BY: CRCO
DRAWN BY: CRCO
SCALE: N.T.S.
FILE: C10TYPSECTIONS-BNDX00000132.DWG
DATE: 6/19/26

VERIFY SCALES
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BAR EQUALS ONE INCH ON ORIGINAL DRAWING

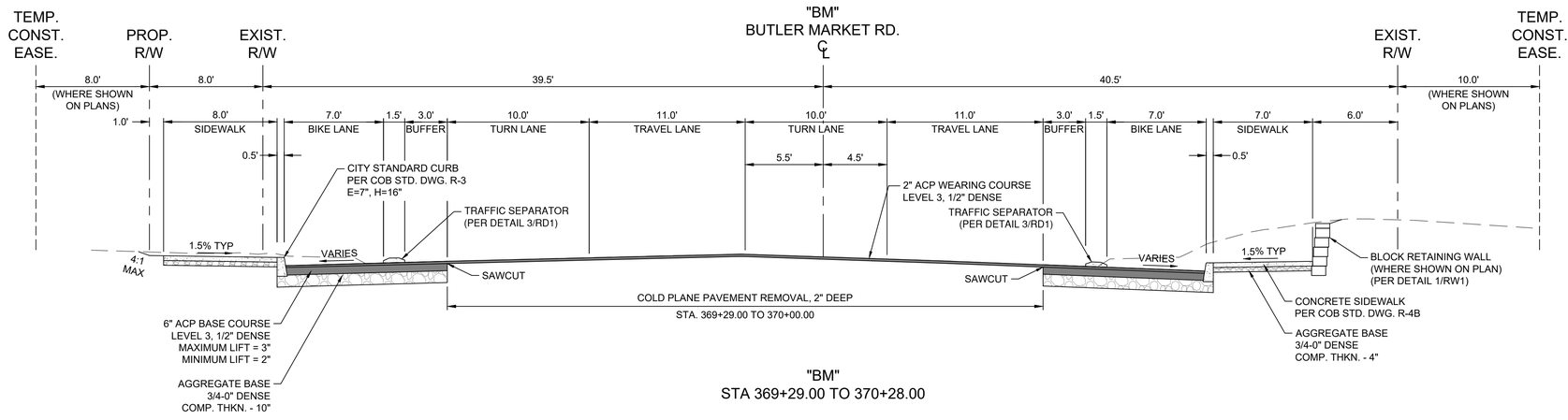
SHEET: TYP1

COB # 1TBKE

P:\B\BNDX00000132\0400CAD\SHEETS\RH\BUTLER-BOYD\C10.TYPSECTIONS-BNDX00000132.DWG



"BM"
STA 368+42.50 TO 369+29.00



"BM"
STA 369+29.00 TO 370+28.00

NOTES:
1. TYPICAL SECTIONS ARE FACING UP STATION.
2. FOR MOUNTABLE CONCRETE APRONS NOT NOT SHOWN, SEE SHEET RD1 FOR DETAILS.
3. STATION RANGE OF AC WEARING COURSE TO CORRESPOND TO COLD PLANE STATION RANGE BETWEEN THE SAWCUT LINES.

P:\B\BNDX00000132\0400CAD\SHEETS\RH\BUTLER-BOYD\C10.TYPSECTIONS-BNDX00000132.DWG

REGISTERED PROFESSIONAL ENGINEER
OREGON
SEPT. 11, 2018
CONOR R. COSTIGAN
EXPIRES: 12/31/2027

BEND BIKEWAYS NO. 1TBKE
BUTLER MARKET/BOYD ACRES INTERSECTION IMPROVEMENTS
TYPICAL SECTIONS

CITY OF BEND — DESCHUTES COUNTY, OREGON

REVISIONS:

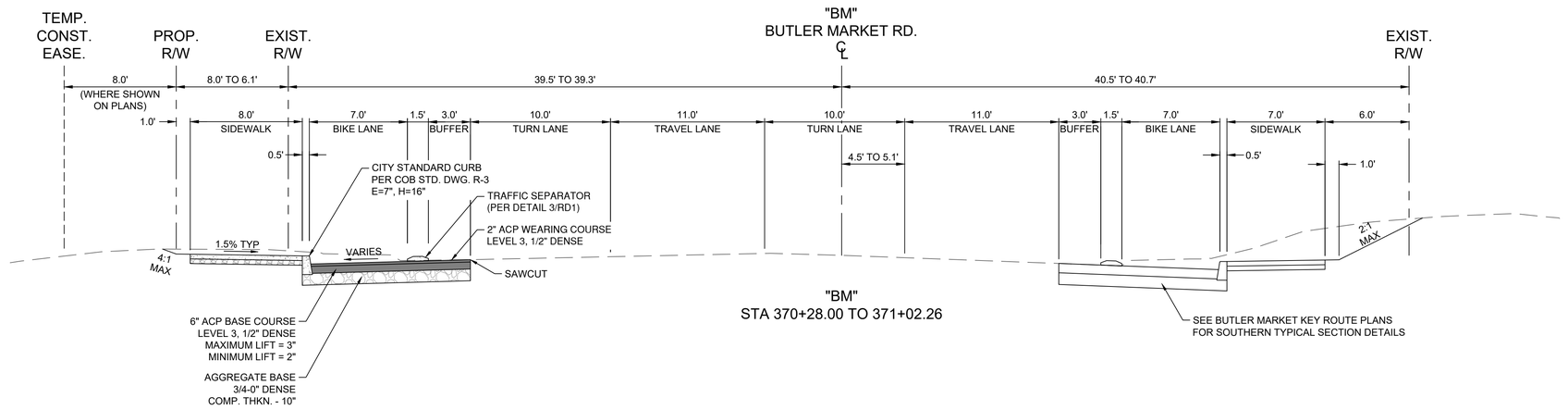
DAVID EVANS AND ASSOCIATES INC.
2843 NW Lolo Dr., Suite 275
Bend, Oregon 97703
Phone: 541.389.7614

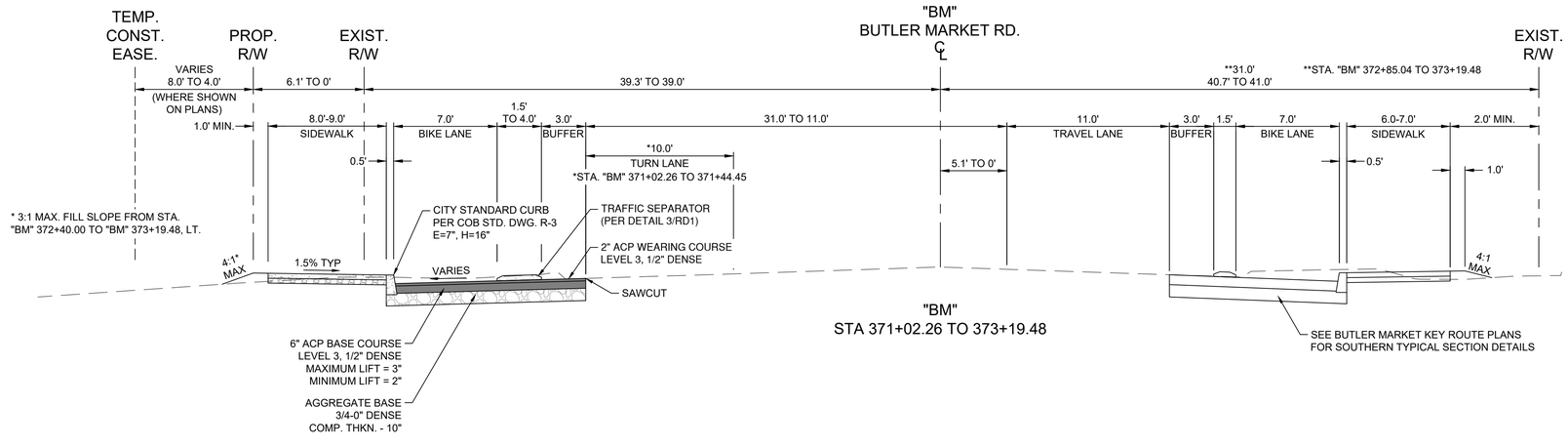
DESIGNED BY: CRCO
DRAWN BY: CRCO
SCALE: N.T.S.
FILE: C10.TYPSECTIONS-BNDX00000132.DWG
DATE: 6/19/26

VERIFY SCALES
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BAR EQUALS ONE INCH ON ORIGINAL DRAWING

SHEET: TYP2

COB # 1TBKE





NOTES:
1. TYPICAL SECTIONS ARE FACING UP STATION.

P:\B\BNDX00000132\0400CAD\SHEETS\RH\BUTLER-BOYD\C10.TYPSECTIONS-BNDX00000132.DWG

REGISTERED PROFESSIONAL ENGINEER
OREGON
SEPT. 11, 2018
CONOR R. COSTIGAN
EXPIRES: 12/31/2027

BEND BIKEWAYS NO. 1TBKE
BUTLER MARKET/BOYD ACRES INTERSECTION IMPROVEMENTS
TYPICAL SECTIONS

CITY OF BEND — DESCHUTES COUNTY, OREGON

REVISIONS:

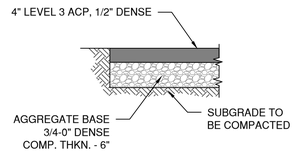
DAVID EVANS AND ASSOCIATES INC.
2843 NW Lolo Dr., Suite 275
Bend, Oregon 97703
Phone: 541.389.7614

DESIGNED BY: CRCO
DRAWN BY: CRCO
SCALE: N.T.S.
FILE: C10TYPSECTIONS-BNDX00000132.DWG
DATE: 6/19/26

VERIFY SCALES
0 — 1"
BAR EQUALS ONE INCH ON ORIGINAL DRAWING

SHEET: TYP3

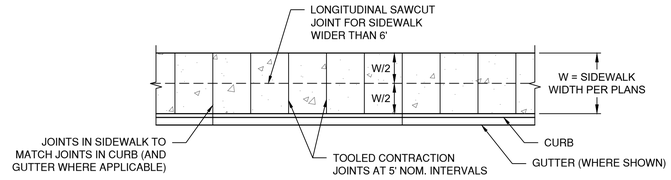
COB # 1TBKE



ASPHALT DRIVEWAY PAVEMENT SECTION

DRIVEWAY PAVEMENT SECTIONS
NOT TO SCALE

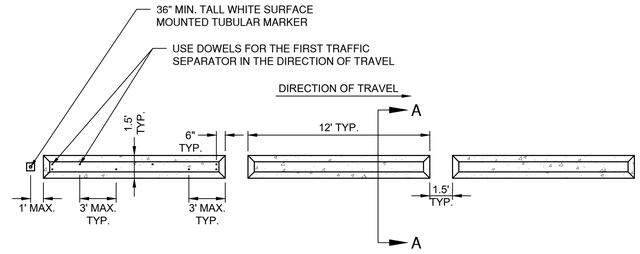
1
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NOTE:
FOR DETAILS NOT SHOWN,
SEE COB STD. DWG. R-4B.

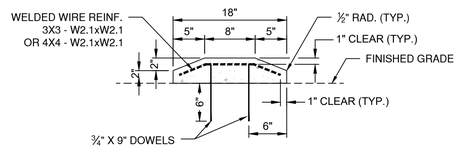
CONCRETE SIDEWALK WITH SAWCUT JOINT
NOT TO SCALE

2
-



NOTE:
FOR DETAILS NOT SHOWN,
SEE COB STD. DWG. R-46A.

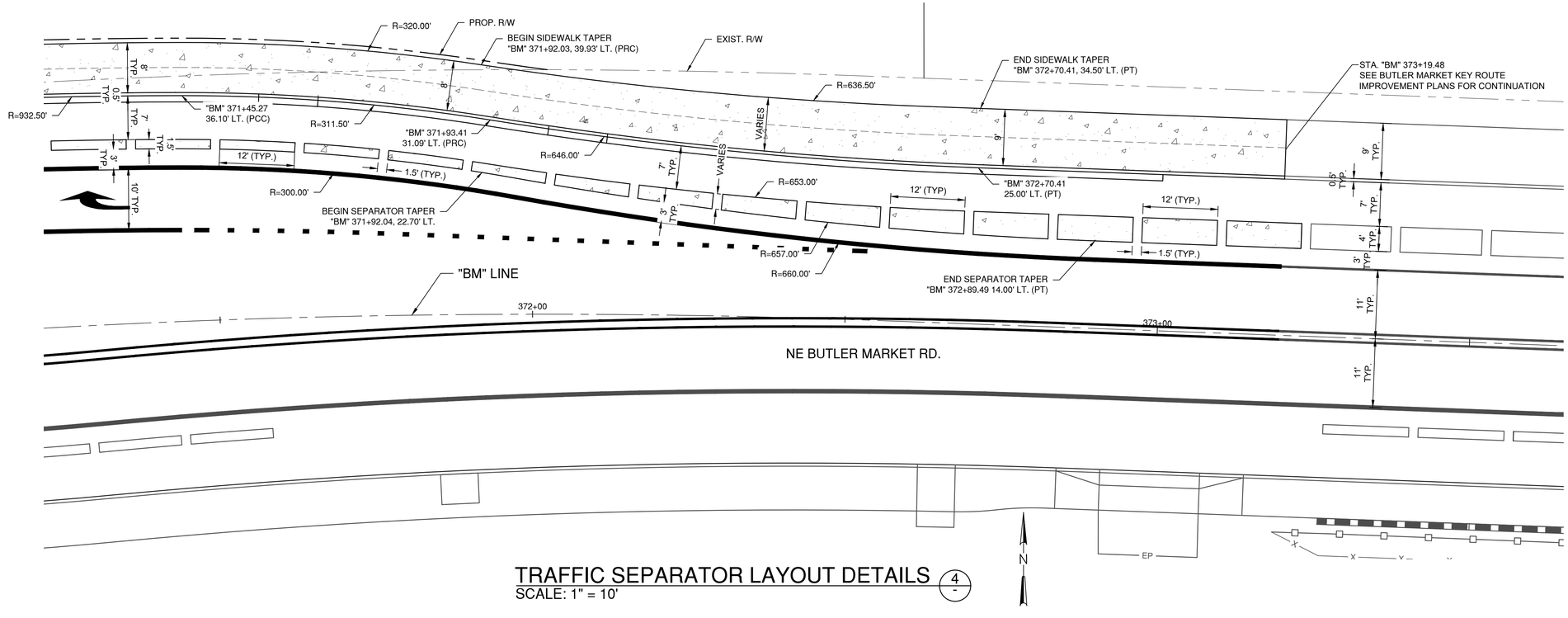
LAYOUT DETAILS



SECTION A-A

TRAFFIC SEPARATOR DETAILS
NOT TO SCALE

3
-



TRAFFIC SEPARATOR LAYOUT DETAILS
SCALE: 1" = 10'

4
-

P:\B\BNDX00000132\0400CAD\SHEETS\RH\BUTLER-BOYD\C30_DETAILS-BNDX00000132.DWG

REGISTERED PROFESSIONAL ENGINEER
OREGON
SEPT. 11, 2018
CONOR R. COSTIGAN
EXPIRES: 12/31/2027

BEND BIKEWAYS NO. 1TBKE
BUTLER MARKET/BOYD ACRES INTERSECTION IMPROVEMENTS
DETAILS

CITY OF BEND — DESCHUTES COUNTY, OREGON

REVISIONS:

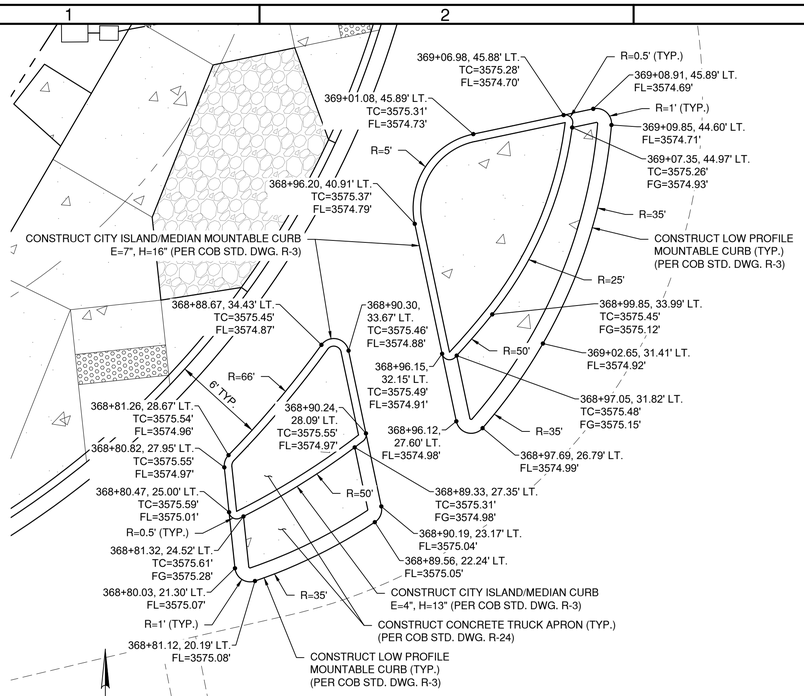
DAVID EVANS AND ASSOCIATES INC.
2843 NW Lolo Dr., Suite 275
Bend, Oregon 97703
Phone: 541.389.7614

DESIGNED BY: CRCO
DRAWN BY: CRCO
SCALE: AS SHOWN
FILE: C30_DETAILS-BNDX00000132.DWG
DATE: 6/19/26

VERIFY SCALES
0 1"
BAR EQUALS ONE INCH
ON ORIGINAL DRAWING

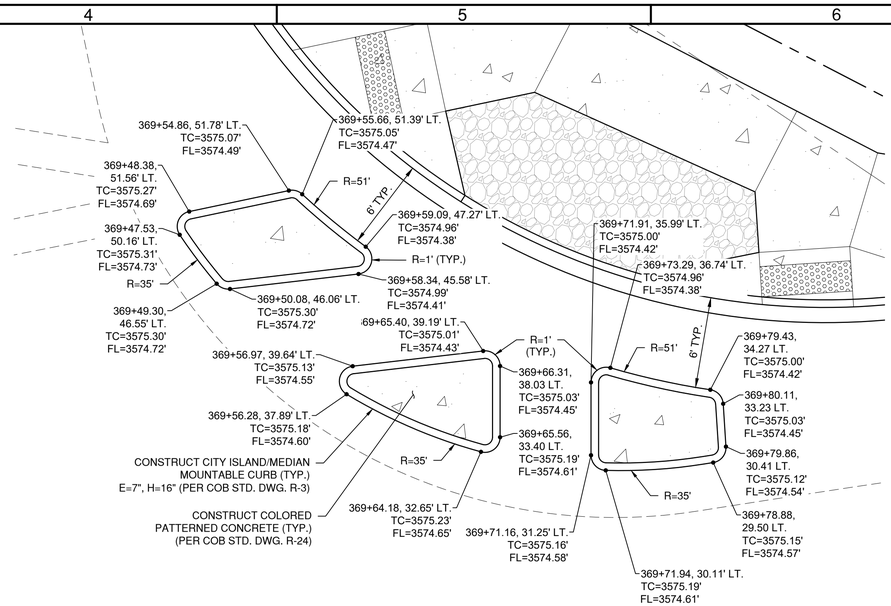
SHEET:
RD1

COB # 1TBKE



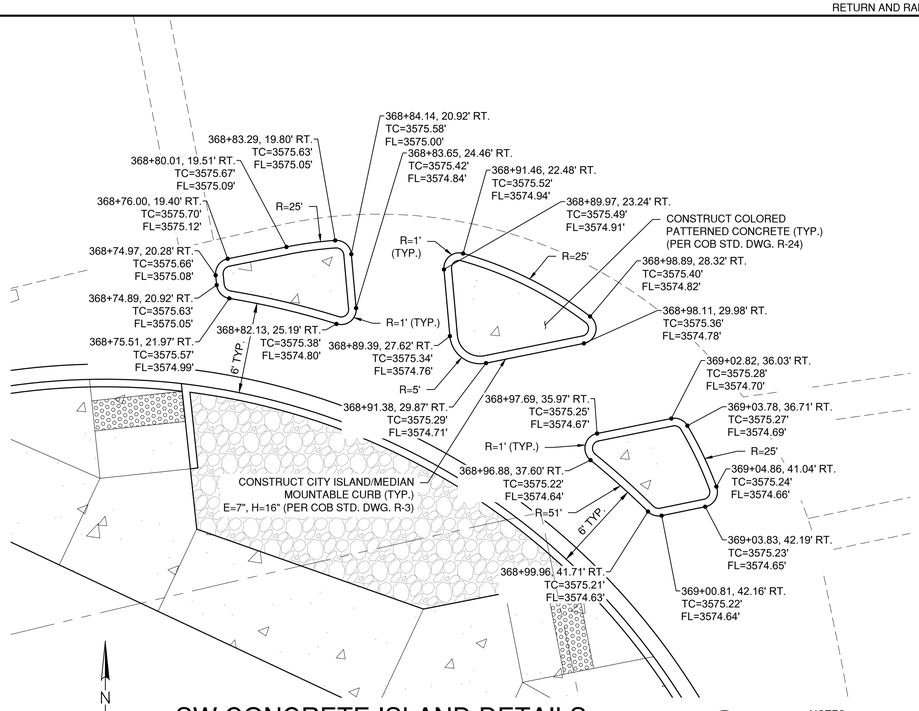
NW MOUNTABLE TRUCK APRON DETAILS (1)
SCALE: 1" = 5'

NOTES:
1. STATION AND OFFSETS SHOWN ARE FROM THE "BM" LINE.
2. SEE GR SHEETS FOR CURB RETURN AND RAMP DETAILS.



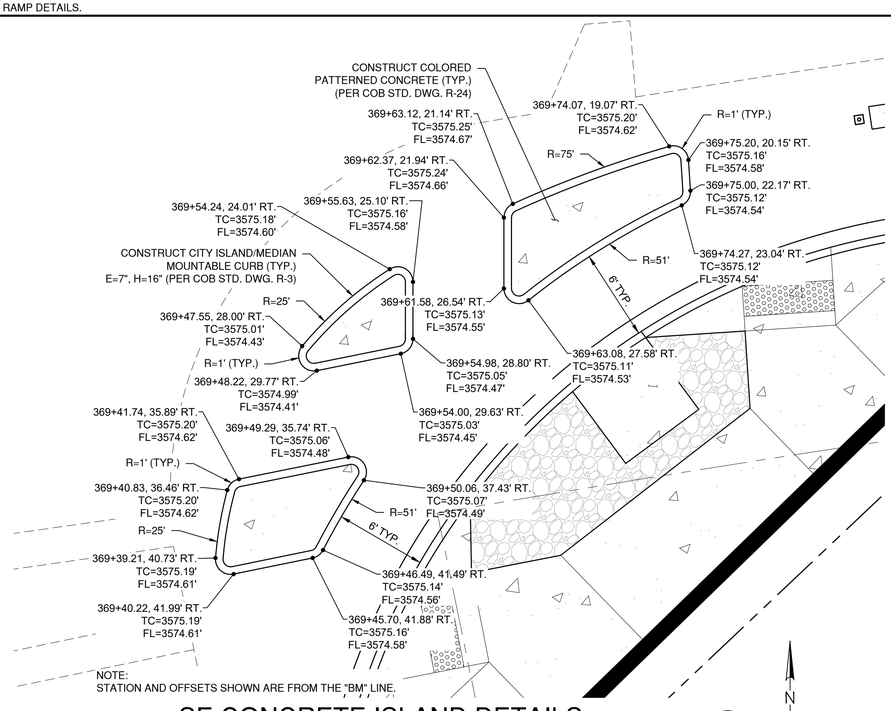
NE CONCRETE ISLAND DETAILS (2)
SCALE: 1" = 5'

NOTES:
1. STATION AND OFFSETS SHOWN ARE FROM THE "BM" LINE.
2. SEE GR SHEETS FOR CURB RETURN AND RAMP DETAILS.



SW CONCRETE ISLAND DETAILS (3)
SCALE: 1" = 5'

NOTES:
1. STATION AND OFFSETS SHOWN ARE FROM THE "BM" LINE.
2. SEE GR SHEETS FOR CURB RETURN AND RAMP DETAILS.



SE CONCRETE ISLAND DETAILS (4)
SCALE: 1" = 5'

NOTES:
1. STATION AND OFFSETS SHOWN ARE FROM THE "BM" LINE.
2. SEE GR SHEETS FOR CURB RETURN AND RAMP DETAILS.

REGISTERED PROFESSIONAL ENGINEER
OREGON
SEPT. 11, 2018
CONOR R. COSTIGAN
EXPIRES: 12/31/2027

BEND BIKEWAYS NO. 1TBKE
BUTLER MARKET/BOYD ACRES INTERSECTION IMPROVEMENTS
DETAILS

CITY OF BEND — DESCHUTES COUNTY, OREGON

REVISIONS:

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Bend, Oregon 97703
Phone: 541.389.7614

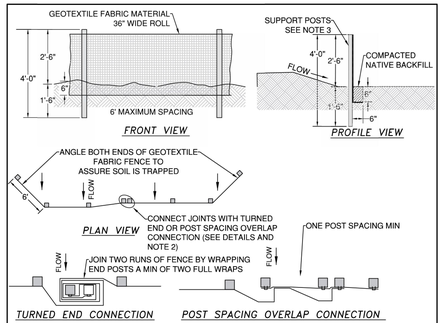
DESIGNED BY: CRCO
DRAWN BY: CRCO
SCALE: AS SHOWN
FILE: C30_DETAILS-BNDX00000132.DWG
DATE: 6/19/26

VERIFY SCALES
0 1"
BAR EQUALS ONE INCH ON ORIGINAL DRAWING

SHEET: RD2

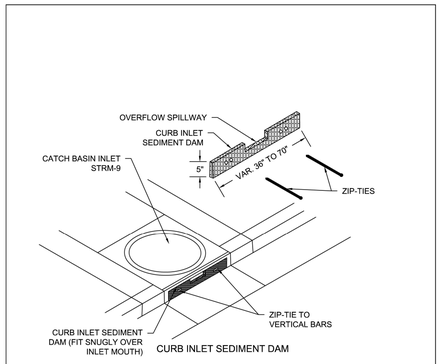
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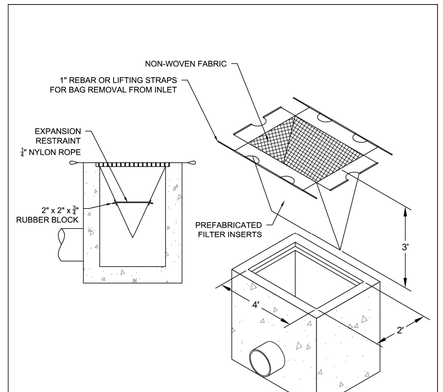
NOTES:
1. FABRIC WITHOUT SEWN-IN SLEEVES IS NOT RECOMMENDED. IF USED, INSTALL FENCE POSTS PER MANUFACTUER RECOMMENDATIONS.
2. THE GEOTEXTILE FABRIC SHALL BE PURCHASED IN A CONTINUOUS ROLL CUT TO THE LENGTH OF THE BARRIER TO AVOID USE OF JOINTS. WHEN JOINTS ARE NECESSARY, GEOTEXTILE SHALL BE SPLICED TOGETHER AT A SUPPORT POST UTILIZING A TURNED END OR POST SPACING OVERLAP CONNECTION.
3. THE FENCE POSTS SHALL BE SPACED A MAXIMUM OF 6 FEET APART AND INSTALLED INTO THE GROUND 8 INCHES MIN. FENCE POSTS SHALL BE 2" X 2" FIR, PINE, OR STEEL. THE GEOTEXTILE FABRIC FENCE SHALL BE INSTALLED TO FOLLOW THE SLOPE CONTOURS, TO MAXIMIZE PONDING EFFICIENCY WHERE FEASIBLE.
4. BURY BOTTOM OF THE GEOTEXTILE FABRIC 6 INCHES BELOW GRADE. BACKFILL AND COMPACT.
5. POSTS SHALL BE INSTALLED WITHIN THE SLEEVE ON THE UPHILL SIDE GEOTEXTILE FABRIC.
6. GEOTEXTILE FABRIC FENCE SHALL BE REMOVED WHEN IT HAS SERVED ITS USEFUL PURPOSE, BUT NOT BEFORE THE UPSLOPE AREA HAS BEEN PERMANENTLY PROTECTED AND STABILIZED.
7. GEOTEXTILE FABRIC FENCES SHALL BE INSPECTED BY APPLICANT/CONTRACTOR AFTER EACH RAIN OR SNOW EVENT AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.
8. MAXIMUM RECOMMENDED FENCE WIDTH IS 500 FEET. MAXIMUM TRIBUTARY AREA IS 0.25 ACRE PER 100' OF FENCE. MAXIMUM RECOMMENDED SLOPE LENGTH IS 100'.

DRAWN: AJD		CITY OF BEND	STANDARD DRAWING 710 NW WALL ST., BEND, OREGON 97701	SCALE: NTS
DIV: EROSION				DATE: 01/31/2022
REV	DATE	CITY OF BEND	SEDIMENT FENCE DETAIL	APPR:
				STD DWG: E-1



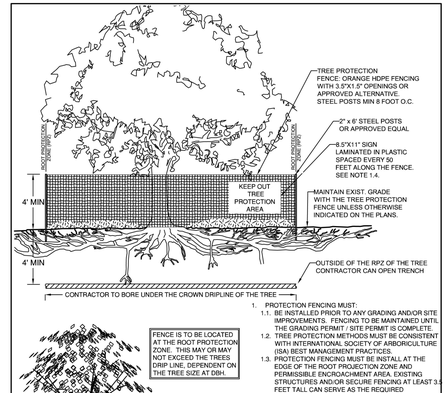
NOTES:
1. INSTALL SEDIMENT DAM ACCORDING TO MANUFACTURE'S RECOMMENDATION. ENDS SHALL NOT EXTEND BEYOND THE MOUNT OF THE INLET.
2. SEDIMENT DAMS ARE REQUIRED TO BE ACCOMPANIED BY ADDITIONAL BMPS TO PREVENT THE POTENTIAL OF SEDIMENTS ENTERING PROJECT STORM SYSTEMS.
3. INSPECTION & MAINTENANCE:
   3.1. INSPECT DAMS WEEKLY AND DAILY DURING STORM EVENTS.
   3.2. CLEAN, OR REPLACE, DAMS WHEN DEBRIS HAS REACH A HEIGHT OF 2 INCHES.
   3.3. CONTRACTOR IS RESPONSIBLE FOR REMOVING DAMS AND PROPERLY DISPOSING OF ALL MATERIALS ONCE THE PROJECT HAS BEEN PERMANENTLY STABILIZED.

DRAWN: CJH		CITY OF BEND	STANDARD DRAWING 710 NW WALL ST., BEND, OREGON 97701	SCALE: NTS
DIV: EROSION				DATE: 11/01/2024
REV	DATE	CITY OF BEND	CURB INLET PROTECTION	APPR:
				STD DWG: E-2A



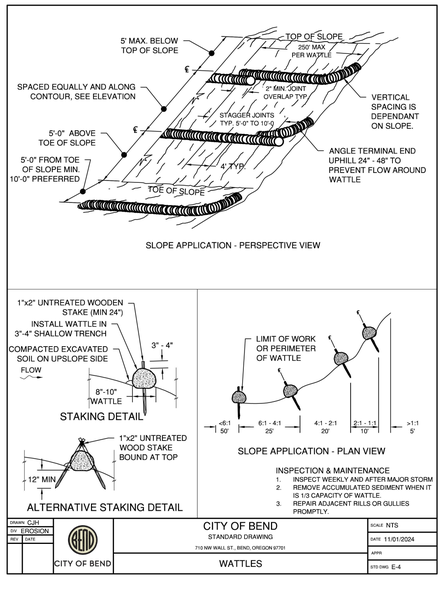
NOTES:
1. INSTALL PRE-FABRICATED FILTER INSERTS ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
2. FIELD FABRICATED INSERTS ARE NOT PERMITTED.
3. PRE-FABRICATED INSERTS WITH A PROVISION FOR OVERFLOW ARE REQUIRED AND ARE TO BE ACCOMPANIED BY ADDITIONAL BMPS TO PREVENT THE POTENTIAL OF SEDIMENTS ENTERING PROJECT STORM SYSTEMS.
4. PAIR WITH THE CURB LINE SEDIMENT ATTENUATEOR (SEE E-2C) AS REQUIRED.
5. INSPECT & MAINTENANCE:
   5.1. INSPECT WEEKLY AND DAILY DURING STORM EVENTS.
   5.2. CLEAN, OR REPLACE, INSERTS WHEN 50% OF THE SUMP AREA HAS FILLED WITH DEBRIS.
   5.3. CONTRACTOR IS RESPONSIBLE FOR REMOVING INSERTS AND PROPERLY DISPOSING OF ALL MATERIALS ONCE THE PROJECT HAS BEEN PERMANENTLY STABILIZED.

DRAWN: CJH		CITY OF BEND	STANDARD DRAWING 710 NW WALL ST., BEND, OREGON 97701	SCALE: NTS
DIV: EROSION				DATE: 11/01/2024
REV	DATE	CITY OF BEND	GRATED INLET PREFABRICATED FILTER INSERT	APPR:
				STD DWG: E-2B



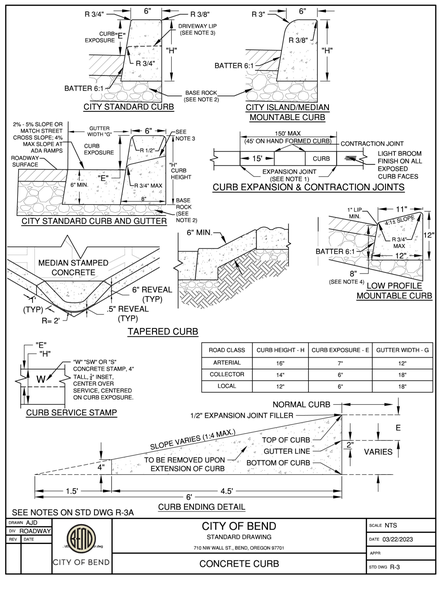
1. PROTECTION FENCING MUST:
   1.1. BE INSTALLED PRIOR TO ANY GRADING AND/OR SITE IMPROVEMENTS. FENCING TO BE MAINTAINED UNTIL THE GRADING PERMIT / SITE PERMIT IS COMPLETE.
   1.2. TREE PROTECTION METHODS MUST BE CONSISTENT WITH INTERNATIONAL SOCIETY OF ARBORICULTURE (ISA) BEST MANAGEMENT PRACTICES.
   1.3. PROTECTION FENCING MUST BE INSTALL AT THE EDGE OF THE ROOT PROJECTION ZONE AND PERMISSIBLE ENCROACHMENT AREA. EXISTING STRUCTURES AND/OR SECURE FENCING AT LEAST 3.5 FEET TALL CAN SERVE AS THE REQUIRED PROTECTION FENCING.
   1.4. SIGNAGE DESIGNATING THE PROTECTION ZONE AND PENALTIES FOR VIOLATIONS MUST BE SECURED ON EACH FENCE AS REQUIRED BY THE BDC.
   1.5. FENCING IS TO BE INSPECTED WEEKLY OR AFTER HIGH WINDS. REPAIR AS NEEDED TO ENSURE CONFORMANCE.
2. ANY LANDSCAPING OR IRRIGATION APPROVED WITHIN THE ROOT PROTECTION ZONE MAY BE INSTALLED BEFORE OR AFTER THE REMOVAL OF THE PROTECTION FENCING AND MUST NO DISTURB EXISTING TREES, INCLUDING ROOTS, WITHIN THE ROOT PROTECTION ZONE.
3. NO EQUIPMENT SHALL OPERATE INSIDE THE PROTECTION FENCING AREA WITHIN THE FENCING WILL NOT BE USED FOR STAGING OR STORAGE.

DRAWN: CJH		CITY OF BEND	STANDARD DRAWING 710 NW WALL ST., BEND, OREGON 97701	SCALE: NTS
DIV: EROSION				DATE: 11/01/2024
REV	DATE	CITY OF BEND	TREE/VEGETATION PROTECTION FENCING	APPR:
				STD DWG: E-3

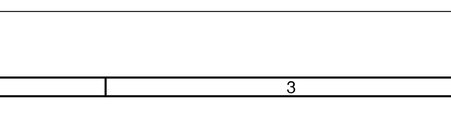


INSPECTION & MAINTENANCE
1. INSPECT WEEKLY AND AFTER MAJOR STORM
2. REMOVE ACCUMULATED SEDIMENT WHEN IT IS 1/3 CAPACITY OF WATTLE.
3. REPAIR ADJACENT RILLS OR GULLIES PROMPTLY.

DRAWN: CJH		CITY OF BEND	STANDARD DRAWING 710 NW WALL ST., BEND, OREGON 97701	SCALE: NTS
DIV: EROSION				DATE: 11/01/2024
REV	DATE	CITY OF BEND	WATTLES	APPR:
				STD DWG: E-4

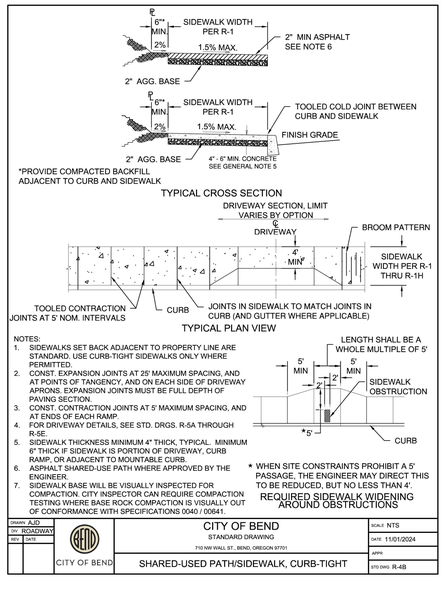


ROAD CLASS	CURB HEIGHT - H	CURB EXPOSURE - E	GUTTER WIDTH - G
ARTERIAL	16"	7"	12"
COLLECTOR	14"	6"	18"
LOCAL	12"	6"	18"



SEE NOTES ON STD DWG R-3A

DRAWN: AJD		CITY OF BEND	STANDARD DRAWING 710 NW WALL ST., BEND, OREGON 97701	SCALE: NTS
DIV: ROADWAY				DATE: 03/22/2023
REV	DATE	CITY OF BEND	CONCRETE CURB	APPR:
				STD DWG: R-3



NOTES:
1. SIDEWALKS SET BACK ADJACENT TO PROPERTY LINE ARE STANDARD. USE CURB-TIGHT SIDEWALKS ONLY WHERE PERMITTED.
2. CONST. EXPANSION JOINTS AT 25' MAXIMUM SPACING, AND AT POINTS OF TANGENCY, AND ON EACH SIDE OF DRIVEWAY APRONS. EXPANSION JOINTS MUST BE FULL DEPTH OF PAVING SECTION.
3. CONST. CONTRACTION JOINTS AT 5' MAXIMUM SPACING, AND AT ENDS OF EACH RAMP.
4. FOR DRIVEWAY DETAILS, SEE STD. DRGS. R-5A THROUGH R-5E.
5. SIDEWALK THICKNESS MINIMUM 4" THICK, TYPICAL. MINIMUM 6" THICK IF SIDEWALK IS PORTION OF DRIVEWAY, CURB RAMP, OR ADJACENT TO MOUNTABLE CURB.
6. ASPHALT SHARED-USE PATH WHERE APPROVED BY THE ENGINEER.
7. SIDEWALK BASE WILL BE VISUALLY INSPECTED FOR COMPACTION. CITY INSPECTOR CAN REQUIRE COMPACTION TESTING WHERE BASE ROCK COMPACTION IS VISUALLY OUT OF CONFORMANCE WITH SPECIFICATIONS 0040 / 00641.

* WHEN SITE CONSTRAINTS PROHIBIT A 5' PASSAGE, THE ENGINEER MAY DIRECT THIS TO BE REDUCED, BUT NO LESS THAN 4'.

REQUIRED SIDEWALK WIDENING AROUND OBSTRUCTIONS

DRAWN: CJH		CITY OF BEND	STANDARD DRAWING 710 NW WALL ST., BEND, OREGON 97701	SCALE: NTS
DIV: ROADWAY				DATE: 11/01/2024
REV	DATE	CITY OF BEND	SHARED-USED PATH/SIDEWALK, CURB-TIGHT	APPR:
				STD DWG: R-4B

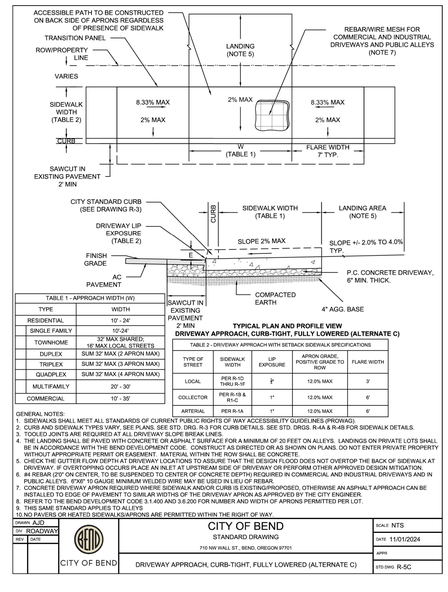


TABLE 1 - APPROACH WIDTH (W)	
TYPE	WIDTH
RESIDENTIAL	10' - 24'
SINGLE FAMILY	10'-24'
TOWNHOME	32' MAX SHARED; 16' MAX LOCAL STREETS
DUPLEX	SUM 32' MAX (2 APRON MAX)
TRIPLEX	SUM 32' MAX (3 APRON MAX)
QUADPLEX	SUM 32' MAX (4 APRON MAX)
MULTIFAMILY	20' - 30'
COMMERCIAL	10' - 35'

TYPICAL PLAN AND PROFILE VIEW
DRIVEWAY APPROACH, CURB-TIGHT, FULLY LOWERED (ALTERNATE C)

TABLE 2 - DRIVEWAY APPROACH WITH SETBACK SIDEWALK SPECIFICATIONS					
TYPE OF STREET	SIDEWALK WIDTH	LIP EXPOSURE	APRON GRADE, POSITIVE GRADE TO ROW	FLARE WIDTH	
LOCAL	PER R-1/2 THRU R-1F	8"	12.0% MAX	3'	
COLLECTOR	PER R-1B & R-1C	1"	12.0% MAX	6'	
ARTERIAL	PER R-1A	1"	12.0% MAX	6'	

GENERAL NOTES:
1. SIDEWALKS SHALL MEET ALL STANDARDS OF CURRENT PUBLIC RIGHTS OF WAY ACCESSIBILITY GUIDELINES (PROWAG).
2. CURB AND SIDEWALK TYPES VARY, SEE PLANS. SEE STD. DRG. R-3 FOR CURB DETAILS. SEE STD. DRGS. R-4A & R-4B FOR SIDEWALK DETAILS.
3. TOOLED JOINTS ARE REQUIRED AT ALL DRIVEWAY SLOPE BREAK LINES.
4. THE LANDING SHALL BE PAVED WITH CONCRETE OR ASPHALT SURFACE FOR A MINIMUM OF 20 FEET ON ALLEYS. LANDINGS ON PRIVATE LOTS SHALL BE IN ACCORDANCE WITH THE BEND DEVELOPMENT CODE. CONSTRUCT AS DIRECTED OR AS SHOWN ON PLANS. DO NOT ENTER PRIVATE PROPERTY WITHOUT APPROVAL FROM THE PROPERTY OWNER. MAINTAIN FLOW SYSTEM IN THE CONSTRUCTION AREA.
5. CHECK THE GUTTER FLOW DEPTH AT DRIVEWAY LOCATIONS TO ENSURE THE 100-YEAR FLOOD DOES NOT OVERTOP THE BACK OF SIDEWALK AT DRIVEWAY. IF OVERTOPPING OCCURS PLACE AN INLET AT UPSTREAM SIDE OF DRIVEWAY OR PERFORM OTHER APPROVED DESIGN MITIGATION.
6. #4 REBAR (20" ON CENTER, TO BE SUSPENDED TO CENTER OF CONCRETE DEPTH) REQUIRED IN COMMERCIAL AND INDUSTRIAL DRIVEWAYS AND IN PUBLIC ALLEYS. 6"X6" 10 GAUGE MINIMUM WELDED WIRE MAY BE USED IN LIEU OF REBAR.
7. CONCRETE DRIVEWAY APRON REQUIRED WHERE SIDEWALK AND/OR CURB IS EXISTING/PROPOSED, OTHERWISE AN ASPHALT APPROACH CAN BE INSTALLED TO EDGE OF PAVEMENT TO SIMILAR WIDTHS OF THE DRIVEWAY APRON AS APPROVED BY THE CITY ENGINEER.
8. REFER TO THE BEND DEVELOPMENT CODE 3.1.400 AND 3.6.200 FOR NUMBER AND WIDTH OF APRONS PERMITTED PER LOT.
9. THIS SAME STANDARD APPLIES TO ALLEYS
10. NO PAVERS OR HEATED SIDEWALKS/APRONS ARE PERMITTED WITHIN THE RIGHT OF WAY.

DRAWN: AJD		CITY OF BEND	STANDARD DRAWING 710 NW WALL ST., BEND, OREGON 97701	SCALE: NTS
DIV: ROADWAY				DATE: 11/01/2024
REV	DATE	CITY OF BEND	DRIVEWAY APPROACH, CURB-TIGHT, FULLY LOWERED (ALTERNATE C)	APPR:
				STD DWG: R-5C

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REGISTERED PROFESSIONAL ENGINEER
84394PE
OREGON
SEPT. 11, 2018
CONOR R. COSTIGAN
EXPIRES: 12/31/2027

BEND BIKEWAYS NO. 1TBKE
BUTLER MARKET/BOYD ACRES INTERSECTION IMPROVEMENTS
CITY OF BEND STD. DWGS.
CITY OF BEND DESCHUTES COUNTY, OREGON

REVISIONS:

DAVID EVANS AND ASSOCIATES INC.
2843 NW Lolo Dr., Suite 275
Bend, Oregon 97703
Phone: 541.389.7614

DESIGNED BY: CRCO
DRAWN BY: CRCO
SCALE: N.T.S.
FILE: C30.DETAILS.BNDX00000132.DWG
DATE: 6/19/26

VERIFY SCALES
0 1"
BAR EQUALS ONE INCH ON ORIGINAL DRAWING

SHEET:
RD3

COB # 1TBKE

GENERAL NOTES :

1. CITY OF BEND STD DWGS R-6, R-6A, R-6B, AND R-6C ARE INTENDED AS A SUMMARY OF PROWAG REQUIREMENTS. SEE CURRENT PROWAG GUIDELINES FOR COMPLETE REQUIREMENTS.
2. SLOPES USED FOR DESIGN ARE TYPICALLY LESS THAN THE MAXIMUMS TO ALLOW FOR CONSTRUCTION TOLERANCES. RECOMMENDED DESIGN SLOPES ARE AS FOLLOWS:

PROWAG MAX. SLOPE	DESIGN MAX. SLOPE
1:10 (10%)	9.5%
1:12 (8.33%)	7.5%
1:20 (5.0%)	4.5%
1:50 (2%)	1.5%

3. GRADE BREAKS ARE NOT PERMITTED ON THE SURFACE OF CURB RAMPS, BLENDED TRANSITIONS, LANDINGS, AND GUTTER AREAS WITHIN THE PEDESTRIAN ACCESS ROUTE.
4. THE COUNTER SLOPE OF THE GUTTER OR STREET AT THE FOOT OF A CURB RAMP, LANDING, OR BLENDED TRANSITION SHALL BE 5% MAXIMUM.
5. SURFACES OF CURB RAMPS, BLENDED TRANSITIONS, AND LANDINGS SHALL COMPLY WITH R302.7. GRATINGS, ACCESS COVERS, AND OTHER APPURTENANCES SHALL NOT BE LOCATED ON CURB RAMPS, LANDINGS, BLENDED TRANSITIONS AND GUTTERS WITHIN THE PEDESTRIAN ACCESS ROUTE.
6. SURFACE DISCONTINUITIES SHALL NOT EXCEED 0.5 in. MAXIMUM. VERTICAL DISCONTINUITIES BETWEEN 0.25 in. AND 0.5 in. MAXIMUM SHALL BE BEVELED AT 1:2 MINIMUM. THE BEVEL SHALL BE APPLIED ACROSS THE ENTIRE LEVEL CHANGE. SEE PROWAG R302.7.2.
7. WHERE SIDEWALKS ARE CONSTRUCTED OUTSIDE THE RIGHT OF WAY, A PUBLIC ACCESS EASEMENT MUST BE RECORDED OVER THE PRIVATE PROPERTY ENCROACHMENT.
8. 6 INCHES OF COMMERCIAL GRADE CONCRETE PER CITY SPEC 00440 AND 4 INCHES OF STATE SPEC AGGREGATE PER CITY SPEC 00640/00641 IS REQUIRED FOR CONSTRUCTION OF CURB RAMPS, FLARES, AND LANDINGS.
9. DETECTABLE WARNING SURFACES COMPLYING WITH PROWAG R305 SHALL BE PROVIDED, WHERE A CURB RAMP, LANDING, OR BLENDED TRANSITION CONNECTS TO A STREET.
10. DETECTABLE WARNING SURFACES SHALL EXTEND 24 in. MINIMUM IN THE DIRECTION OF TRAVEL AND THE FULL WIDTH OF THE CURB RAMP (EXCLUSIVE OF FLARES), THE LANDING, OR THE BLENDED TRANSITION.
11. THE ROWS OF TRUNCATED DOMES IN A DETECTABLE WARNING SURFACE SHALL BE ALIGNED TO BE PERPENDICULAR OR RADIAL TO THE GRADE BREAK BETWEEN THE RAMP, LANDING, OR BLENDED TRANSITION AND THE STREET.
12. THE CLEAR WIDTH OF LANDINGS BLENDED TRANSITIONS, AND CURB RAMPS, EXCLUDING FLARES, SHALL BE 4.0 FT. MINIMUM.

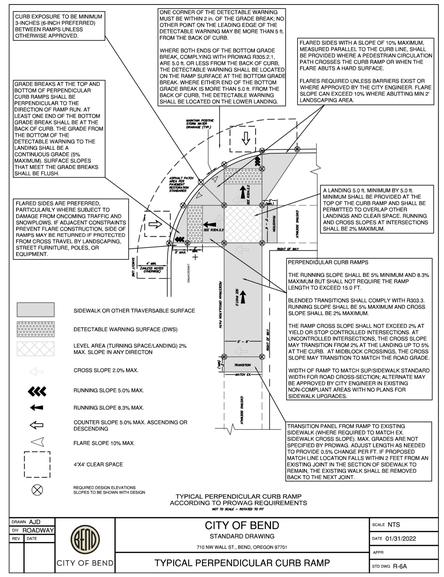
DRAWN: AJD | DIV: ROADWAY | REV | DATE

CITY OF BEND

CITY OF BEND
STANDARD DRAWING
710 NW WALL ST., BEND, OREGON 97701

CURB RAMP GENERAL NOTES

SCALE: NTS | DATE: 01/31/2022 | APPR: | STD DWG: R-6



TYPICAL PERPENDICULAR CURB RAMP
ACCORDING TO PROWAG REQUIREMENTS

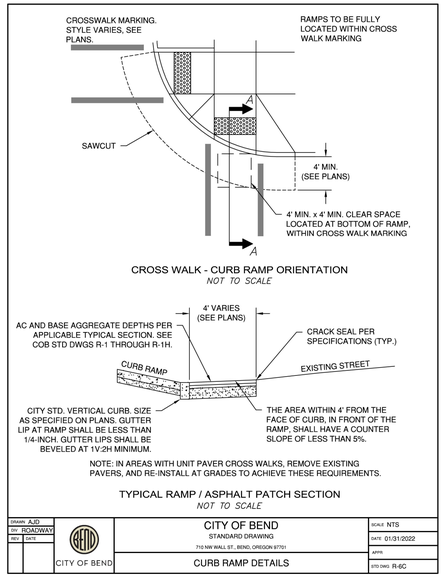
DRAWN: AJD | DIV: ROADWAY | REV | DATE

CITY OF BEND

CITY OF BEND
STANDARD DRAWING
710 NW WALL ST., BEND, OREGON 97701

TYPICAL PERPENDICULAR CURB RAMP

SCALE: NTS | DATE: 01/31/2022 | APPR: | STD DWG: R-6A



CROSS WALK - CURB RAMP ORIENTATION
NOT TO SCALE

NOTE: IN AREAS WITH UNIT PAVER CROSS WALKS, REMOVE EXISTING PAVERS, AND RE-INSTALL AT GRADES TO ACHIEVE THESE REQUIREMENTS.

TYPICAL RAMP / ASPHALT PATCH SECTION
NOT TO SCALE

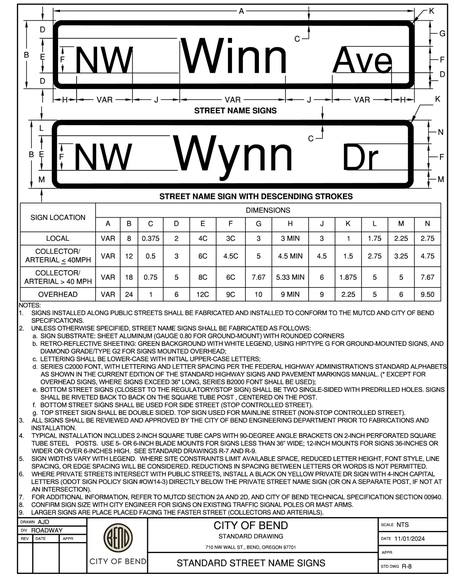
DRAWN: AJD | DIV: ROADWAY | REV | DATE

CITY OF BEND

CITY OF BEND
STANDARD DRAWING
710 NW WALL ST., BEND, OREGON 97701

CURB RAMP DETAILS

SCALE: NTS | DATE: 01/31/2022 | APPR: | STD DWG: R-6C



STREET NAME SIGNS

STREET NAME SIGN WITH DESCENDING STROKES

SIGN LOCATION	DIMENSIONS												
	A	B	C	D	E	F	G	H	J	K	L	M	N
LOCAL	VAR	8	0.375	2	4C	3C	3	3 MIN	3	1	1.75	2.25	2.75
COLLECTOR/ ARTERIAL ≤ 40MPH	VAR	12	0.5	3	6C	4.5C	5	4.5 MIN	4.5	1.5	2.75	3.25	4.75
COLLECTOR/ ARTERIAL > 40 MPH	VAR	18	0.75	5	8C	6C	7.67	5.33 MIN	6	1.875	5	5	7.67
OVERHEAD	VAR	24	1	6	12C	9C	10	9 MIN	9	2.25	5	6	9.50

NOTES:
1. SIGNS INSTALLED ALONG PUBLIC STREETS SHALL BE FABRICATED AND INSTALLED TO CONFORM TO THE MUTCD AND CITY OF BEND SPECIFICATIONS.
2. UNLESS OTHERWISE SPECIFIED, STREET NAME SIGNS SHALL BE FABRICATED AS FOLLOWS:
   a. SIGN SUBSTRATE: SHEET ALUMINUM (GAUGE 0.80 FOR GROUND-MOUNT) WITH ROUNDED CORNERS
   b. RETRO-REFLECTIVE SHEETING: GREEN BACKGROUND WITH WHITE LEGEND, USING HIP/TYPE G FOR GROUND-MOUNTED SIGNS, AND DIAMOND GRADE/TYPE G2 FOR SIGNS MOUNTED OVERHEAD;
   c. LETTERING SHALL BE LOWER-CASE WITH INITIAL UPPER-CASE LETTERS;
   d. SERIES C2000 FONT, WITH LETTERING AND LETTER SPACING PER THE FEDERAL HIGHWAY ADMINISTRATION'S STANDARD ALPHABETS AS SHOWN IN THE CURRENT EDITION OF THE STANDARD HIGHWAY SIGNS AND PAVEMENT MARKINGS MANUAL. (* EXCEPT FOR OVERHEAD SIGNS, WHERE SIGNS EXCEED 36" LONG, SERIES B2000 FONT SHALL BE USED);
   e. BOTTOM STREET SIGNS (CLOSEST TO THE REGULATORY/STOP SIGN) SHALL BE TWO SINGLE-SIDED WITH PREDRILLED HOLES. SIGNS SHALL BE RIVETED BACK TO BACK ON THE SQUARE TUBE POST , CENTERED ON THE POST.
   f. BOTTOM STREET SIGNS SHALL BE USED FOR SIDE STREET (STOP CONTROLLED STREET).
   g. TOP STREET SIGN SHALL BE DOUBLE SIDED. TOP SIGN USED FOR MAINLINE STREET (NON-STOP CONTROLLED STREET).
3. ALL SIGNS SHALL BE REVIEWED AND APPROVED BY THE CITY OF BEND ENGINEERING DEPARTMENT PRIOR TO FABRICATIONS AND INSTALLATION.
4. TYPICAL INSTALLATION INCLUDES 2-INCH SQUARE TUBE CAPS WITH 90-DEGREE ANGLE BRACKETS ON 2-INCH PERFORATED SQUARE TUBE STEEL POSTS. USE 5- OR 6-INCH BLADE MOUNTS FOR SIGNS LESS THAN 36" WIDE; 12-INCH MOUNTS FOR SIGNS 36-INCHES OR WIDER OR OVER 6-INCHES HIGH. SEE STANDARD DRAWINGS R-7 AND R-9.
5. SIGN WIDTH MAY VARY WITH LEGEND. WHERE SITE CONSTRAINTS LIMIT AVAILABLE SPACE, REDUCED LETTER HEIGHT, FONT STYLE, LINE SPACING, OR EDGE SPACING WILL BE CONSIDERED. REDUCTIONS IN SPACING BETWEEN LETTERS OR WORDS IS NOT PERMITTED.
6. WHERE PRIVATE STREETS INTERSECT WITH PUBLIC STREETS, INSTALL A BLACK ON YELLOW PRIVATE OR SIGN WITH 4-INCH CAPITAL LETTERS (ODOT SIGN POLICY SIGN #OW14-3) DIRECTLY BELOW THE PRIVATE STREET NAME SIGN (OR ON A SEPARATE POST, IF NOT AT AN INTERSECTION).
7. FOR ADDITIONAL INFORMATION, REFER TO MUTCD SECTION 2A AND 2D, AND CITY OF BEND TECHNICAL SPECIFICATION SECTION 00940.
8. CONFIRM SIGN SIZE WITH CITY ENGINEER FOR SIGNS ON EXISTING TRAFFIC SIGNAL POLES OR MAST ARMS.
9. LARGER SIGNS ARE PLACE PLACED FACING THE FASTER STREET (COLLECTORS AND ARTERIALS).

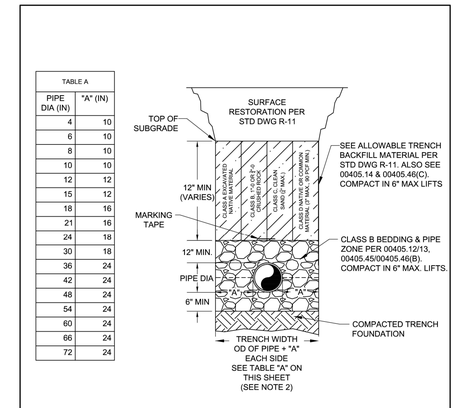
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CITY OF BEND

CITY OF BEND
STANDARD DRAWING
710 NW WALL ST., BEND, OREGON 97701

STANDARD STREET NAME SIGNS

SCALE: NTS | DATE: 01/31/2024 | APPR: | STD DWG: R-8



NOTES:
1. ALL COMPACTION TO COMPLY WITH SPECIFICATION SECTION 00330.43 AND 00405.46(c).
2. A FRANCHISE UTILITY THAT IS A SINGLE CONDUIT AND IS 4 INCHES IN DIAMETER OR LESS MAY BE CENTERED IN A 12-INCH WIDE TRENCH PROVIDED THAT THE TRENCH CAN ACCOMMODATE THE COMPACTION EQUIPMENT. TRENCH PATCH SHALL BE IN ACCORDANCE WITH STD DWG R-11 WHERE THE TEE PATCH SHALL NOT BE LESS THAN 12 INCHES ON BOTH SIDES OF THE TRENCH. OVERALL WIDTH MAY BE REDUCED FROM 4 FEET, BUT IN NO CIRCUMSTANCES RESULT IN TEE PATCHES LESS THAN 12 INCHES AND AN OVERALL MINIMUM WIDTH OF 3 FEET.
3. CLASS E - CLSM, MAY BE ALLOWED FOR TRENCH BACKFILL WHERE COMPACTION CANNOT BE MET DUE TO THE PRESENCE OF EXISTING UTILITIES

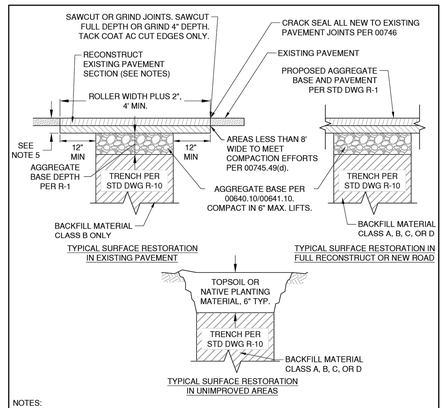
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CITY OF BEND

CITY OF BEND
STANDARD DRAWING
710 NW WALL ST., BEND, OREGON 97701

TYPICAL TRENCH SECTION

SCALE: NTS | DATE: 01/31/2022 | APPR: | STD DWG: R-10



NOTES:
1. SURFACE RESTORATION IN EXISTING PAVEMENT TO COMPLY WITH SPECIFICATION 00495.
2. UNIMPROVED AREA CONSISTS OF ANY PORTION OF THE ROW THAT HAS NOT BEEN IMPROVED TO A CITY STANDARD AND CONSISTS MOSTLY OF NATIVE VEGETATED AREAS. UNIMPROVED AREAS ALSO INCLUDE AREAS WITHIN THE LANDSCAPE STRIP AND PUEs.
3. ALL EXISTING AC OR PCC PAVEMENT SHALL BE SAWCUT PRIOR TO REPAVING. CONCRETE SHALL BE CUT AND REPLACED TO THE NEAREST JOINT(S).
4. CONCRETE PAVEMENT SHALL BE REPLACED WITH CONCRETE TO A MINIMUM THICKNESS OF 6" OR TO THE THICKNESS OF REMOVED PAVEMENT, WHICHEVER IS GREATER
5. PLACE ACP A MINIMUM THICKNESS PER R-1 OR TO THE THICKNESS OF REMOVED PAVEMENT, WHICHEVER IS GREATER. PLACE ACP IN 2" MAX LIFTS.

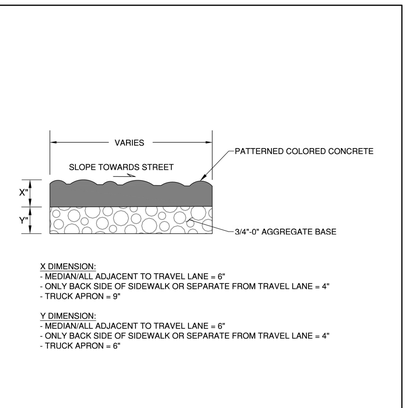
DRAWN: AJD | DIV: ROADWAY | REV | DATE

CITY OF BEND

CITY OF BEND
STANDARD DRAWING
710 NW WALL ST., BEND, OREGON 97701

TRENCH SURFACE RESTORATION

SCALE: NTS | DATE: 01/31/2022 | APPR: | STD DWG: R-11



X DIMENSION:
- MEDIAN/ALL ADJACENT TO TRAVEL LANE = 6"
- ONLY BACK SIDE OF SIDEWALK OR SEPARATE FROM TRAVEL LANE = 4"
- TRUCK APRON = 9"

Y DIMENSION:
- MEDIAN/ALL ADJACENT TO TRAVEL LANE = 6"
- ONLY BACK SIDE OF SIDEWALK OR SEPARATE FROM TRAVEL LANE = 4"
- TRUCK APRON = 6"

NOTE:
1. STAMPED CONCRETE SURFACE TEXTURE PATTERN SHALL BE BRICKFORM "FLAGSTONE" TM-700) WITH SAWCUT GROOVE JOINTS 1:3 CONCRETE DEPTH.
2. GLAZE AND SEAL PER MANUFACTURERS SPECS.
3. INTEGRAL COLOR: DAVIS SPANISH GOLD (3 LBS. #5084)
4. RELEASE COLOR: DAVIS DARK GREY (#860)

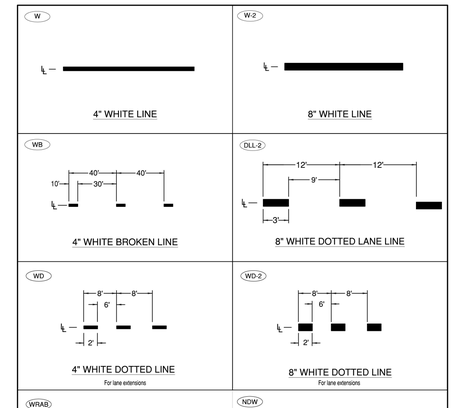
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CITY OF BEND

CITY OF BEND
STANDARD DRAWING
710 NW WALL ST., BEND, OREGON 97701

PATTERNED COLORED CONCRETE DETAIL

SCALE: NTS | DATE: 01/31/2022 | APPR: | STD DWG: R-24



DRAWN: AJD | DIV: ROADWAY | REV | DATE

CITY OF BEND

CITY OF BEND
STANDARD DRAWING
710 NW WALL ST., BEND, OREGON 97701

PAVEMENT MARKINGS - WHITE

SCALE: NTS | DATE: 01/31/2022 | APPR: | STD DWG: R-40

REGISTERED PROFESSIONAL ENGINEER
OREGON
SEPT. 11, 2018
CONOR R. COSTIGAN
EXPIRES: 12/31/2027

BEND BIKEWAYS NO. 1TBKE
BUTLER MARKET/BOYD ACRES INTERSECTION IMPROVEMENTS
CITY OF BEND STD. DWGS.
CITY OF BEND DESCHUTES COUNTY, OREGON

REVISIONS:

DAVID EVANS AND ASSOCIATES INC.
2843 NW Lolo Dr., Suite 275
Bend, Oregon 97703
Phone: 541.389.7614

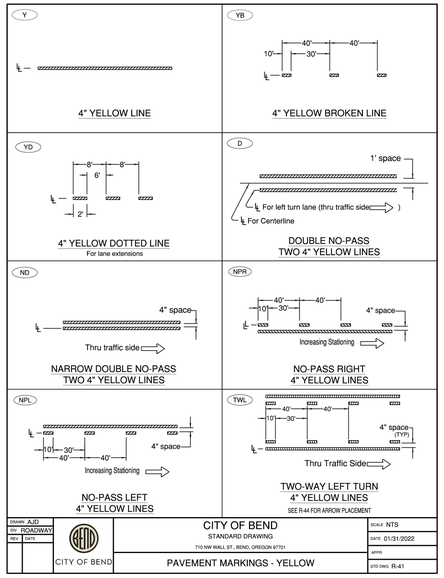
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FILE: C30.DETAILS.BNDX00000132.DWG
DATE: 6/19/26

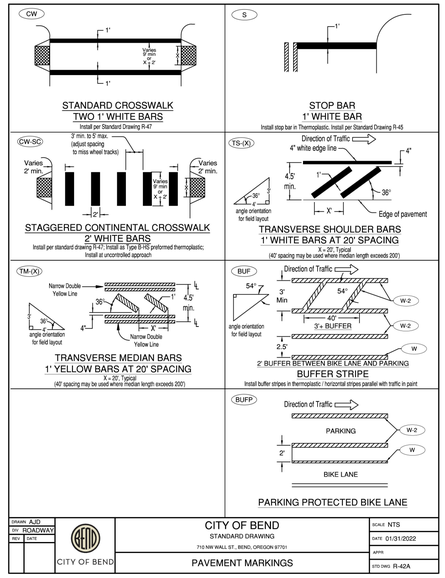
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BAR EQUALS ONE INCH ON ORIGINAL DRAWING

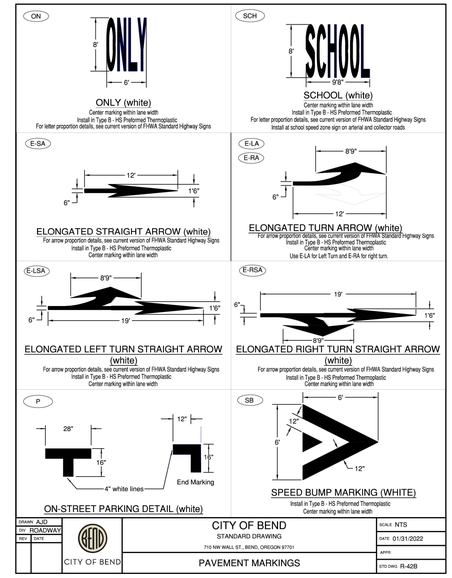
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RD4

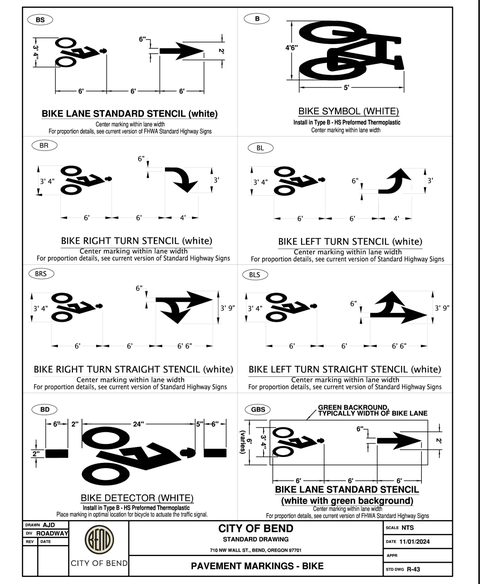
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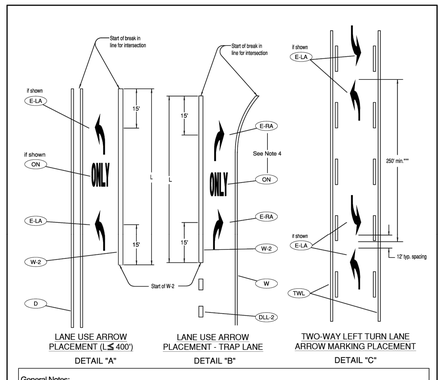
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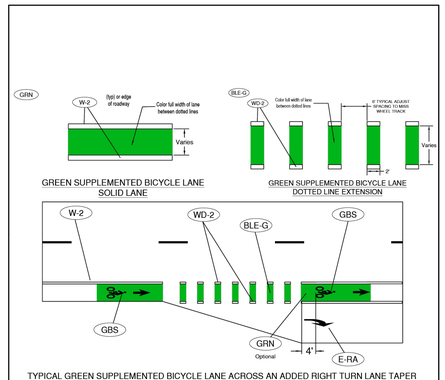


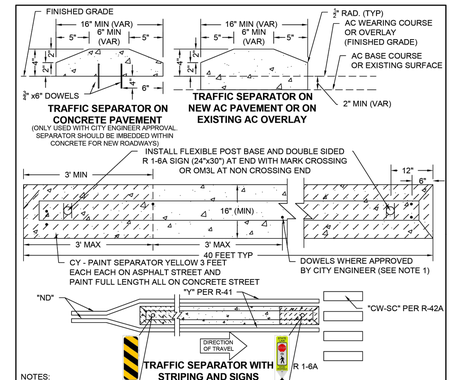


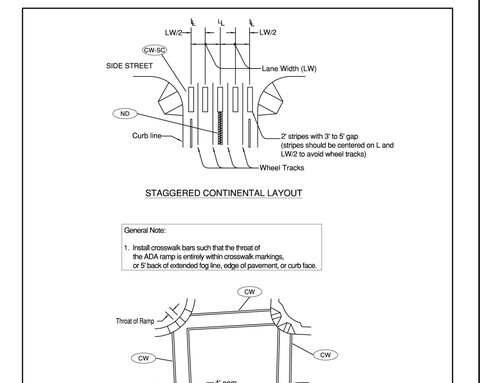












REGISTERED PROFESSIONAL ENGINEER
83894PE
OREGON
SEPT. 11, 2018
CONOR R. COSTIGAN
EXPIRES: 12/31/2027

BEND BIKEWAYS NO. 1TBKE
BUTLER MARKET/BOYD ACRES INTERSECTION IMPROVEMENTS
CITY OF BEND STD. DWGS.

CITY OF BEND _____ DESCHUTES COUNTY, OREGON

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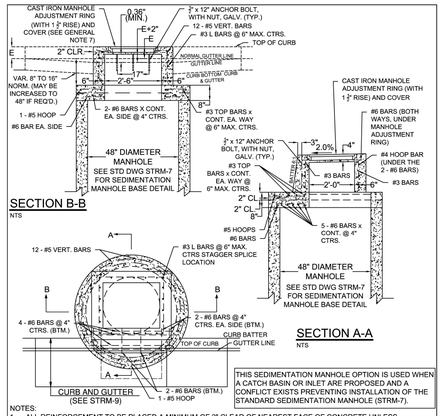
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DRAWN BY: CRCO
SCALE: N.T.S.
FILE: C30.DETAILS-BNDX00000132.DWG
DATE: 6/19/26

VERIFY SCALES
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BAR EQUALS ONE INCH ON ORIGINAL DRAWING

SHEET:
RD5

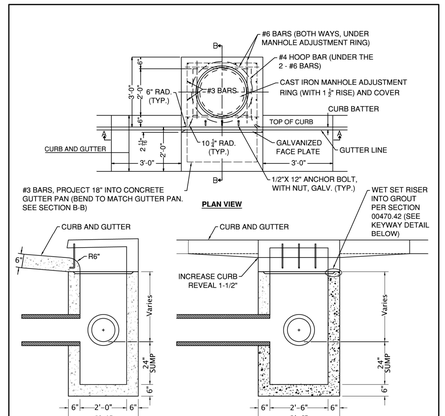
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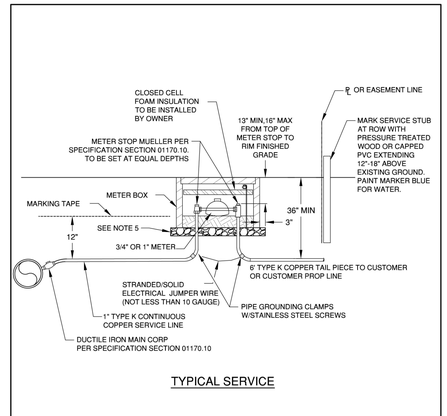
NOTES:
1. ALL REINFORCEMENT TO BE PLACED A MINIMUM OF 2" CLEAR OF NEAREST FACE OF CONCRETE UNLESS OTHERWISE SHOWN OR NOTED.
2. ALL PRECAST PRODUCTS SHALL CONFORM TO THE REQUIREMENTS OF ASTM C478.
3. ALL CONCRETE SHALL BE COMMERCIAL GRADE CONCRETE.
4. INLET TOP MAY BE CAST-IN-PLACE OR PRECAST. ALL PRECAST INLETS SHALL CONFORM TO REQUIREMENTS OF ASTM C913.
5. VARY ANCHOR BOLT LENGTH AND REINFORCING BAR PLACEMENT AS REQUIRED BY CURB EXPOSURE E.
6. SEE COB STD DWG R-3 FOR CURB DETAILS.
7. SEE ODOT STD DWG RD356 FOR MANHOLE ADJUSTMENT RING. SEE COB STD DWG STRM-8 FOR CAST IRON MANHOLE ADJUSTMENT RING AND COVER.
8. SUMP SIZE TO BE DESIGNED IN ACCORDANCE WITH COSM - 20 CF OF SUMP VOLUME FOR EACH 1.0 CFS DESIGN FLOW - NOT LESS THAN 48" DEPTH.

DRAWN: AJD	CITY OF BEND	STANDARD DRAWING	SCALE: NTS
DIV: STORM		710 NW WALL ST., BEND, OREGON 97701	DATE: 11/01/2024
REV: DATE:	CITY OF BEND	STORMWATER SEDIMENTATION MANHOLE - ALTERNATE	APPR:
			STD DWG: STRM-7A



NOTES:
1. REMOVE SUFFICIENT CURB TO POUR BACK WALL. TOP SECTION MAY BE POURED MONOLITHIC WITH SIDEWALK.
2. CURB INLETS TO BE USED ON ARTERIAL AND COLLECTOR ROADWAYS.
3. "E" = CURB EXPOSURE.
4. SEE COB STD DWG STRM-8 FOR CAST IRON MANHOLE ADJUSTMENT RING AND COVER.
5. ALL PIPE CONNECTIONS TO BE GROUTED PER SPECIFICATION SECTION 00470.40.

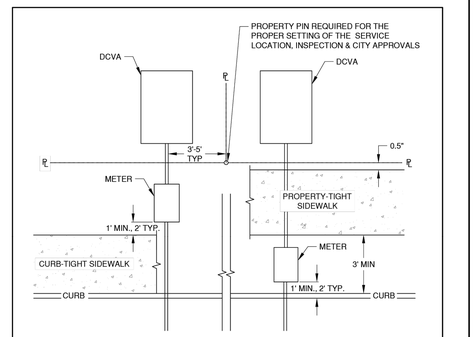
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DIV: STORM		710 NW WALL ST., BEND, OREGON 97701	DATE: 11/01/2024
REV: DATE:	CITY OF BEND	STANDARD CURB INLET	APPR:
			STD DWG: STRM-9



TYPICAL SERVICE

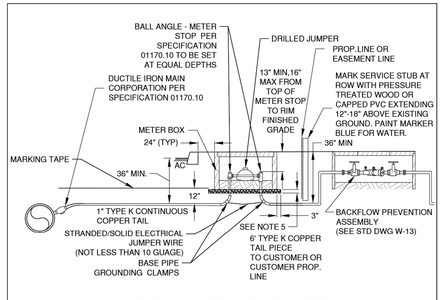
NOTES:
1. RESIDENTIAL METER BOXES SHALL BE SET PARALLEL W/THE CURB LINE AND SHALL NOT BE INSTALLED WITHIN SIDEWALK OR PAVED AREAS
2. JUMPER SIZE 1" METER SETTER - 1 1/4"x11" SCHEDULE 80 THREADED NIPPLE (DOMESTIC) DRILLED TO PREVENT FLOW
3. METERS ARE TO BE THE SAME SIZE AS THE SERVICE LINE OR ONE SIZE SMALLER.
4. IF AN EXISTING BOX, METER, OR HARDWARE WITHIN THE METER BOX DOES NOT MEET CURRENT CITY STANDARDS, CORRECTIONS OR REPAIRS SHALL BE MADE TO THE EXISTING SERVICE TO MEET CURRENT CITY STANDARDS PRIOR TO THE METER BEING SET.
5. METER SHALL BE SET ON 6" MIN CLASS B MATERIAL COMPACTED TO 95% OF MAXIMUM DENSITY.

DRAWN: AJD	CITY OF BEND	STANDARD DRAWING	SCALE: NTS
DIV: WATER		710 NW WALL ST., BEND, OREGON 97701	DATE: 11/01/2024
REV: DATE:	CITY OF BEND	3/4"-1" RESIDENTIAL METER SERVICE INSTALLATION	APPR:
			STD DWG: W-4A



NOTES:
1. COMMERCIAL METER BOXES SHALL BE INSTALLED PERPENDICULAR TO THE CURB LINE WITH DOUBLE CHECK VALVE ASSEMBLY TO BE LOCATED ON PRIVATE PROPERTY.
2. WATER METER BOXES SHALL BE LOCATED IN LANDSCAPE AREAS WHEN POSSIBLE, SEE STD DWG W-5E FOR LOCATING METER BOX IN HARD SURFACE.
3. SET WATER SERVICES A MINIMUM OF 10' FROM ALL SANITARY, FRANCHISE, STORM, AND ELECTRICAL SERVICES. ALL TREE WELLS SHALL BE A MINIMUM 6 FEET FROM THE METER BOX INSTALLATION.
4. BACKFLOW PREVENTION DEVICES SHALL BE INSTALLED ON PRIVATE PROPERTY.
5. IF AN EXISTING METER BOX, METER, OR HARDWARE WITHIN THE METER BOX DOES NOT MEET CURRENT CITY STANDARDS, CORRECTIONS OR REPAIRS SHALL BE MADE TO THE EXISTING SERVICE TO MEET CURRENT CITY STANDARDS PRIOR TO THE METER BEING SET.
6. METER BOX SHALL BE SET ON 6" MIN CLASS B MATERIAL COMPACTED TO 95% OF MAXIMUM DENSITY.

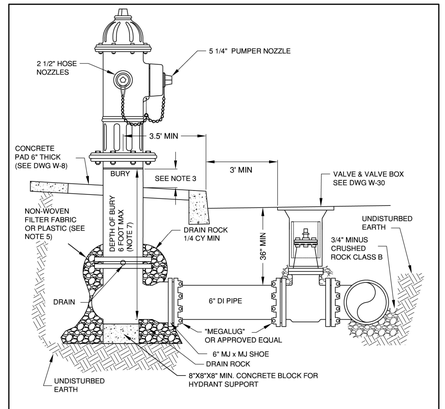
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DIV: WATER		710 NW WALL ST., BEND, OREGON 97701	DATE: 01/31/2022
REV: DATE:	CITY OF BEND	COMMERCIAL & IRR METER SERVICE INSTALLATION	APPR:
			STD DWG: W-5



TYPICAL 1" SERVICE WITH METER

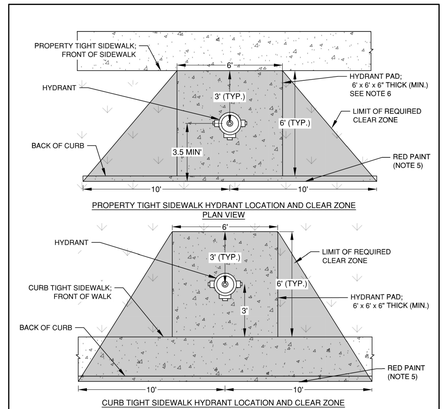
NOTES:
1. COMMERCIAL METERS NOT TO BE LESS THAN 1-INCH. METER SIZE TO MATCH SERVICE LINE SIZE.
2. COMMERCIAL METER BOXES SHALL BE INSTALLED PERPENDICULAR TO THE CURB LINE WITH DOUBLE CHECK VALVE ASSEMBLY TO BE LOCATED ON PRIVATE PROPERTY PER STD DWG W-5.
3. COMMERCIAL METERS WILL NOT BE SET UNTIL BACKFLOW PREVENTION ASSEMBLY IS IN PLACE.
4. IF AN EXISTING METER BOX, METER, OR HARDWARE WITHIN THE METER BOX DOES NOT MEET CURRENT CITY STANDARDS, CORRECTIONS OR REPAIRS SHALL BE MADE TO THE EXISTING SERVICE TO MEET CURRENT CITY STANDARDS PRIOR TO THE METER BEING SET.
5. METER BOX SHALL BE SET ON 6" MIN CLASS B MATERIAL COMPACTED TO 95% OF MAXIMUM DENSITY.

DRAWN: AJD	CITY OF BEND	STANDARD DRAWING	SCALE: NTS
DIV: WATER		710 NW WALL ST., BEND, OREGON 97701	DATE: 11/01/2024
REV: DATE:	CITY OF BEND	1" COMMERCIAL & IRR METER SERVICE INSTALLATION	APPR:
			STD DWG: W-5A



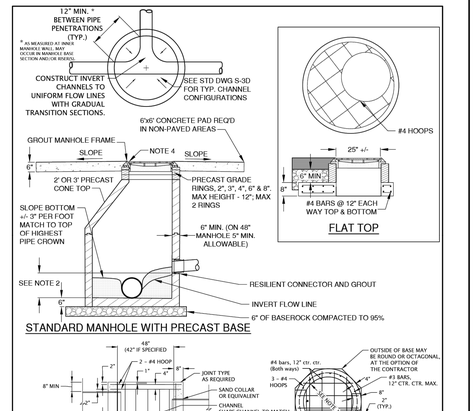
NOTES:
1. ALL PIPES SHALL HAVE RESTRAINED JOINTS.
2. MJ x MJ TEE OR MJxMJxSWIVEL (REQUIRES ENGINEER APPROVAL) WITH 6-INCH VALVE AT THE MAINLINE.
3. FINISH GRADE OF HYDRANT SHALL BE SET AT BURY LINE TO A MAXIMUM OF 3" BELOW BURY LINE FOR NEW INSTALLATION AND MAX OF 6" FOR RETROFITS. NO HYDRANT EXTENSIONS PERMITTED ON NEW INSTALLATIONS.
4. SET HYDRANT PLUMB. COMPACT ALL BACKFILL PER SPECIFICATIONS.
5. NON-WOVEN SEPARATION FILTER FABRIC OR PLASTIC (OSS TABLE 02320-4) INSTALLED BETWEEN UNDISTURBED EARTH AND DRAINROCK PRIOR TO BACKFILL.
6. HYDRANTS SHALL BE MANUFACTURER'S RED. NO OTHER COLOR IS PERMITTED.
7. USE 45 DEGREE OR 22.5 DEGREE BENDS TO ADJUST ACCORDINGLY TO ACHIEVE MAX DEPTH REQUIREMENT.

DRAWN: CJH	CITY OF BEND	STANDARD DRAWING	SCALE: NTS
DIV: WATER		710 NW WALL ST., BEND, OREGON 97701	DATE: 11/01/2024
REV: DATE:	CITY OF BEND	TYPICAL HYDRANT	APPR:
			STD DWG: W-7



NOTES:
1. THE CLEAR ZONE PROHIBITS PARKING, FENCES, TREES, RETAINING WALLS, OR OTHER STRUCTURES THAT COULD INTERFERE WITH OPERATION OF HYDRANT. GRASS, MULCH, BARKDUST, AND GROUND COVER IS PERMITTED.
2. PROPERTY OWNERS SHOULD BE AWARE THAT GROUND COVER COULD BE DAMAGED WHEN THE HYDRANT IS USED OR WHEN HYDRANT MAINTENANCE IS PERFORMED.
3. CONCRETE PADS ARE TO BE A MINIMUM OF 6" THICK AND BE POURED AND PLACED ON 2" MIN. COMPACTED BASE ROCK PER SECTION OSS 00405.00
4. THERE SHALL BE A MINIMUM 4 FOOT CLEAR TRAVEL WIDTH ON SIDEWALKS ADJACENT TO HYDRANTS.
5. THE CURB SHALL BE PAINTED RED FOR A TOTAL OF 20 FEET, CENTERED ON THE HYDRANT.
6. HYDRANT PAD TO EXTEND FROM CURB TO SIDEWALK WITH NO LANDSCAPE GAP UNLESS 5 FOOT MINIMUM LANDSCAPE WIDTH CAN BE PROVIDED.

DRAWN: CJH	CITY OF BEND	STANDARD DRAWING	SCALE: NTS
DIV: WATER		710 NW WALL ST., BEND, OREGON 97701	DATE: 11/01/2024
REV: DATE:	CITY OF BEND	HYDRANT LOCATION AND CLEAR ZONE	APPR:
			STD DWG: W-8



GENERAL NOTES:
1. MANHOLE DIAMETER PER CITY OF BEND DESIGN STANDARDS.
2. THE MAXIMUM INTERNAL DROP IS 1' FOR PIPES 8" IN DIAMETER OR LESS AND 2' FOR PIPES GREATER THAN 8" IN DIAMETER. SEE DWGS S-4 AND S-4A FOR LARGER DROPS.
3. ALL GROUT USED ON MANHOLES SHALL BE NON-SHRINK CONFORMING 02440.50.
4. A SINGLE RISER RING IS ALLOWED ON INITIAL INSTALLATION.

DRAWN: AJD	CITY OF BEND	STANDARD DRAWING	SCALE: NTS
DIV: SANITARY		710 NW WALL ST., BEND, OREGON 97701	DATE: 11/01/2024
REV: DATE:	CITY OF BEND	STANDARD SEWER/STORM MANHOLE	APPR:
			STD DWG: S-3C

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REGISTERED PROFESSIONAL ENGINEER
88394PE
OREGON
SEPT. 11, 2018
CONOR R. COSTIGAN
EXPIRES: 12/31/2027

BEND BIKEWAYS NO. 1TBKE
BUTLER MARKET/BOYD ACRES INTERSECTION IMPROVEMENTS
CITY OF BEND STD. DWGS.

CITY OF BEND ___ DESCHUTES COUNTY, OREGON

REVISIONS:

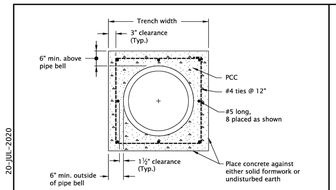
DAVID EVANS AND ASSOCIATES INC.
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Phone: 541.389.7614

DESIGNED BY: CRCO
DRAWN BY: CRCO
SCALE: N.T.S.
FILE: C30.DETAILS-BNDX00000132.DWG
DATE: 6/19/26

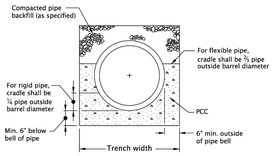
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BAR EQUALS ONE INCH ON ORIGINAL DRAWING

SHEET:
RD6

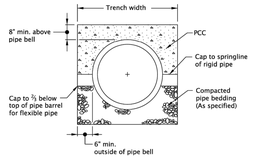
COB # 1TBKE



CONCRETE ENCASEMENT DETAIL

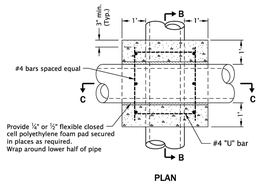


CRADLE DETAIL

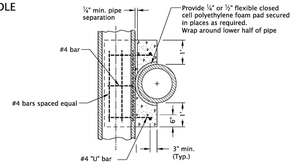


CAP DETAIL

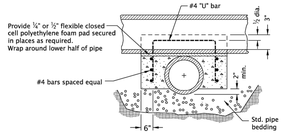
SADDLE



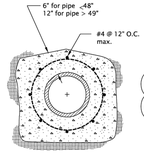
PLAN



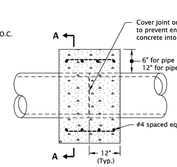
SECTION B-B



SECTION C-C



SECTION A-A



PLAN

REINFORCED CONCRETE COLLAR

GENERAL NOTES FOR ALL DETAILS ON THIS SHEET:

1. All concrete shall be commercial grade concrete.
2. End all reinforcing 3" clear of ground, forms or top surface, unless otherwise shown.
3. Trowel finish top surface of saddle, and cradle.
4. Reinforcement shall be # 4 vertical & horizontal bars as shown.
5. See Std. Dwg. RD300 for trench backfill, bedding, etc.
6. See Std. Dwg. RD336 for tracer wire details (When required).
7. Pipe over 72" diameter are structures, and are not applicable to this drawing.

The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without first consulting a Registered Professional Engineer.

All materials shall be in accordance with the current Oregon Standard Specifications.

OREGON STANDARD DRAWINGS

CONCRETE ENCASEMENT, CRADLE, AND CAP DETAILS

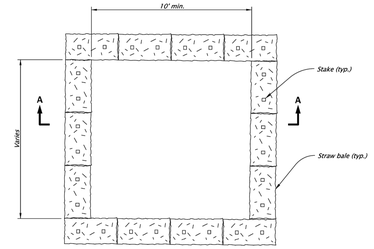
2024

DATE	REVISION DESCRIPTION

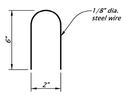
CALC BOOK NO. N/A — SDR DATE 14-JUL-2014 — **RD306**

RD306.dgn 20-JUL-2020

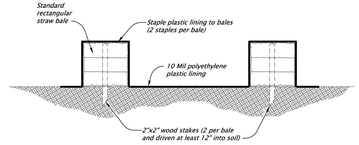
Effective Date: June 1, 2026 – November 30, 2026



PLAN



STAPLE DETAIL
NOT TO SCALE



SECTION A-A

CONCRETE TRUCK WASH OUT FACILITY
NOT TO SCALE

The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without first consulting a Registered Professional Engineer.

All materials shall be in accordance with the current Oregon Standard Specifications.

OREGON STANDARD DRAWINGS

CONCRETE TRUCK WASH OUT

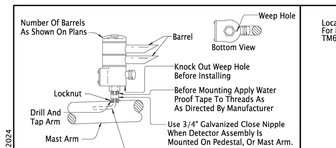
2024

DATE	REVISION DESCRIPTION

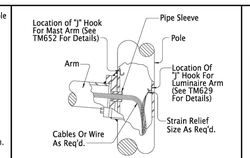
CALC BOOK NO. N/A — SDR DATE 20-JAN-2021 — **RD1070**

RD1070.dgn 20-JAN-2021

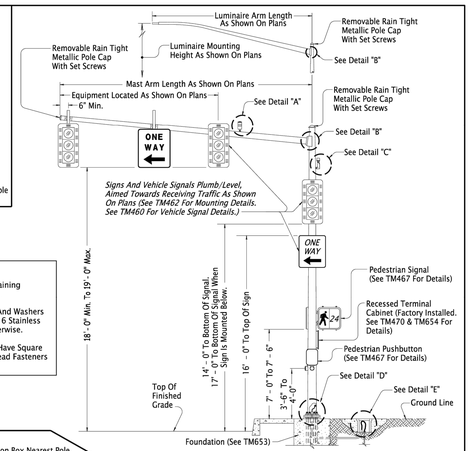
Effective Date: June 1, 2026 – November 30, 2026



DETAIL "A" FIRE PREEMPTION INSTALLATION
Emitter Units For Vehicles Provided By Others



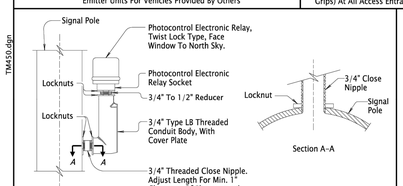
DETAIL "B" ARM CONNECTION
Manufacturer installed "J" Hooks In Poles For Strain Relief (Cable Grips) At All Access Entrances For Luminaire & Mast Arms



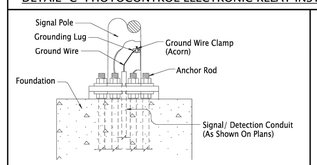
MAST ARM POLE

General Notes:

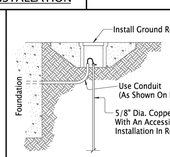
1. All Pole Entrances Containing Wiring Shall Be Smooth.
2. All Screws, Bolts, Nuts And Washers Shall Be Type 304 Or 316 Stainless Steel Unless Noted Otherwise.
3. Bolts And Screws Shall Have Square Or Hex Heads. Allen Head Fasteners Not Allowed.



DETAIL "C" PHOTOCONTROL ELECTRONIC RELAY INSTALLATION



DETAIL "D" INTERIOR GROUND INSTALLATION



DETAIL "E" GROUND ROD INSTALLATION
Not Applicable For Structure Mounted Poles. See Specifications.

The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without first consulting a Registered Professional Engineer.

All materials shall be in accordance with the current Oregon Standard Specifications.

OREGON STANDARD DRAWINGS

MAST ARM POLE DETAILS

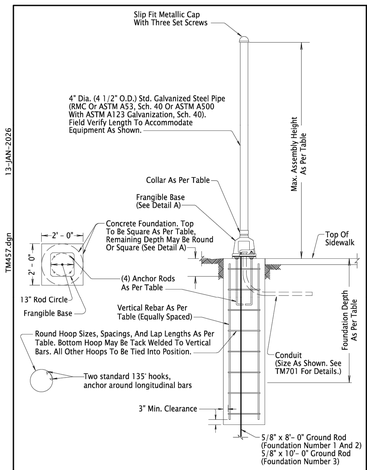
2024

DATE	REVISION DESCRIPTION
01-2023	CORRECTED STD. DWG. REFERENCE
07-2023	ADDED STD. DWG. REFERENCE
01-2024	MINOR TEXT REVISION FOR CONSISTENCY
07-2024	MINOR TEXT/ILLUSTRATION REVISIONS FOR CONSISTENCY & CLARITY

CALC BOOK NO. N/A — SDR DATE 12-JUL-2024 — **TM450**

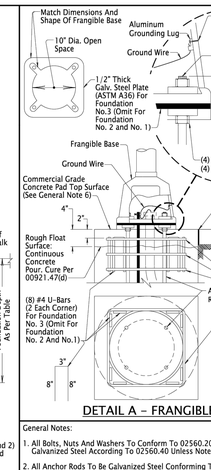
TM450.dgn 12-JUL-2024

Effective Date: June 1, 2026 – November 30, 2026



Pedestal Foundation Number	Max. Assembly Height	Foundation Depth	Depth of Square Foundation	Anchor Rods (ASTM F 1554 Grade 36)	Reinforcing Steel			
					Vertical Rebar	Hoop Size & Spacing	Hoop Lap Length	Collar
1	6' – 0"	2' – 0"	4"	3/4" x 18" x 4" (6" Thread)	N/A	N/A	N/A	N/A
2	10' – 0"	3' – 0"	4"					
3	20' – 6"	8' – 0"	12"	1" x 36" x 4" (6" Thread)	8–#6	#4–12"	6" with 2 hooks	Req'd

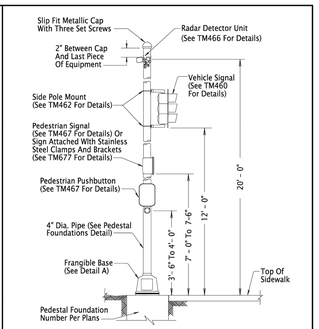
PEDESTAL FOUNDATIONS



DETAIL A – FRANGIBLE BASE

General Notes:

1. All Bolts, Nuts And Washers To Conform To 02560.20 And Be Galvanized Steel According To 02560.40 Unless Noted Otherwise.
2. All Anchor Rods To Be Galvanized Steel Conforming To 02560.30.
3. All Pole Entrances Containing Wiring To Be Smooth.
4. Install 1/4" To 3/8" Thick Preformed Expansion Joint Filler Around Footing In Sidewalk Areas.
5. The Entire Foundation To Be Located On A Single Plane With Less Than 2% Slope. The Flat Edge(s) Of The Foundation May Be Adjacent To The Turn Space, Back Of Walk, Or A Curb Ramp Grade Break Line.
6. Install Commercial Grade Concrete Pad Above Rough Float Surface With Top Surface Matching Sidewalk Grade And Less Than 1/4 " Vertical Exposure From Adjacent Grade. Clean Rough Float Surface Prior To Placing Fresh Concrete By Removing All Scum, Laitance, Loose Gravel, And Sediment. Pour During Sidewalk Installation After Installing Pipe And Appurtenances.
7. Non–Shrink High Early Strength Grout (Non–Ferrous) with 3/4" Diameter Pole Drain And A Minimum Strength of 5000 psi. Do Not Use Footing Concrete.



Notes:

1. Equipment Shown In the Assembly Detail Is An Example Of The Equipment That May Be Mounted. Install Equipment As Shown.
2. See TM492 For Ramp Meter Pedestal Mounting Details.
3. See TM493 For RRFB Pedestal Mounting Details.

TRAFFIC SIGNAL PEDESTAL ASSEMBLY

The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without first consulting a Registered Professional Engineer.

All materials shall be in accordance with the current Oregon Standard Specifications.

OREGON STANDARD DRAWINGS

PEDESTAL FOUNDATION AND TRAFFIC SIGNAL ASSEMBLY

2024

DATE	REVISION DESCRIPTION
01-2023	NOTE 5 – CHANGED TO 2% SLOPE. ADDED RAC AS PIPE OPTION. MINOR TEXT CHANGES FOR CLARITY.
07-2023	TYPO CORRECTION. UPDATED STANDARD DRAWING REFERENCES
07-2025	REVISED DIM. NOTE 4 EXPANSION JOINT THICKNESS
01-2026	REVISED "DETAIL A" TO INCLUDE ALUMINUM GROUNDING LUG

CALC BOOK NO. N/A — SDR DATE 13-JAN-2020 — **TM457**

TM457.dgn 13-JAN-2026

Effective Date: June 1, 2026 – November 30, 2026

P:\BNDX0000013\0400CAD\SHEETS\RH\BUTLER-BOYD\C31.DETAILS-BNDX00000132.DWG

REGISTERED PROFESSIONAL ENGINEER
88394PE
OREGON
SEPT. 11, 2018
CONOR R. COSTIGAN
EXPIRES: 12/31/2027

BEND BIKEWAYS NO. 1TBKE
BUTLER MARKET/BOYD ACRES INTERSECTION IMPROVEMENTS
ODOT STD. DWGS.

CITY OF BEND — DESCHUTES COUNTY, OREGON

REVISIONS:

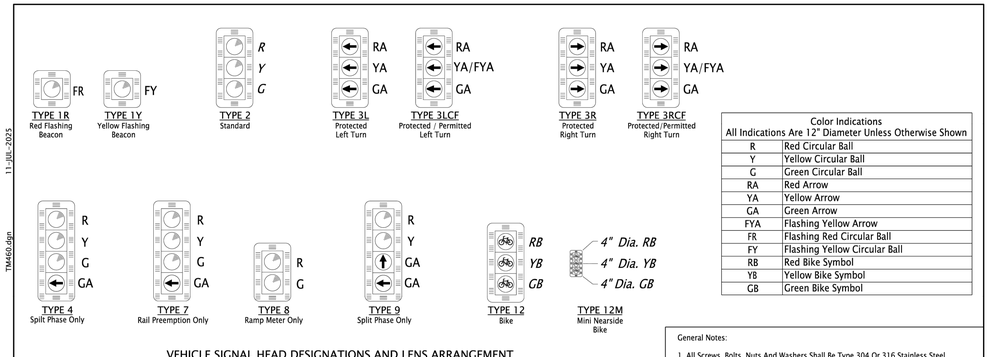
DAVID EVANS AND ASSOCIATES INC.
2843 NW Lolo Dr., Suite 275
Bend, Oregon 97703
Phone: 541.389.7614

DESIGNED BY: CRCO
DRAWN BY: CRCO
SCALE: AS SHOWN
FILE: C31 DETAILS BNDX00000132.DWG
DATE: 6/19/26

VERIFY SCALES
0 — 1"
BAR EQUALS ONE INCH ON ORIGINAL DRAWING

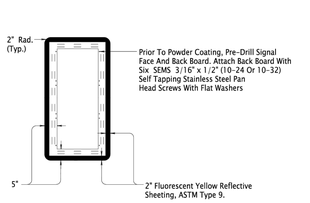
SHEET: RD7

COB # 1TBKE

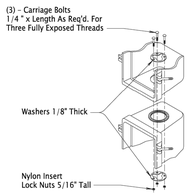


VEHICLE SIGNAL HEAD DESIGNATIONS AND LENS ARRANGEMENT

Color Indications All Indications Are 12" Diameter Unless Otherwise Shown	
R	Red Circular Ball
Y	Yellow Circular Ball
G	Green Circular Ball
RA	Red Arrow
YA	Yellow Arrow
GA	Green Arrow
FYA	Flashing Yellow Arrow
FR	Flashing Red Circular Ball
FY	Flashing Yellow Circular Ball
RB	Red Bike Symbol
YB	Yellow Bike Symbol
GB	Green Bike Symbol



BACKBOARD



VEHICLE HEAD ASSEMBLY

General Notes:

1. All Screws, Bolts, Nuts And Washers Shall Be Type 304 Or 316 Stainless Steel Unless Noted Otherwise.
2. Bolts And Screws Shall Have Square Or Hex Heads Unless Otherwise Noted. Allen Head Fasteners Not Allowed.
3. Assemble The Heavy Duty Polycarbonate Vehicle Signal, Visor, And Backboard With Bolted Connections, Stainless Steel Reinforcing Strips And Stainless Steel Plates.
4. Apply Anti-Seize Compound On All Hardware.
5. Drill A 1/4" Drain Hole In The Bottom Of The Screw Hole Plug Of The Vehicle Signal Head When Not Using The Bottom Opening For Mounting (e.g. Tenon & Plumbizer Mounted Vehicle Signals).

The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without first consulting a Registered Professional Engineer.

All materials shall be in accordance with the current Oregon Standard Specifications.

OREGON STANDARD DRAWINGS

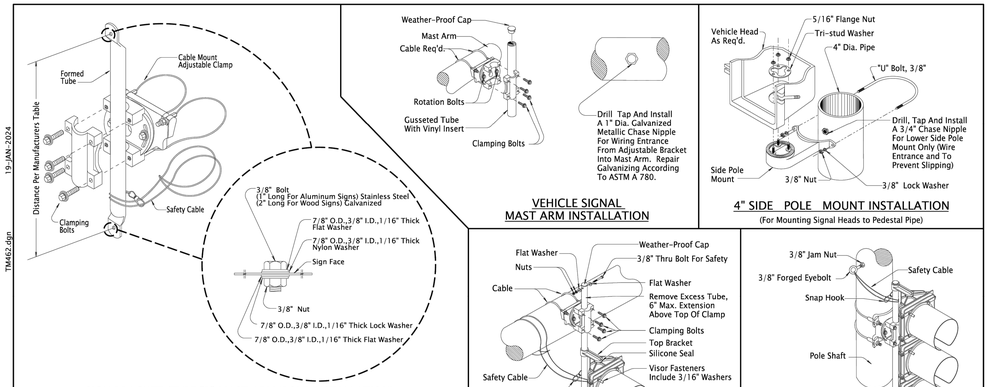
VEHICLE SIGNAL DETAILS

2024

DATE	REVISION DESCRIPTION
01-2024	ADDED TYPE 12 AND 12M, REMOVED TYPE 3LBF, 5, 6L, AND 10.
07-2024	ADDED GENERAL NOTE 4
07-2025	ADDED GENERAL NOTE 5

CALC. BOOK NO. N/A — SDR DATE: 11-JUL-2025 — **TM460**

Effective Date: June 1, 2026 – November 30, 2026



SIGN BRACKET (TYPE "B",MAST ARM/POLE INSTALLATION)

VEHICLE SIGNAL MAST ARM INSTALLATION

4" SIDE POLE MOUNT INSTALLATION
(For Mounting Signal Heads to Pedestal Pipe)

POLE SHAFT INSTALLATION

MOUNTING VEHICLE SIGNAL BETWEEN BRACKET ARMS

NOTE:
This Datail Can Be Applied To Any Signal Head Configuration. If The Extension Between The Center Line Of The Mast Arm And The Top Bracket Exceeds 18" Consult Engineer For Guidance.

MOUNTING VEHICLE SIGNAL ABOVE BRACKET ARMS

General Notes:

1. All Screws, Bolts, Nuts And Washers Shall BeType 304 Or 316 Stainless Steel Unless Noted Otherwise.
2. Bolts And Screws Shall Have Square Or Hex Heads. Allen Head Fasteners Not Allowed.
3. Follow Manufacturers Recommendations For Installation.

The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without first consulting a Registered Professional Engineer.

All materials shall be in accordance with the current Oregon Standard Specifications.

OREGON STANDARD DRAWINGS

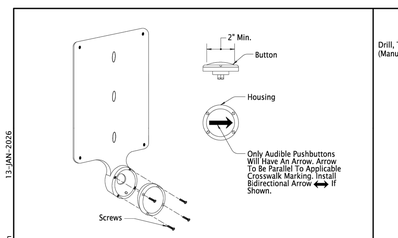
VEHICLE SIGNAL BRACKET & SIGN BRACKET (TYPE B) DETAILS

2024

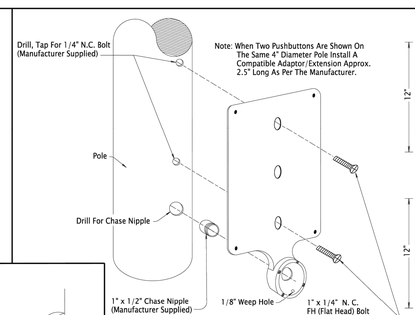
DATE	REVISION DESCRIPTION
01-2024	MINOR TEXT REVISION FOR CONSISTENCY.

CALC. BOOK NO. N/A — SDR DATE: 19-JAN-2024 — **TM462**

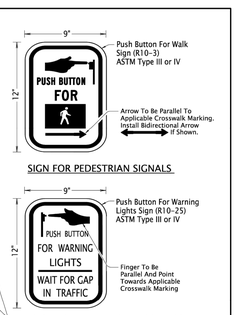
Effective Date: June 1, 2026 – November 30, 2026

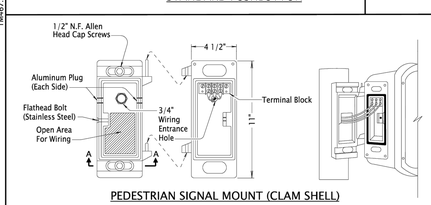


STANDARD PUSHBUTTON



STANDARD PUSHBUTTON STATION AND INSTRUCTION SIGN

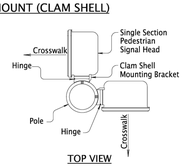




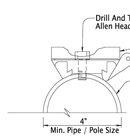
PEDESTRIAN SIGNAL MOUNT (CLAM SHELL)

NOTES:

1. Where Two Heads Are Side Mounted On 4" Conduit, Proper Clearance To Be Maintained To Allow Legend To Be Fully Visible.
2. Clam Shells To Be Orientated So That The Heads Can Be Opened For Maintenance. (Verify Hinge Placement Of Clamshell).



TOP VIEW



SECTION A-A

CLAM SHELL ORIENTATION

General Notes:

1. All Screws, Bolts, Nuts And Washers To Be Type 304 Or 316 Stainless Steel Unless Noted Otherwise.
2. Bolts And Screws To Have Square Or Hex Heads. Allen Head Fasteners Not Allowed.
3. Drill And Tap Pole As Per Orientation Shown On Plans.
4. Horizontal Reach To The Pushbutton To Be 10 Inches Maximum. See Plans Or Consult Engineer To Ensure Compliance.
5. Drill A 1/4" Drain Hole In the Bottom Of The Hex Head Pipe Plug Of The Pedestrian Signal Head When Not Using The Bottom Opening For Mounting.

The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without first consulting a Registered Professional Engineer.

All materials shall be in accordance with the current Oregon Standard Specifications.

OREGON STANDARD DRAWINGS

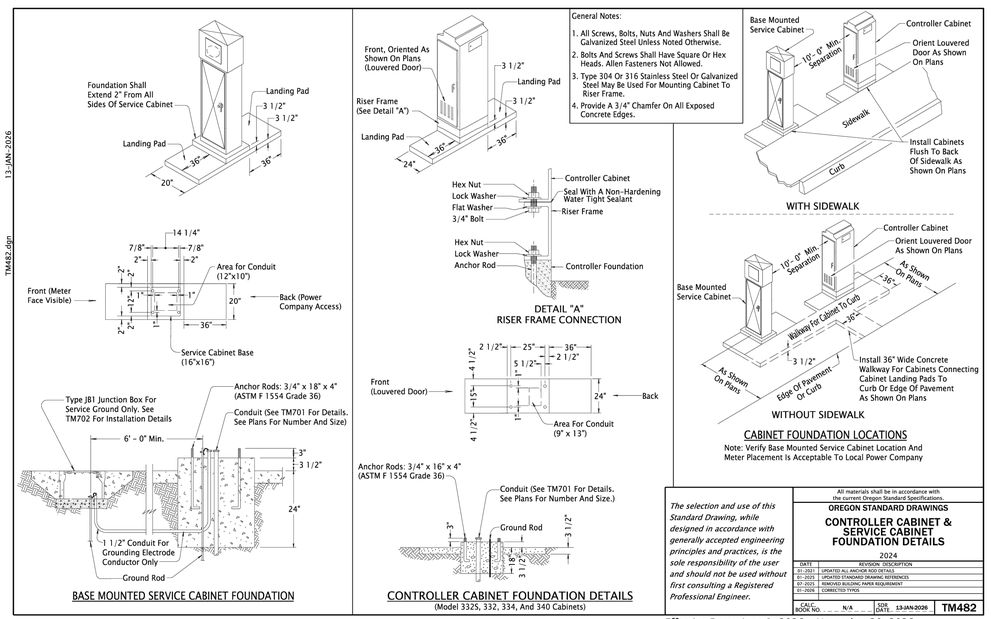
PEDESTRIAN SIGNAL MOUNT AND PEDESTRIAN PUSHBUTTON DETAILS

2024

DATE	REVISION DESCRIPTION
07-2022	ADDED R10-25 SIGN, ADDED EXTENSION MOUNTING NOTE FOR 2 PUSHBUTTONS ON SAME 4" DIA. POLE.
07-2024	ADDED ARROW TO PUSHBUTTON, ADDED BI-DIRECTIONAL ARROW
07-2025	REVISED SIGN R10-25, ADDED GEN. NOTE 5.
01-2026	ADDED CLARIFICATION TO ARROW ON PUSHBUTTON

CALC. BOOK NO. N/A — SDR DATE: 13-JAN-2026 — **TM467**

Effective Date: June 1, 2026 – November 30, 2026



BASE MOUNTED SERVICE CABINET FOUNDATION

CONTROLLER CABINET FOUNDATION DETAILS
(Model 332S, 332, 334, And 340 Cabinets)

CABINET FOUNDATION LOCATIONS
Note: Verify Base Mounted Service Cabinet Location And Meter Placement Is Acceptable To Local Power Company

The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without first consulting a Registered Professional Engineer.

All materials shall be in accordance with the current Oregon Standard Specifications.

OREGON STANDARD DRAWINGS

CONTROLLER CABINET & SERVICE CABINET FOUNDATION DETAILS

2024

DATE	REVISION DESCRIPTION
01-2021	UPDATED ALL ANCHOR ROD DETAILS
01-2025	UPDATED STANDARD DRAWING REFERENCES
07-2025	REMOVED BUILDING PAPER REQUIREMENT
01-2026	CORRECTED TYPOS

CALC. BOOK NO. N/A — SDR DATE: 13-JAN-2026 — **TM482**

Effective Date: June 1, 2026 – November 30, 2026

REGISTERED PROFESSIONAL ENGINEER
#88394PE
OREGON
SEPT. 11, 2018
CONOR R. COST I GAN
EXPIRES: 12/31/2027

BEND BIKEWAYS NO. 1TBKE
BUTLER MARKET/BOYD ACRES INTERSECTION IMPROVEMENTS
ODOT STD. DWGS.
CITY OF BEND — DESCHUTES COUNTY, OREGON

REVISIONS:

DAVID EVANS AND ASSOCIATES INC.
2843 NW Lolo Dr., Suite 275
Bend, Oregon 97703
Phone: 541.389.7614

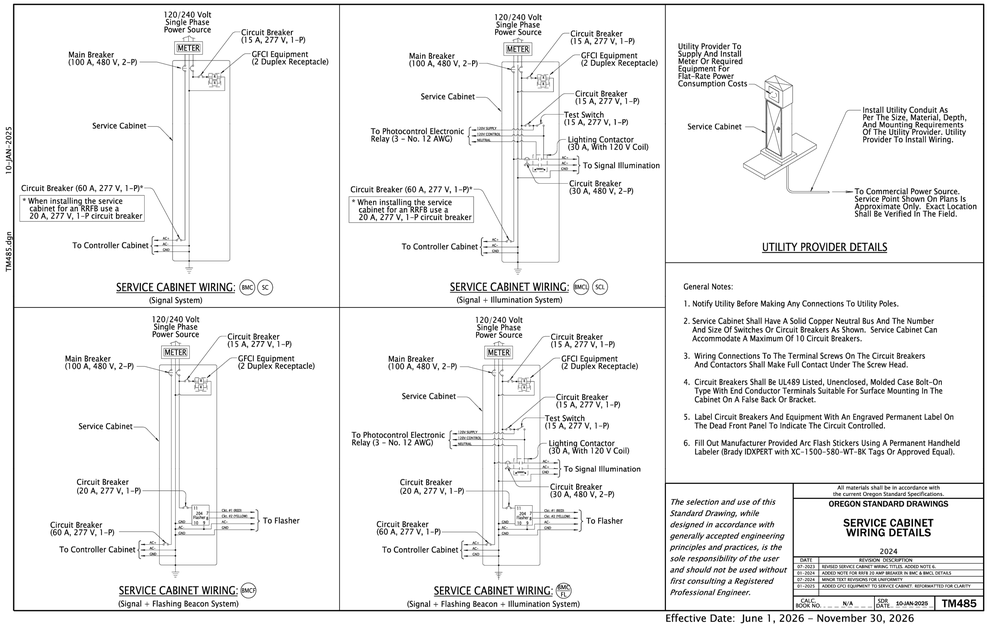
DESIGNED BY: CRCO
DRAWN BY: CRCO
SCALE: AS SHOWN
FILE: C31 DETAILS BNDX00000132.DWG
DATE: 6/19/26

VERIFY SCALES
0 — 1"
BAR EQUALS ONE INCH ON ORIGINAL DRAWING

SHEET: RD8

COB # 1TBKE

P:\BNDX00000132\0400CAD\SHEETS\RH\BUTLER-BOYD\C31.DETAILS-BNDX00000132.DWG



UTILITY PROVIDER DETAILS

General Notes:

1. Notify Utility Before Making Any Connections To Utility Poles.
2. Service Cabinet Shall Have A Solid Copper Neutral Bus And The Number And Size Of Switches Or Circuit Breakers As Shown. Service Cabinet Can Accommodate A Maximum Of 10 Circuit Breakers.
3. Wiring Connections To The Terminal Screws On The Circuit Breakers And Contactors Shall Make Full Contact Under The Screw Head.
4. Circuit Breakers Shall Be UL489 Listed, Unenclosed, Molded Case Bolt-On Type With End Conductor Terminals Suitable For Surface Mounting In The Cabinet On A False Back Or Bracket.
5. Label Circuit Breakers And Equipment With An Engraved Permanent Label On The Dead Front Panel To Indicate The Circuit Controlled.
6. Fill Out Manufacturer Provided Arc Flash Stickers Using A Permanent Handheld Labeler (Brady IDXPERT with XC-1500-580-WT-BK Tags Or Approved Equal).

The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without first consulting a Registered Professional Engineer.

All materials shall be in accordance with the current Oregon Standard Specifications.

OREGON STANDARD DRAWINGS

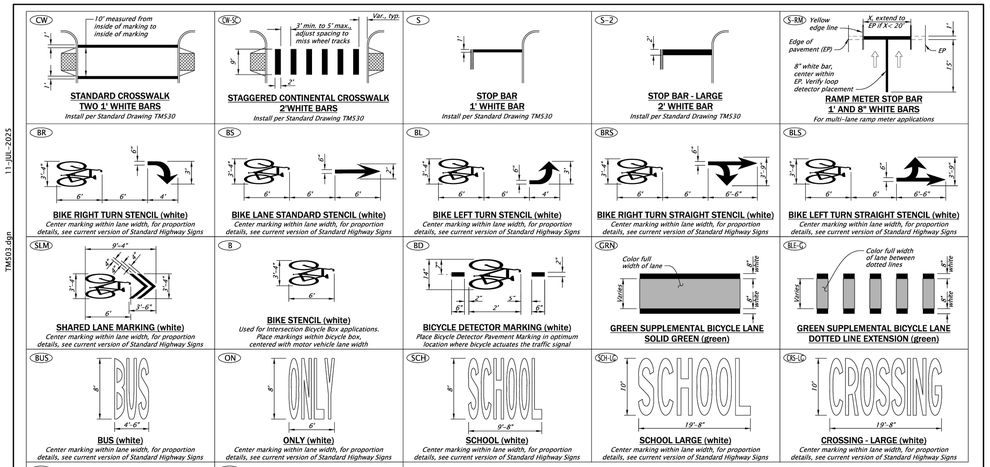
SERVICE CABINET WIRING DETAILS

2024

DATE	REVISION DESCRIPTION
07-2023	REVISED SERVICE CABINET WIRING TITLES. ADDED NOTE 6.
01-2024	ADDED NOTE FOR 10X10 20 AMP BREAKER IN BMC & BMCL DETAILS
07-2024	MINOR TEXT REVISIONS FOR UNIFORMITY
01-2025	ADDED GFCI EQUIPMENT TO SERVICE CABINET. REFORMATTED FOR CLARITY.

CALC BOOK NO. N/A — SDR DATE 10-JAN-2025 — **TM485**

Effective Date: June 1, 2026 – November 30, 2026



GENERAL NOTES:

1. Arrow, letter, and bicycle symbol dimensions nominal.

LEGEND

⇦ Direction of Travel

The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without first consulting a Registered Professional Engineer.

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OREGON STANDARD DRAWINGS

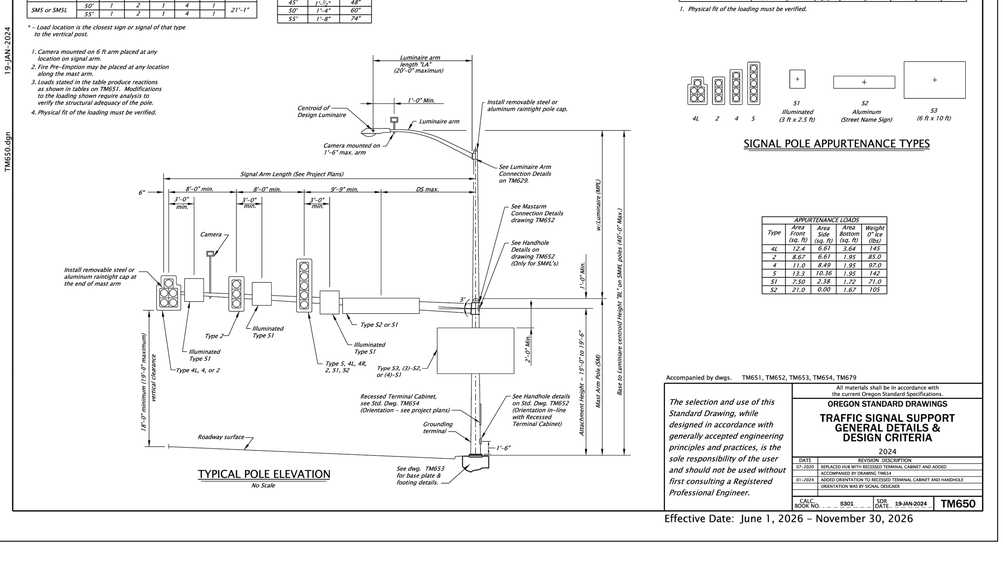
PAVEMENT MARKING STANDARD DETAIL BLOCKS

2024

DATE	REVISION DESCRIPTION
07-2022	ADDED NOTE FOR MEASUREMENT OF STAGGARD CROSSWALK
07-2025	REPLACED HELMETED BICYCLIST SYMBOL WITH BICYCLE SYMBOL
01-2025	UPDATED CAD STANDARDS

CALC BOOK NO. N/A — SDR DATE 11-JUL-2025 — **TM503**

Effective Date: June 1, 2026 – November 30, 2026



TYPICAL POLE ELEVATION
No Scale

STANDARD SIGNAL ARM LOADS

Signal Pole Type	Signal Arm Length	Signals 4L Qty.	Signals 2 Qty.	Signals S1 Qty.	Signals S2 Qty.	Sign Qty.	DS Max. for S2
SM1 or SM1L	15'	1	0	1	2	0	N/A
SM2 or SM2L	20'	1	1	1	3	0	N/A
	25'	1	1	1	3	0	
SM3 or SM3L	30'	1	1	1	3	1	9'-1"
	35'	1	2	1	3	1	
SM4 or SM4L	40'	1	2	1	4	1	11'-1"
	45'	1	2	1	4	1	
SM5 or SM5L	50'	1	2	1	4	1	21'-1"
	55'	1	2	1	4	1	

* - Load location is the closest sign or signal of that type to the vertical post.

1. Camera mounted on 8 ft arm placed at any location on signal arm.
2. Fire Pre-Emption may be placed at any location along the mast arm.
3. Loads stated in the table produce reactions as shown in tables on TM651. Modifications to the loading shown require analysis to verify the structural adequacy of the pole.
4. Physical fit of the loading must be verified.

SIGNAL ARMS DEFLECTION

Signal Arm Length "SA"	Allowable Dead Load Deflection	Allowable Total Load Deflection
15' or less	0.01"SA"	0.05"SA"
20'	3'/2"	12"
25'	3'/2"	15"
30'	5"	21"
35'	7"	29"
40'	9'/2"	38"
45'	1'-1/2"	48"
50'	1'-4"	60"
55'	1'-8"	74"

VERTICAL POST LOADS

Description	Maximum Centerline Elevation	Height (Each)	Width (Each)	Depth (Each)	Area Front (sq. ft)	Area Side (sq. ft)	Area Bottom (sq. ft)	Weight 0" Ice (lbs)
2-Ped. Push Buttons	3'-6"	7'/2"	5"	3'/2"	0.27	0.18	0.12	3.0
Controller Cabinet	5'-0"	40"	24"	22"	7.87	7.03	3.67	300
2-Pedestrian Signals	8'-3'/2"	18'/2"	19"	19"	2.47	2.47	2.51	25.0
Terminal Cabinet	10'-9"	18'/2"	6'/2"	8'/2"	0.85	1.05	0.39	25.0
Guide Sign (S3)	15'-0"	72"	120"	8'/2"	60.0	1.00	1.67	195
Photoelectric Cell	38'-4"	2'/2"	3'/2"	3'/2"	0.05	0.05	0.07	5.0

1. Physical fit of the loading must be verified.

SIGNAL POLE APPURTENANCE TYPES

APPURTENANCE LOADS

Type	Area Front (sq. ft)	Area Side (sq. ft)	Area Bottom (sq. ft)	Weight 0" Ice (lbs)
4L	12.4	6.61	3.64	145
2	8.67	6.61	1.95	85.0
4	11.0	6.49	1.95	97.0
5	13.1	10.36	1.95	142
S1	7.50	2.38	1.72	71.0
S2	21.0	0.00	1.67	105

Accompanied by dwgs. TM651, TM652, TM653, TM654, TM679

The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without first consulting a Registered Professional Engineer.

All materials shall be in accordance with the current Oregon Standard Specifications.

OREGON STANDARD DRAWINGS

TRAFFIC SIGNAL SUPPORT GENERAL DETAILS & DESIGN CRITERIA

2024

DATE	REVISION DESCRIPTION
07-2025	REPLACED HUB WITH RECESSED TERMINAL CABINET AND ADDED
01-2024	ACCOMPANIED BY DRAWING TM654
07-2024	ADDED ORIENTATION TO RECESSED TERMINAL CABINET AND HANDHOLE
	ORIENTATION WAS BY SIGNAL DESIGNER

CALC BOOK NO. 9301 — SDR DATE 19-JAN-2024 — **TM650**

Effective Date: June 1, 2026 – November 30, 2026

GENERAL NOTES

1. *Signal supports shall be designed in accordance with the AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals 4th edition, 2001, 2002, and 2003 interim revisions.*
2. *All traffic signal supports shall conform to the design criteria and details shown on these drawings except as approved by the Engineer.*
3. *The design basic wind speed (3 second gust) shall be 110 mph, gust factor G = 1.14, Ir = 1.0 (50 year recurrence interval), Fatigue Category II, no galloping, and truck speed = 55 mph.*
4. *Signal poles from this standard are not allowed over highways I-5, I-84, I-205, I-405, US 26 (Sunset Hwy.) between milepoints 64.3 - 73.0, I-105, and I-82. Signal poles on these highways require a Fatigue Category I.*
5. *Pole and arm shafts may be either round, hexdecagonal, dodecagonal, or octagonal but shapes shall not be mixed on a project. Dimensional tolerances of ASTM A595 shall apply to all tapered steel tubing members. Additionally, the diameter of round tapered steel tubing members or the dimensions across the flats of octagonal tapered steel tubing members shall not vary more than 2 percent from specified dimension. Two ply and fluted poles or arms are not permitted.*
6. *Pole taper shall be equal to .0117 in/in.*
7. *Anchor rods shall conform to ASTM Specification F1554 Gr. 55, Supplementary Requirement "S2" that include grade and manufacturer's identification.*
8. *High strength bolts shall conform to ASTM F3125 Grade A325 Type 1.*
9. *Nuts for high strength bolts shall be heavy hex and conform to ASTM A563 Grade DH with supplementary requirements "S1" and "S2".*
10. *Hardened steel washers shall conform to ASTM F436 Type 1.*
11. *Direct Tension Indicators (DTI) shall be the compressible washer type, mechanically galvanized, conforming to ASTM F959.*
12. *Steel sheet for poles and arm shall conform ASTM A595, Grades A or B, ASTM A572 Gr. 50, or approved equal. All other steel sheet and plate shall conform to AASHTO specification M223 (ASTM A572), or approved equal. Supplement S18 of ASTM A6 regarding maximum tensile strength shall apply.*
13. *All structural steel including fasteners shall be hot-dip galvanized after fabrication unless otherwise noted.*
14. *Galvanize-Control Silicon, typical. Silicon content of the base metal shall be in the range of 0 to 0.04 percent or 0.15 to 0.25 percent.*
15. *Footing concrete shall be Commercial Grade Concrete (fc=3000 psi) per Specification Section 440. Grout in grout pad shall be non-shrink high early strength grout (non-ferrous) with a minimum strength of 5000 psi.*
16. *Reinforcing steel shall conform to AASHTO M31, Grade 60 (ASTM A615 or A706). A minimum lap splice length of 32 bar diameters shall be used unless shown otherwise.*
17. *Computed deflection of these poles at full design loading shall be limited to 5 percent of the pole length. Computed dead load deflection of the poles shall be limited to 1 percent of the pole length. Pole shall be raked to offset the computed dead load deflection. Computed deflection (ignoring pole bending and/or rotation) of signal arms shall not exceed that listed in the Signal Arm Deflection Table on TM650. Additionally, the amplitude (maximum up to maximum down as measured at the tip of the arm) of wind induced vertical oscillations shall not exceed 1.5 percent of the signal arm length. Luminaire arms and pole extensions to support luminaire arms shall meet requirements of standard drawing TM629.*
18. *Hubs for cabinets and/or other appurtenances shall be welded into the pole prior to galvanizing. Poles may be tapped for up to 1" galvanized bolts after pole has been tested.*
19. *Longitudinal seam welds within 6 inches of a circumferential weld shall be complete penetration welds. Weld inspection shall be in accordance with AWS D1.1 and the special provisions. Inspect seam welds using cyclically loaded criteria. Hubs shall be 3000# threaded forged carbon steel flat weld hubs by Anvil Products Inc., Phoenix Forging Co., Bonney Forge & Tool Works or approved equal.*
20. *Grounding terminal shall be ½" UNC x 1½" Type 308, 309 or 310 threaded stainless steel weld studs.*
21. *Assemble support, tighten anchor bolts, tighten HS thru bolts and tighten HS bolts in tapped holes according to 00962.46(j)(2).*
22. *Round and smooth all edges along electrical way.*
23. *The minimum arm flange thickness shall be equal to the value where prying action is not included in the bolt calculation.*

Standard Maximum Base Reactions (Unfactored)

Signal Pole Type	Signal Arm Lengths	Wind Load Case II Axial (Kips)	Wind Load Case II Shear (Kips)	Wind Load Case II Moment (Kip-ft)	Controlling Fatigue Torque (Kip-ft)	Controlling Fatigue Shear (Kips)	Controlling Fatigue Moment (Kip-ft)	Controlling Fatigue Torque (Kip-ft)
SM1	15'	2.10	5.15	80.39	16.95	0.68	10.39	2.13
SM2	20', 25'	2.66	6.23	105.41	42.54	0.82	13.35	5.37
SM3	30', 35'	3.49	7.77	138.43	82.87	1.00	17.10	10.31
SM4	40', 45'	4.51	9.00	173.46	132.72	1.16	20.54	16.50
SM5	50', 55'	5.69	9.23	190.91	181.60	1.18	21.62	22.55
SM1L	15'	2.96	6.09	113.28	23.22	0.79	14.08	2.84
SM2L	20', 25'	3.69	7.23	139.41	48.81	0.94	17.17	6.08
SM3L	30', 35'	4.39	8.80	176.51	87.88	1.14	21.65	11.02
SM4L	40', 45'	5.94	10.14	215.11	136.97	1.31	25.27	17.21
SM5L	50', 55'	7.34	10.56	241.17	187.96	1.34	26.49	23.26

Standard Maximum Mast Arm Reactions

Signal Pole Type	Signal Arm Lengths	Wind Load Case II Axial (Kips)	Wind Load Case II Shear (Kips)	Wind Load Case II Moment (Kip-ft)	Controlling Fatigue Shear (Kips)	Controlling Fatigue Moment (Kip-ft)
SM1, SM1L	15'	0.06	1.98	18.44	0.23	2.18
SM2, SM2L	20', 25'	0.10	3.14	46.20	0.37	5.48
SM3, SM3L	30', 35'	0.15	4.51	89.42	0.53	10.51
SM4, SM4L	40', 45'	0.23	5.91	146.67	0.67	16.82
SM5, SM5L	50', 55'	0.34	6.78	211.94	0.70	22.99

Luminaire Arm Reactions

Arm Lengths	Wind Load Case II Axial (Kips)	Wind Load Case II Shear (Kips)	Wind Load Case II Moment (Kip-ft)	Controlling Fatigue Shear (Kips)	Controlling Fatigue Moment (Kip-ft)
6'	0.03	0.31	1.49	0.03	0.15
10'	0.06	0.38	2.85	0.04	0.29
15'	0.08	0.47	4.96	0.05	0.51
20'	0.05	0.55	7.24	0.06	0.74

Accompanied by drawings TM650, TM652, TM653, TM654

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OREGON STANDARD DRAWINGS

TRAFFIC SIGNAL SUPPORTS NOTES AND REACTIONS

2024

DATE	REVISION DESCRIPTION
07-2025	ADDED ACCOMPANIED BY STANDARD DRAWING TM654
07-2021	ADDED "LOAD FACTORED" TO THE TABLE HEADING
01-2021	CHANGED HIGH STRENGTH BOLT TIGHTENING TO 00962.40(j)(2)

CALC BOOK NO. 9301 — SDR DATE 06-JAN-2023 — **TM651**

Effective Date: June 1, 2026 – November 30, 2026

REGISTERED PROFESSIONAL ENGINEER
85394PE
OREGON
SEPT. 11, 2018
CONOR R. COST I GAN
EXPIRES: 12/31/2027

BEND BIKEWAYS NO. 1TBKE
BUTLER MARKET/BOYD ACRES INTERSECTION IMPROVEMENTS
ODOT STD. DWGS.
CITY OF BEND — DESCHUTES COUNTY, OREGON

REVISIONS:

DAVID EVANS AND ASSOCIATES INC.
2843 NW Lolo Dr., Suite 275
Bend, Oregon 97703
Phone: 541.389.7614

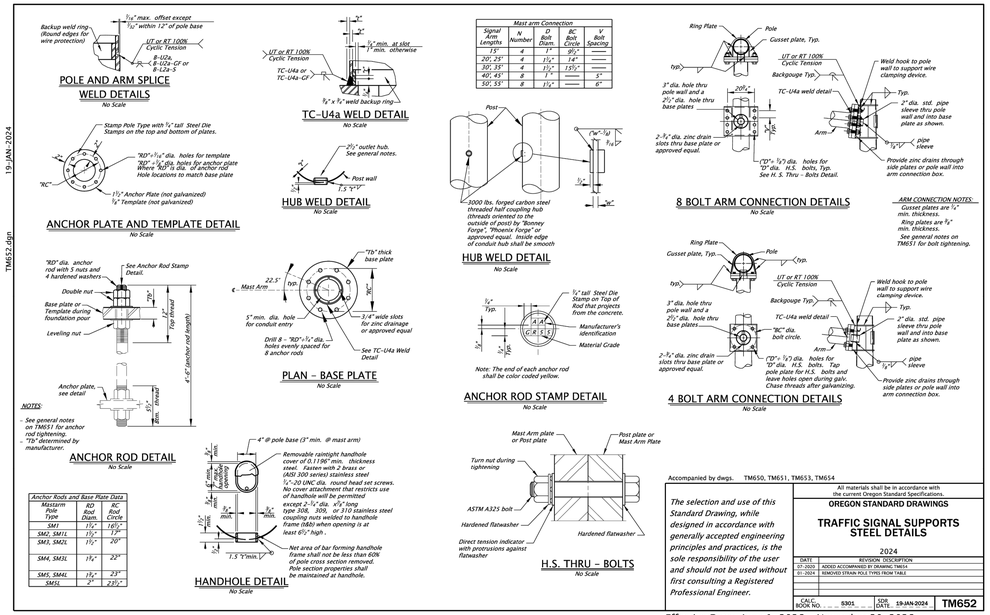
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DRAWN BY: CRCO
SCALE: AS SHOWN
FILE: C31.DETAILS.BNDX00000132.DWG
DATE: 6/19/26

VERIFY SCALES
0 1"
BAR EQUALS ONE INCH ON ORIGINAL DRAWING

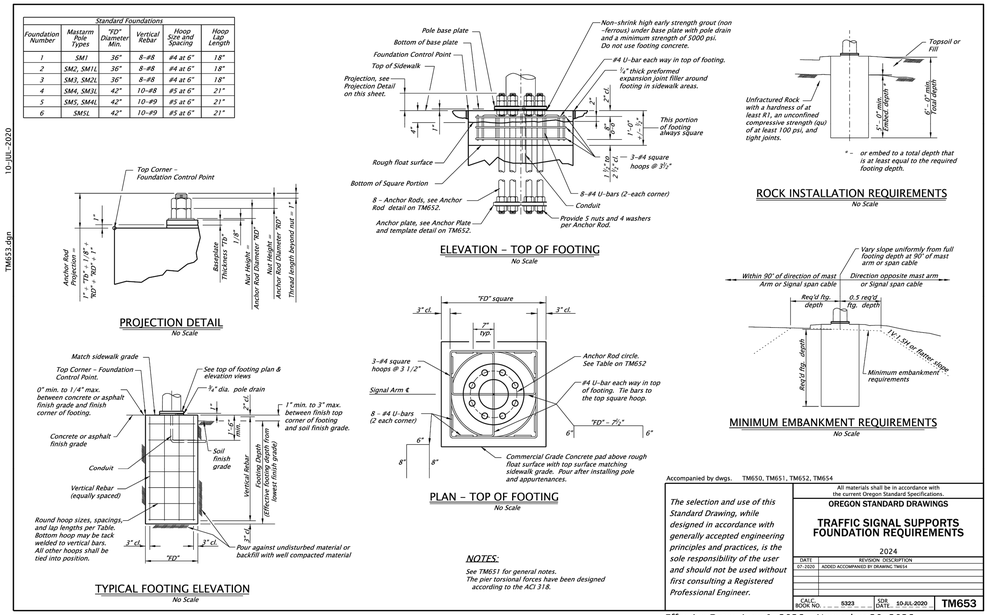
SHEET: RD9

COB # 1TBKE

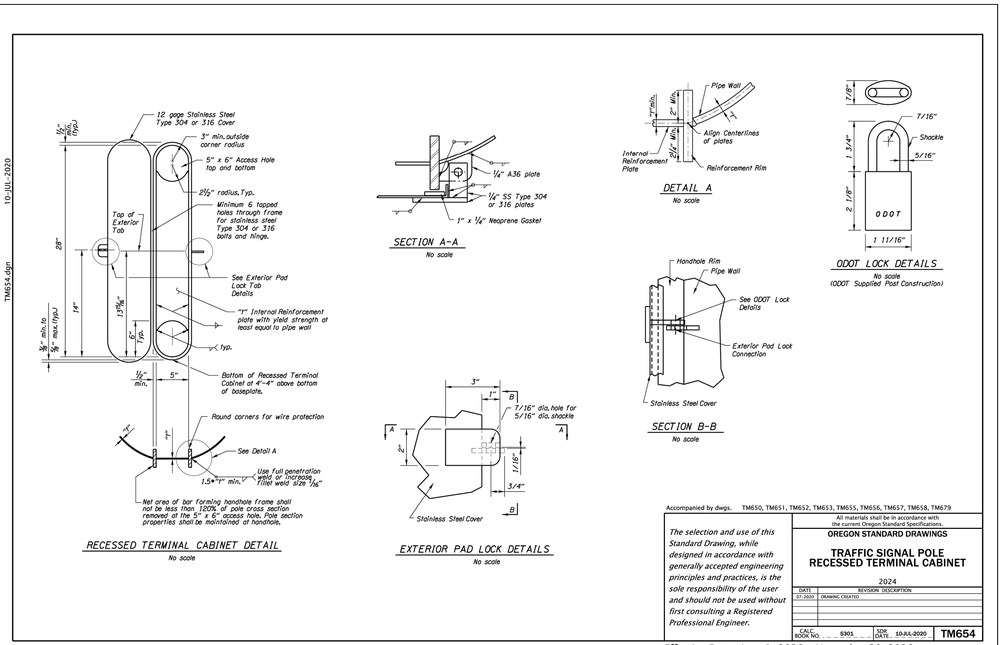
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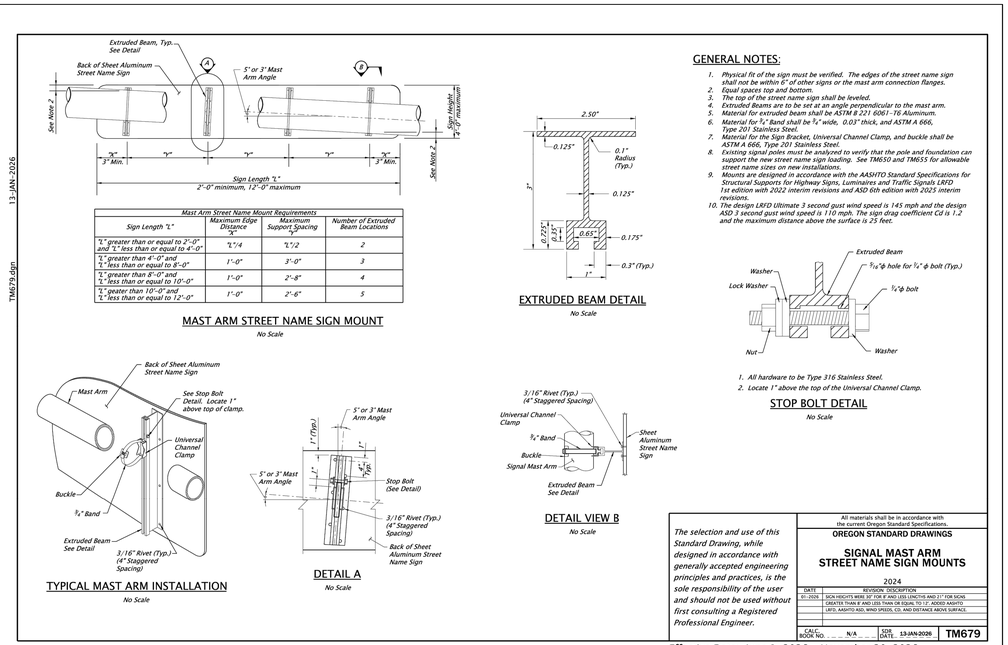
Effective Date: June 1, 2026 – November 30, 2026



Effective Date: June 1, 2026 – November 30, 2026



Effective Date: June 1, 2026 – November 30, 2026



Effective Date: June 1, 2026 – November 30, 2026

REGISTERED PROFESSIONAL ENGINEER
#88394PE
OREGON
SEPT. 11, 2018
CONOR R. COSTIGAN
EXPIRES: 12/31/2027

CITY OF BEND
BUTLER MARKET/BOYD ACRES
INTERSECTION IMPROVEMENTS
BEND BIKEWAYS NO. 1TBKE
ODOT STD. DWGS.
DESCHUTES COUNTY, OREGON

REVISIONS:

DAVID EVANS AND ASSOCIATES INC.
2843 NW Lolo Dr., Suite 275
Bend, Oregon 97703
Phone: 541.389.7614

DESIGNED BY: CRCO
DRAWN BY: CRCO
SCALE: AS SHOWN
FILE: C31\DETAILS-BNDX00000132.DWG
DATE: 6/19/26

VERIFY SCALES
0 1"
BAR EQUALS ONE INCH ON ORIGINAL DRAWING

SHEET:
RD10

COB # 1TBKE

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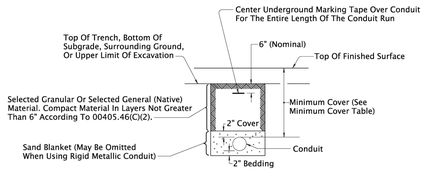
	Minimum Cover From Top of Finished Surface (Use Permit Depth If Greater Than These)	
Type Of Conduit	Roadway & Shoulders	Other Areas
Metallic	24"	18"
Non-Metallic	30"(See Note 2)	18"

Notes:
1. Additional Cover Depth May Be Necessary Near Foundations And Junction Boxes To Accommodate The Minimum Radius ("R") Of The Conduit Elbow. See TM701 For More Information.
2. For Non-Metallic Conduit Under Roadway & Shoulders Installed Horizontally Into Fiber Optic Hand Hole As Per TM702, The Minimum Cover Depth Is 24 Inches.

MINIMUM COVER FROM FINISHED SURFACE

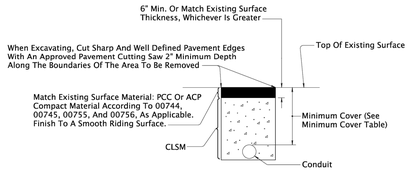
General Notes:

1. Install Conduit By Open Trench Method, Horizontal Directional Drilling, Or As Shown
2. Conduit Runs Shown On Plans Are For Bidding Purposes Only. Locations May Be Changed To Avoid Obstructions.
3. Excavate According To 00960.40. In Areas To Be Paved Or Landscaped, Place All Conduit Before Paving Or Landscaping.
4. Hold Trench Width To A Practical Minimum
5. Do Not Backfill Trenches Until Inspected By The Engineer
6. Furnish Backfill Materials According To 00960.10



CONDUIT OPEN TRENCH EXCAVATION & BACKFILL

UNSURFACED AREAS (new roadway prior to paving, shoulders, under sidewalk, landscaped areas, etc.)



CONDUIT OPEN TRENCH EXCAVATION & BACKFILL

EXISTING PAVED AREAS

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OREGON STANDARD DRAWINGS

GENERAL CONDUIT TRENCHING

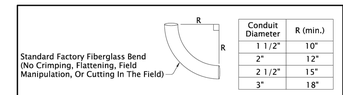
2024

DATE	REVISION DESCRIPTION
01-2025	NEW DRAWING (CONTENT FROM RETIRED TM471)

CALC BOOK NO. N/A — DSN DATE 10-JAN-2025 — **TM700**

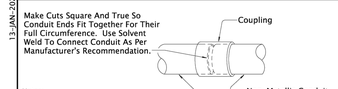
Effective Date: June 1, 2026 - November 30, 2026

10-JAN-2025
TM700.dgn



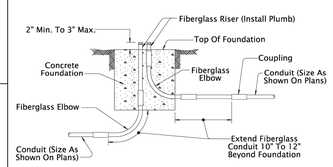
Conduit Diameter	R (min.)
1 1/2"	10"
2"	12"
2 1/2"	15"
3"	18"

CONDUIT ELBOWS

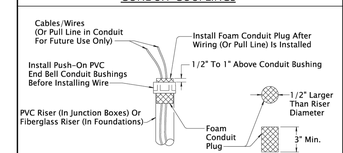


Notes:
1. Slip Joints, Running Threads Or Reducing Couplings Not Allowed. Use The Same Size Conduit For The Entire Length, Outlet To Outlet.

CONDUIT COUPLINGS



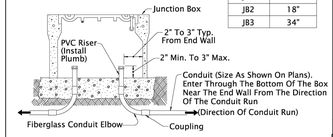
CONDUIT INSTALLATIONS IN FOUNDATIONS



Notes:
1. Ream Conduit Ends To Remove Rough Edges And Burrs
2. Temporarily Plug Or Cap Conduit Ends At All Times To Keep Debris Out

CONDUIT ENDS AND BUSHINGS

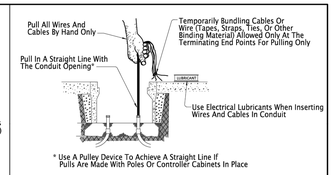
Junction Box Type	Max. Sum Of Conduit Diameters
JB1	12"
JB2	18"
JB3	34"



CONDUIT INSTALLATION IN JUNCTION BOXES

Conduit Installation General Notes:

1. Install Non-Metallic Conduit Unless Otherwise Shown. Conduit Runs Shall Be Continuous Between Any Pole, Junction Box, Or Cabinet.
2. Larger Conduit Than Specified May Be Used At The Option And Cost Of The Contractor If Max. Sum Of Conduit Diameters In Junction Box Is Not Exceeded.



WIRE & CABLE INSTALLATION IN CONDUITS

Wire & Cable Installation General Notes:

1. See TM470 For Additional Wire/Cable Installation Requirements That Apply To Specification Section 00990 Bid Items.
2. Label Wires And Cables With Permanent Tags As Shown Or Directed. Use Handheld Labeler (Brady M210 Label Maker With Vinyl B-595 Tape) Unless Otherwise Shown.
3. Install No. 16 AWG TFFN Orange Base With Blue Tracertone Wire In All Conduits As A Locate Wire. Leave Slack As Shown Or Directed And Install A Wire Nut. Do Not Join Multiple Locate Wires Under A Common Wire Nut Unless Otherwise Shown.
4. Tape The Ends Of Unused Conductors With Insulated Vinyl Plastic Tape.
5. Leave A Minimum Of 2 Feet Slack In Each Wire And Cable In Junction Boxes, Poles, Cabinets Unless Otherwise Shown.
6. Install Polyethylene Pull Line In All Conduits Noted On The Plans For Future Use (No Wires/Cables In Conduit). Leave 6 Feet Of Slack Pull Line.

The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without first consulting a Registered Professional Engineer.

All materials shall be in accordance with the current Oregon Standard Specifications.

OREGON STANDARD DRAWINGS

GENERAL CONDUIT & WIRE/CABLE INSTALLATION

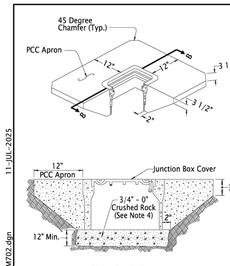
2024

DATE	REVISION DESCRIPTION
01-2025	NEW DRAWING (CONTENT FROM RETIRED TM472 & TM471)
07-2025	DELETED APPLICABILITY LANGUAGE IN CONDUIT IN FOUNDATIONS DETAIL

CALC BOOK NO. N/A — DSN DATE 13-JAN-2026 — **TM701**

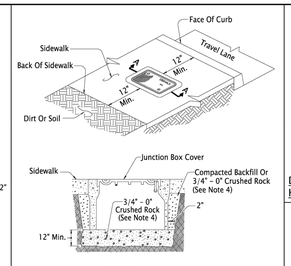
Effective Date: June 1, 2026 - November 30, 2026

13-JAN-2026
TM701.dgn



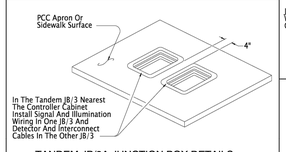
JUNCTION BOX INSTALLATION IN UNSURFACED AREA

(This Detail Only Applicable for Junction Boxes Located In Incidental Travel Areas, Gravel Shoulders, Behind Guardrail, Etc. Do Not Install In Travel Lanes, Paved Shoulders, Or Other Areas Exposed To Traffic.)



JUNCTION BOX INSTALLATION IN PCC SIDEWALK

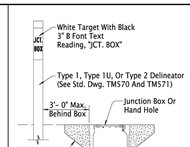
(This Detail Only Applicable for Junction Boxes Located In Flat Areas Of Sidewalks. Do Not Install In Slopes Of Ramps Or Driveways)



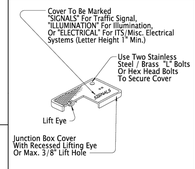
TANDEM JB/3A JUNCTION BOX DETAILS

GENERAL NOTES:

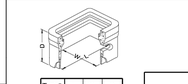
1. Install Top of Junction Box And Hand Hole Flush With The Sidewalk, Surrounding Grade, Or Top Of Curb. For Hand Holes Installed In The Roadway Or Shoulder, Leave The Top Of The Hand Hole 1/2" Below The Pavement Surface.
2. Install Junction Boxes And Hand Holes At The Approximate Locations Shown, Or If Not Shown, No More Than 300 Feet Apart For Junction Boxes And No More Than 1000 Feet Apart For Hand Holes.
3. More Junction Boxes And Hand Holes Than Specified May Be Installed To Facilitate The Work At The Option And Cost Of The Contractor
4. Use Materials According To 00640.10 and 00640.16. Use Compaction Equipment Suitable For Area And Compact Each Six Inch Layer With Sufficient Coverage To Produce A Firm Unyielding Surface. Do Not Install Conductors Until Surface Has Been Constructed.



DELINEATION OF JUNCTION BOX & HAND HOLE IN UNSURFACED AREA



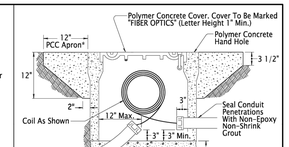
JUNCTION BOX COVER DETAILS

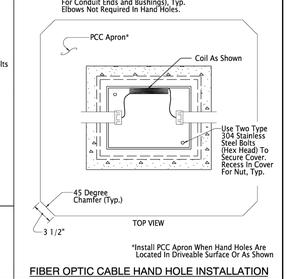


Type*	L	W	D
JB1	17"	10"	12"
JB2	23"	12"	12"
JB3	30"	17"	12"
HH-1	24"	30"	24"
HH-2	30"	48"	24"
HH-3	30"	48"	36"

*Junction Box Or Handhole Type As Shown On Plans

DIMENSION TABLE





FIBER OPTIC CABLE HAND HOLE INSTALLATION

The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without first consulting a Registered Professional Engineer.

All materials shall be in accordance with the current Oregon Standard Specifications.

OREGON STANDARD DRAWINGS

GENERAL JUNCTION BOX/HAND HOLE INSTALLATION

2024

DATE	REVISION DESCRIPTION
01-2025	NEW DRAWING (CONTENT FROM RETIRED TM472)
07-2025	REVISED FIBER OPTIC CABLE HAND HOLE INSTALLATION DETAIL

CALC BOOK NO. N/A — DSN DATE 11-JUL-2025 — **TM702**

Effective Date: June 1, 2026 - November 30, 2026

11-JUL-2025
TM702.dgn

P:\B\BNDX0000132\0400CAD\SHEETS\RH\BUTLER-BOYD\C31.DETAILS-BNDX0000132.DWG

REGISTERED PROFESSIONAL ENGINEER
#88394PE
OREGON
SEPT. 11, 2018
CONOR R. COSTIGAN
EXPIRES: 12/31/2027

BEND BIKEWAYS NO. 1TBKE
BUTLER MARKET/BOYD ACRES INTERSECTION IMPROVEMENTS
ODOT STD. DWGS.
CITY OF BEND — DESCHUTES COUNTY, OREGON

REVISIONS:

DAVID EVANS AND ASSOCIATES INC.
2843 NW Lolo Dr., Suite 275
Bend, Oregon 97703
Phone: 541.389.7614

DESIGNED BY: CRCO
DRAWN BY: CRCO
SCALE: AS SHOWN
FILE: C31.DETAILS.BNDX0000132.DWG
DATE: 6/19/26

VERIFY SCALES
0 — 1"
BAR EQUALS ONE INCH ON ORIGINAL DRAWING

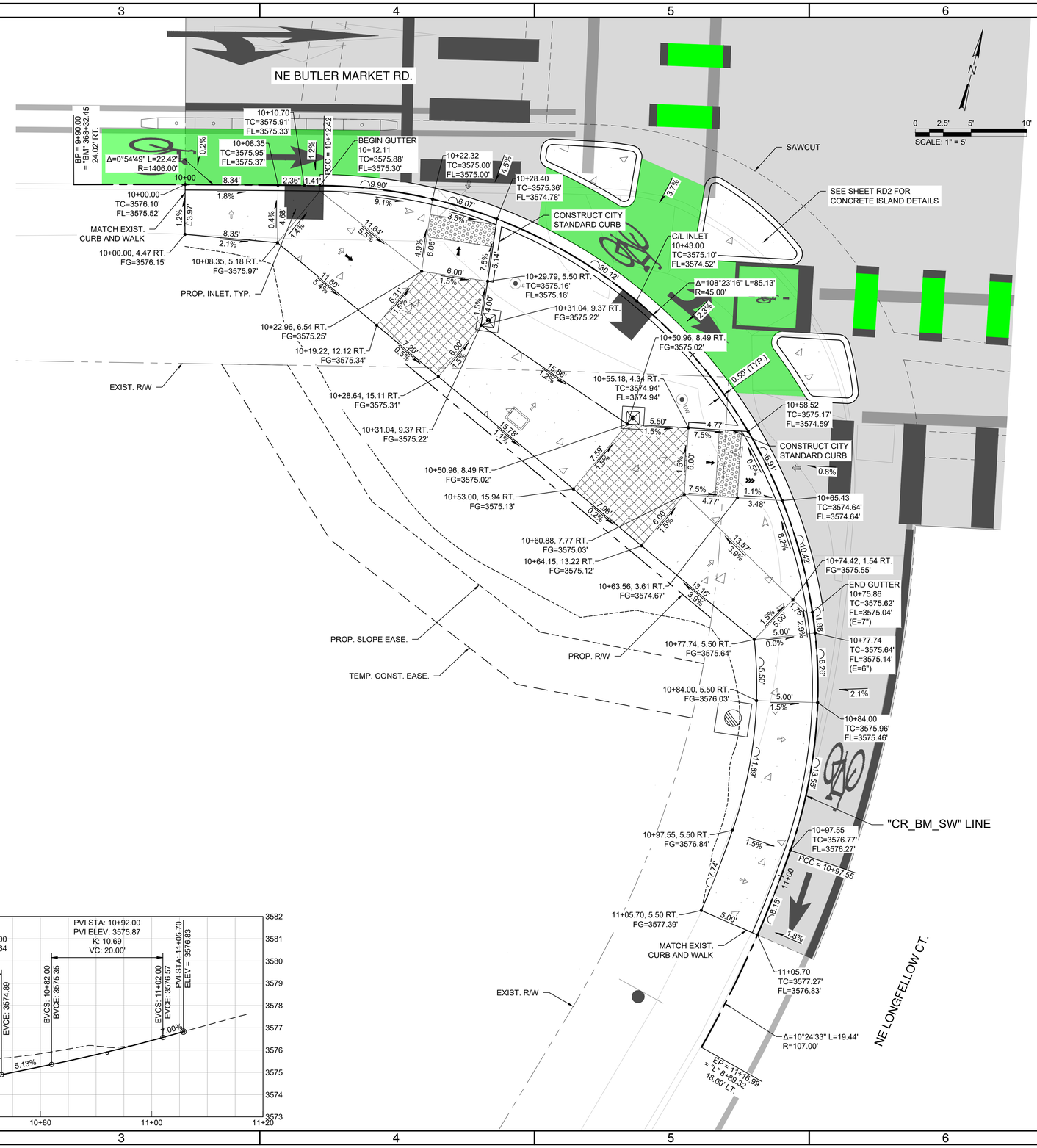
SHEET:
RD11

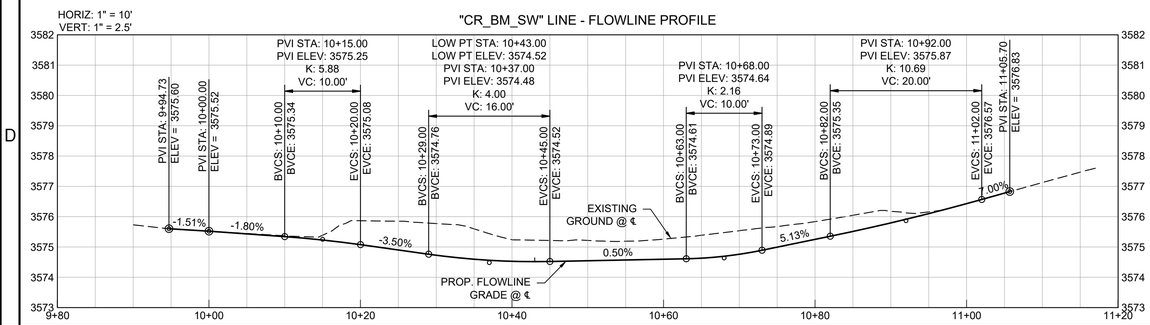
COB # 1TBKE

LEGEND:

TC	TOP OF CURB
FL	FLOW LINE
FG	FINISHED GRADE
X.X%	FLOW DIRECTION
	RUNNING SLOPE 7.5% MAX. (8.3% MAX. FINISHED SURFACE SLOPE)
	RUNNING SLOPE 4.0% MAX. (4.9% MAX. FINISHED SURFACE SLOPE)
	CROSS SLOPE 1.5% MAX. (2.0% MAX. FINISHED SURFACE SLOPE)
	COUNTER SLOPE 4.0% MAX. (5.0% MAX. FINISHED SURFACE SLOPE)
	FLARE SLOPE (10.0% MAX. FINISHED SURFACE SLOPE)
	LEVEL AREA (TURNING SPACE/LANDING)
	DETECTABLE WARNING SURFACE

NOTE: SLOPES HOLD OVER ELEVATIONS.





REGISTERED PROFESSIONAL ENGINEER
OREGON
SEPT. 11, 2018
CONOR R. COSTIGAN
EXPIRES: 12/31/2027

BEND BIKEWAYS NO. 1TBKE
BUTLER MARKET/BOYD ACRES INTERSECTION IMPROVEMENTS
GRADING DETAILS

CITY OF BEND — DESCHUTES COUNTY, OREGON

REVISIONS:

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2843 NW Lolo Dr., Suite 275
Bend, Oregon 97703
Phone: 541.389.7614

DESIGNED BY: CRCO
DRAWN BY: CRCO
SCALE: 1" = 5'
FILE: C20.DETAILS-INT-BNDX00000132.DWG
DATE: 6/19/26

VERIFY SCALES
0 1"
BAR EQUALS ONE INCH ON ORIGINAL DRAWING

SHEET: GR1

COB # 1TBKE

P:\BNDX00000132\0400CAD\SHEETS\RH\BUTLER-BOYD\C20.DETAILS-INT-BNDX00000132.DWG

NE BUTLER MARKET RD.

SEE SHEET RD2 FOR CONCRETE ISLAND DETAILS

SAWCUT

10+97.38, 2.14 RT. FG=3574.27'

PCC = 11+03.07

10+97.84 TC=3574.26' FL=3574.26'

11+04.84 TC=3574.77' FL=3574.19'

C/L INLET 11+08.65 TC=3574.80' FL=3574.22'

11+15.00 TC=3574.79' FL=3574.21'

11+30.00 TC=3574.90' FL=3574.32'

11+41.29 TC=3574.88' FL=3574.30'

10+91.61 TC=3574.36' FL=3574.36'

10+84.09 TC=3575.03' FL=3574.45'

R=1403.00'

Δ=2°24'27" L=58.95'

PROP. INLET, TYP.

STA. "CR_BM_SE" 111+41.29 =
STA. "BM" 370+28.00, 27.00' RT.
SEE BUTLER MARKET ROAD KEY ROUTE IMPROVEMENT PLANS FOR CONTINUATION

Δ=86°38'37" L=68.05' R=45.00'

C/L INLET 10+70.49 TC=3574.93' FL=3574.35'

10+68.07 TC=3574.95' FL=3574.37'

10+90.35, 3.28 RT. FG=3574.58'

11+01.52, 2.62 RT. FG=3574.79'

10+88.12, 8.01 RT. FG=3574.63'

11+04.84, 7.50 RT. FG=3574.88'

11+15.00, 7.50 RT. FG=3574.89'

11+30.00, 7.50 RT. FG=3575.01'

11+41.29, 7.50 RT. FG=3574.98'

10+96.68, 5.03 RT. FG=3574.50'

EXIST. R/W

10+64.00, 3.27 RT. FG=3574.78'

11+00.27, 10.25 RT. FG=3574.59'

10+61.06 TC=3574.52' FL=3574.52'

10+68.90, 7.45 RT. FG=3574.87'

10+90.59, 13.71 RT. FG=3574.70'

PROP. R/W

PROP. WALL
SEE RW1 FOR DETAILS

10+53.78 TC=3574.63' FL=3574.63'

10+67.30, 15.11 RT. FG=3574.98'

TEMP. CONST. EASE.

BEGIN GUTTER
10+46.27 TC=3575.32' FL=3574.82'

10+49.28, 2.60 RT. FG=3575.29'

10+58.76, 7.09 RT. FG=3574.87'

10+55.80, 12.63 RT. FG=3574.96'

10+80.68, 30.92 RT. TC=3577.78' FL=3577.22'

10+45.27 TC=3575.36' FL=3574.86'

10+56.38, 4.06 RT. FG=3574.60'

10+86.28, 32.00 RT. FG=3577.18'

10+45.27, 7.43 RT. FG=3575.39'

R=5.0'

10+40.77 TC=3575.10' FL=3575.04'

10+41.31, 7.45 RT. TC=3575.83' FL=3575.33'

10+61.19, 30.80 RT. TC=3577.70' FL=3577.20'

PRC = 10+35.02

10+40.77, 5.50 RT. TC=3575.18' FL=3575.18'

CONSTRUCT CITY STANDARD CURB

10+35.02 TC=3575.35' FL=3575.29'

10+35.02, 5.50 RT. FG=3575.42'

3/4" LIP EXPOSURE

SAWCUT

"CR_BM_SE" LINE

10+24.76, 38.14 RT. FG=3578.68'

10+20.37 TC=3575.96' FL=3575.90'

10+24.78, 31.66 RT. TC=3579.20' FL=3578.65'

10+20.37, 5.50 RT. TC=3576.62' FL=3576.04'

Δ=18°02'20" L=45.02' R=143.00'

10+24.35, 28.71 RT. TC=3578.86' FL=3578.36'

CONSTRUCT CITY STANDARD CURB

10+05.37 TC=3577.11' FL=3576.61'

10+05.37, 5.50 RT. TC=3577.18' FL=3577.18'

10+00.00 TC=3577.28' FL=3576.90'

10+00.00, 5.50 RT. FG=3577.43'

MATCH EXIST. CURB AND WALK

BP = 9+90.00
= "L" 8+93.76
18.00' RT.

EXIST. R/W

HORIZ: 1" = 10'
VERT: 1" = 2.5'

"CR_BM_SE" LINE - FLOWLINE PROFILE

PVI STA: 10+11.00
PVI ELEV: 3576.29
K: 13.85
VC: 18.00'

PVI STA: 10+48.78
PVI ELEV: 3574.71
K: 3.70
VC: 10.00'

LOW PT STA: 10+72.00
LOW PT ELEV: 3574.34
PVI STA: 10+70.50
PVI ELEV: 3574.29
K: 3.00
VC: 12.00'

PVI STA: 10+84.00
PVI ELEV: 3574.49
K: 3.13
VC: 10.00'

LOW PT STA: 11+08.68
LOW PT ELEV: 3574.18
PVI STA: 11+06.00
PVI ELEV: 3574.12
K: 7.46
VC: 20.00'

PVI STA: 11+30.00
PVI ELEV: 3574.35
K: 12.15
VC: 18.00'

BVCS: 10+02.00
BVCE: 3576.79

EVCS: 10+20.00
EVCE: 3575.92

BVCS: 10+43.78
BVCE: 3574.92

EVCS: 10+53.78
EVCE: 3574.63

PVI STA: 10+61.06
ELEV = 3574.62

BVCS: 10+64.50
BVCE: 3574.44

EVCS: 10+76.50
EVCE: 3574.38

BVCS: 10+79.00
BVCE: 3574.42

EVCS: 10+89.00
EVCE: 3574.41

BVCS: 10+96.00
BVCE: 3574.29

EVCS: 11+16.00
EVCE: 3574.21

BVCS: 11+21.00
BVCE: 3574.26

EVCS: 11+39.00
EVCE: 3574.31

PVI STA: 10+00.00
ELEV = 3576.90

EXISTING GROUND @ ℄

PROP. FLOWLINE GRADE @ ℄

-5.00%
-4.20%
-1.50%
-2.50%
1.50%
-1.70%
0.98%
-0.50%

PVI STA: 11+41.29
ELEV = 3574.30

SEE BUTLER MARKET ROAD KEY ROUTE IMPROVEMENT PLANS FOR CONTINUATION

3582 3581 3580 3579 3578 3577 3576 3575 3574 3573 3572

9+80 10+00 10+20 10+40 10+60 10+80 11+00 11+20 11+40 11+60

N

0 2.5' 5' 10'
SCALE: 1" = 5'

LEGEND:

TC	TOP OF CURB
FL	FLOW LINE
FG	FINISHED GRADE
X.X%	FLOW DIRECTION
	RUNNING SLOPE 7.5% MAX. (8.3% MAX. FINISHED SURFACE SLOPE)
	RUNNING SLOPE 4.0% MAX. (4.9% MAX. FINISHED SURFACE SLOPE)
	CROSS SLOPE 1.5% MAX. (2.0% MAX. FINISHED SURFACE SLOPE)
	COUNTER SLOPE 4.0% MAX. (5.0% MAX. FINISHED SURFACE SLOPE)
	FLARE SLOPE (10.0% MAX. FINISHED SURFACE SLOPE)
	LEVEL AREA (TURNING SPACE/LANDING)
	DETECTABLE WARNING SURFACE

NOTE: SLOPES HOLD OVER ELEVATIONS.

P:\B\BNDX0000132\0400CAD\SHEETS\RH\BUTLER-BOYD\C20.DETAILS-INT-BNDX0000132.DWG

REGISTERED PROFESSIONAL ENGINEER
#88394PE
OREGON
SEPT. 11, 2018
CONOR R. COSTIGAN
EXPIRES: 12/31/2027

BEND BIKEWAYS NO. 1TBKE
BUTLER MARKET/BOYD ACRES INTERSECTION IMPROVEMENTS
GRADING DETAILS

CITY OF BEND — DESCHUTES COUNTY, OREGON

REVISIONS:

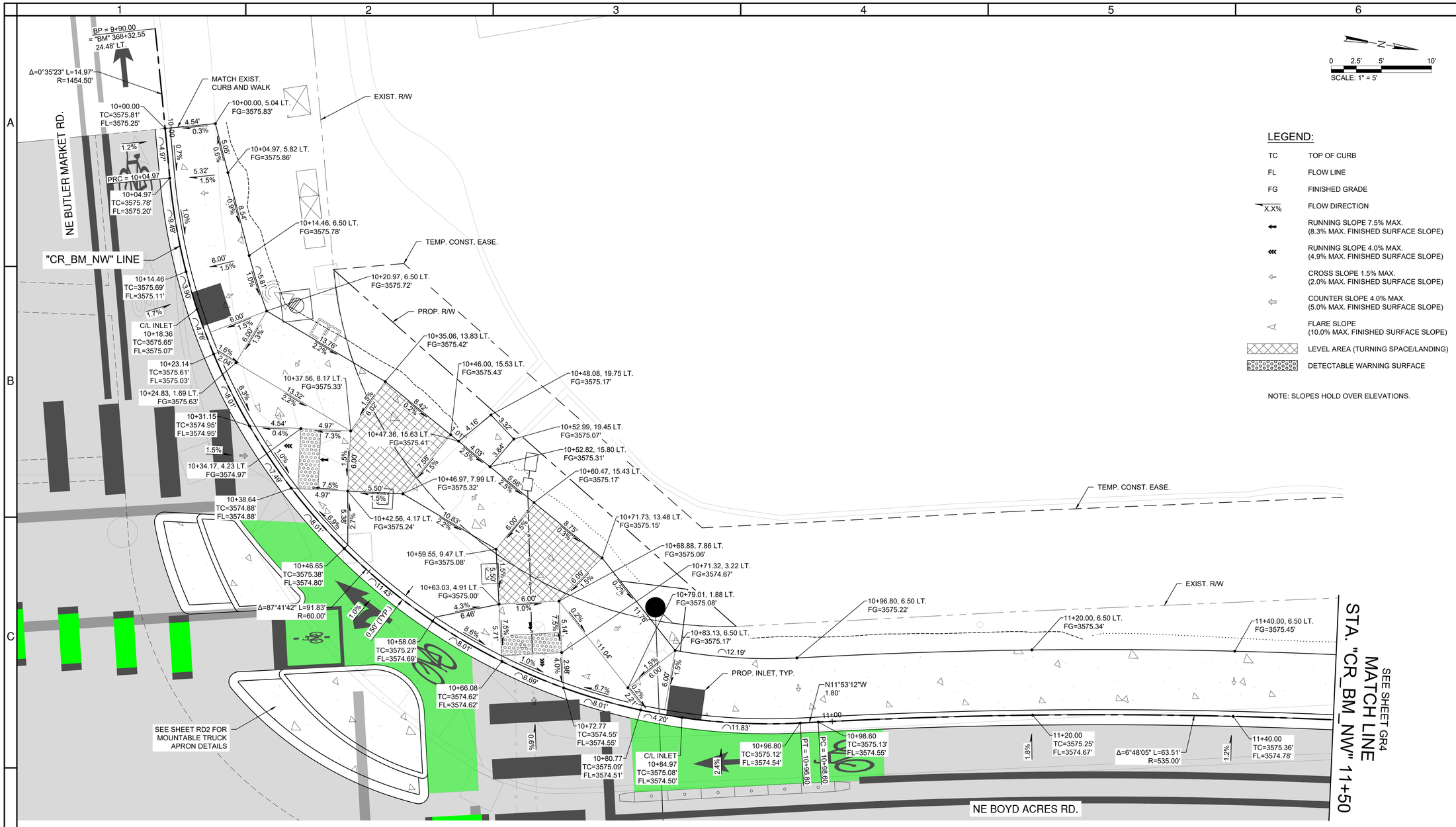
DAVID EVANS AND ASSOCIATES INC.
2843 NW Lolo Dr., Suite 275
Bend, Oregon 97703
Phone: 541.389.7614

DESIGNED BY: CRCO
DRAWN BY: CRCO
SCALE: 1" = 5'
FILE: C20.DETAILS-INT-BNDX0000132.DWG
DATE: 6/19/26

VERIFY SCALES
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BAR EQUALS ONE INCH ON ORIGINAL DRAWING

SHEET: GR2

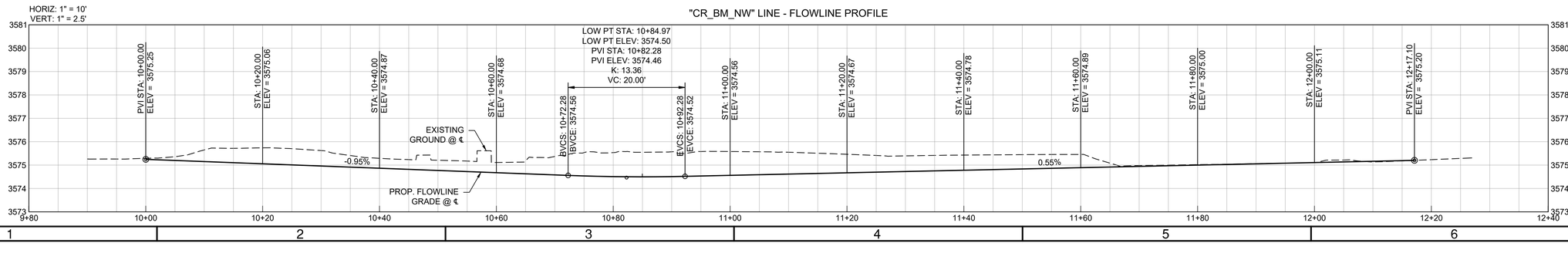
COB # 1TBKE



LEGEND:

TC	TOP OF CURB
FL	FLOW LINE
FG	FINISHED GRADE
X.X%	FLOW DIRECTION
	RUNNING SLOPE 7.5% MAX. (8.3% MAX. FINISHED SURFACE SLOPE)
	RUNNING SLOPE 4.0% MAX. (4.9% MAX. FINISHED SURFACE SLOPE)
	CROSS SLOPE 1.5% MAX. (2.0% MAX. FINISHED SURFACE SLOPE)
	COUNTER SLOPE 4.0% MAX. (5.0% MAX. FINISHED SURFACE SLOPE)
	FLARE SLOPE (10.0% MAX. FINISHED SURFACE SLOPE)
	LEVEL AREA (TURNING SPACE/LANDING)
	DETECTABLE WARNING SURFACE

NOTE: SLOPES HOLD OVER ELEVATIONS.



REGISTERED PROFESSIONAL ENGINEER
OREGON
SEPT. 11, 2018
CONOR R. COSTIGAN
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BEND BIKEWAYS NO. 1TBKE
BUTLER MARKET/BOYD ACRES INTERSECTION IMPROVEMENTS
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CITY OF BEND — DESCHUTES COUNTY, OREGON

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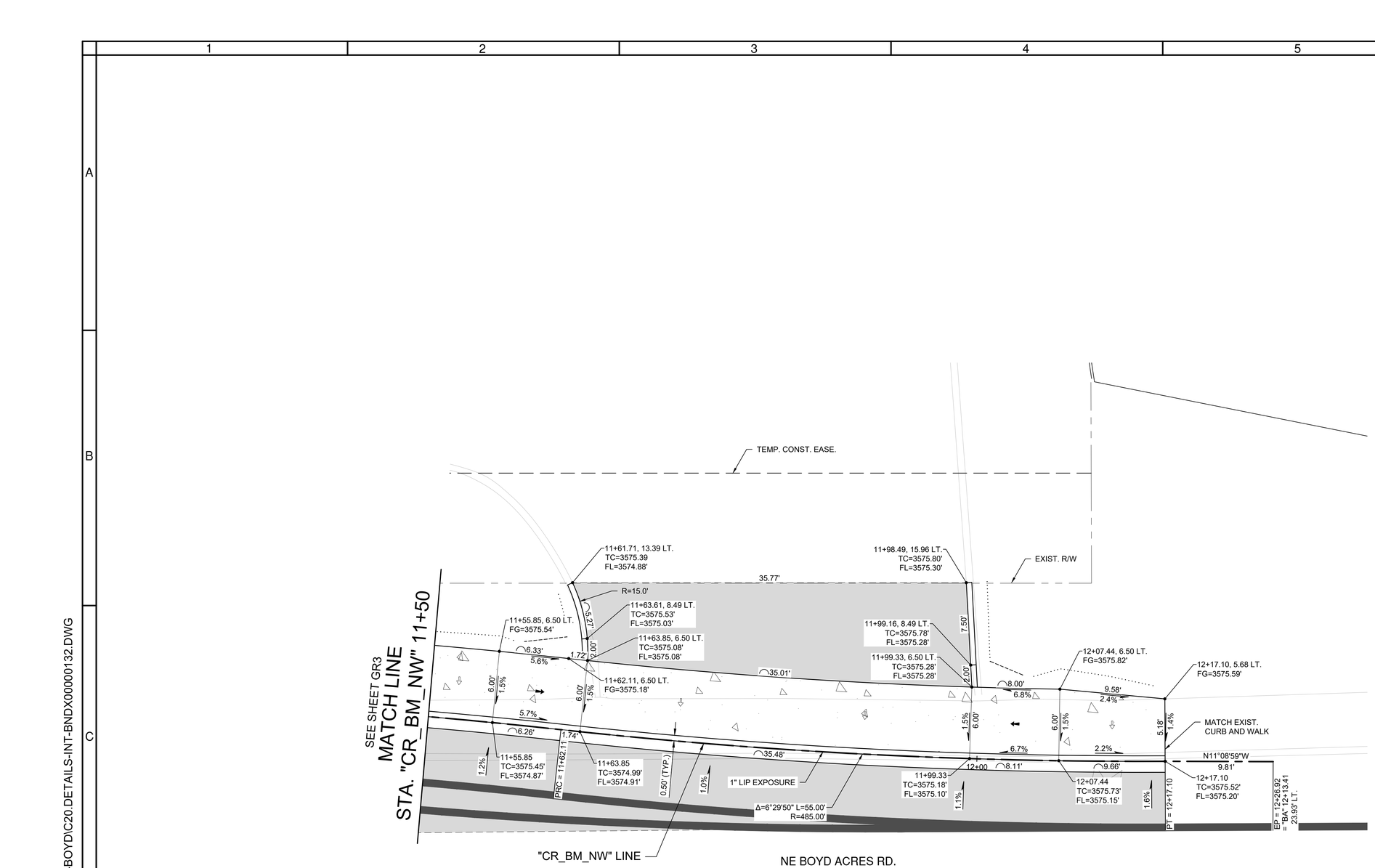
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DRAWN BY: CRCO
SCALE: 1" = 5'
FILE: C20.DETAILS-INT-BNDX0000132.DWG
DATE: 6/19/26

VERIFY SCALES
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BAR EQUALS ONE INCH ON ORIGINAL DRAWING

SHEET: GR3

COB # 1TBKE

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REGISTERED PROFESSIONAL ENGINEER
88394PE
OREGON
SEPT. 11, 2018
CONOR R. COSTIGAN
EXPIRES: 12/31/2027

BEND BIKEWAYS NO. 1TBKE
BUTLER MARKET/BOYD ACRES INTERSECTION IMPROVEMENTS
GRADING DETAILS

CITY OF BEND — DESCHUTES COUNTY, OREGON

REVISIONS:

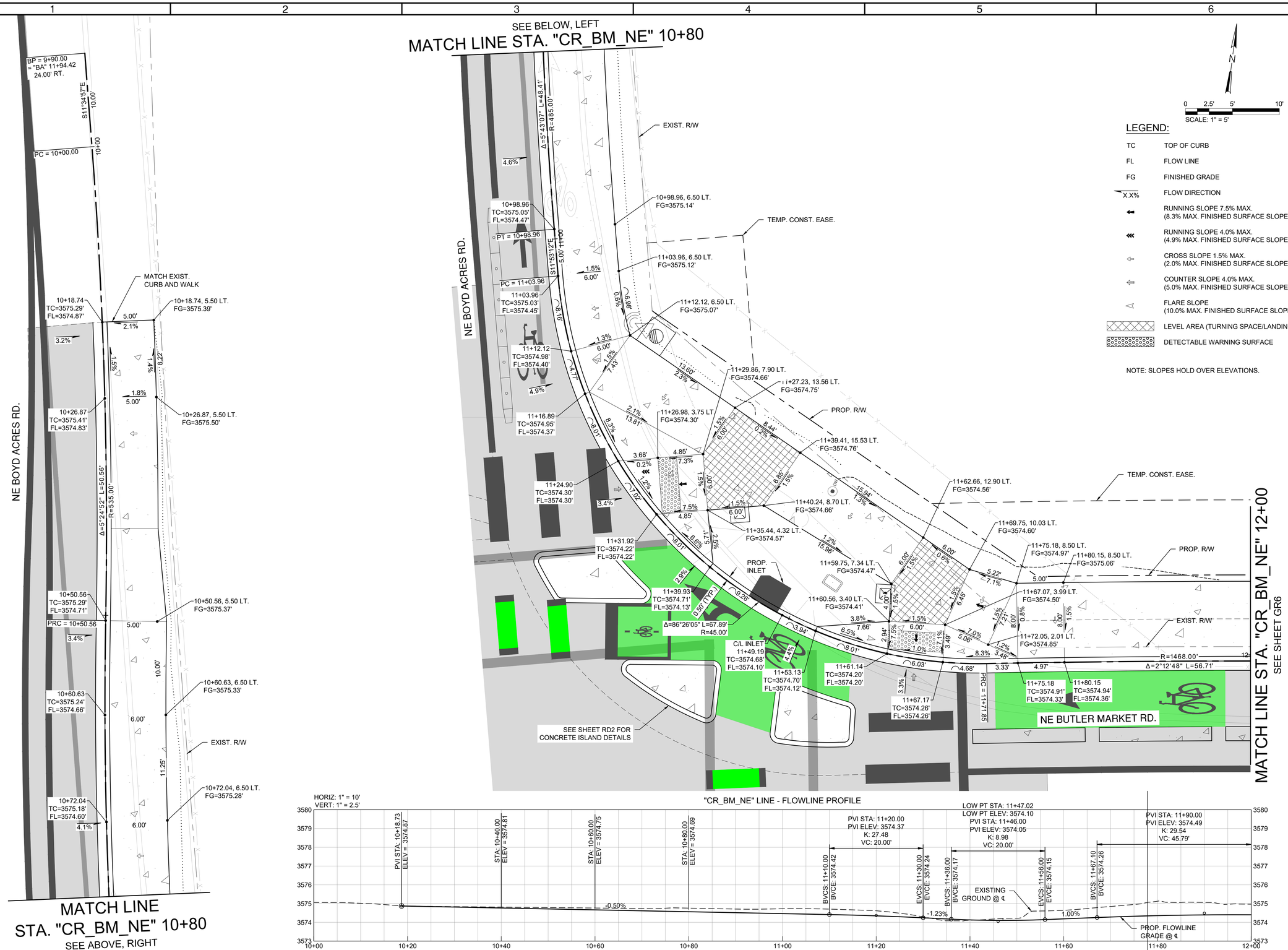
DAVID EVANS AND ASSOCIATES INC.
2943 NW Lolo Dr., Suite 275
Bend, Oregon 97703
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DESIGNED BY: CRCO
DRAWN BY: CRCO
SCALE: 1" = 5'
FILE: C20.DETAILS-INT-BNDX00000132.DWG
DATE: 6/19/26

VERIFY SCALES
0 1"
BAR EQUALS ONE INCH ON ORIGINAL DRAWING

SHEET: GR4

COB # 1TBKE



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REGISTERED PROFESSIONAL ENGINEER
88394PE
OREGON
SEPT. 11, 2018
CONOR R. COSTIGAN
EXPIRES: 12/31/2027

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BUTLER MARKET/BOYD ACRES INTERSECTION IMPROVEMENTS
GRADING DETAILS

CITY OF BEND — DESCHUTES COUNTY, OREGON

REVISIONS:

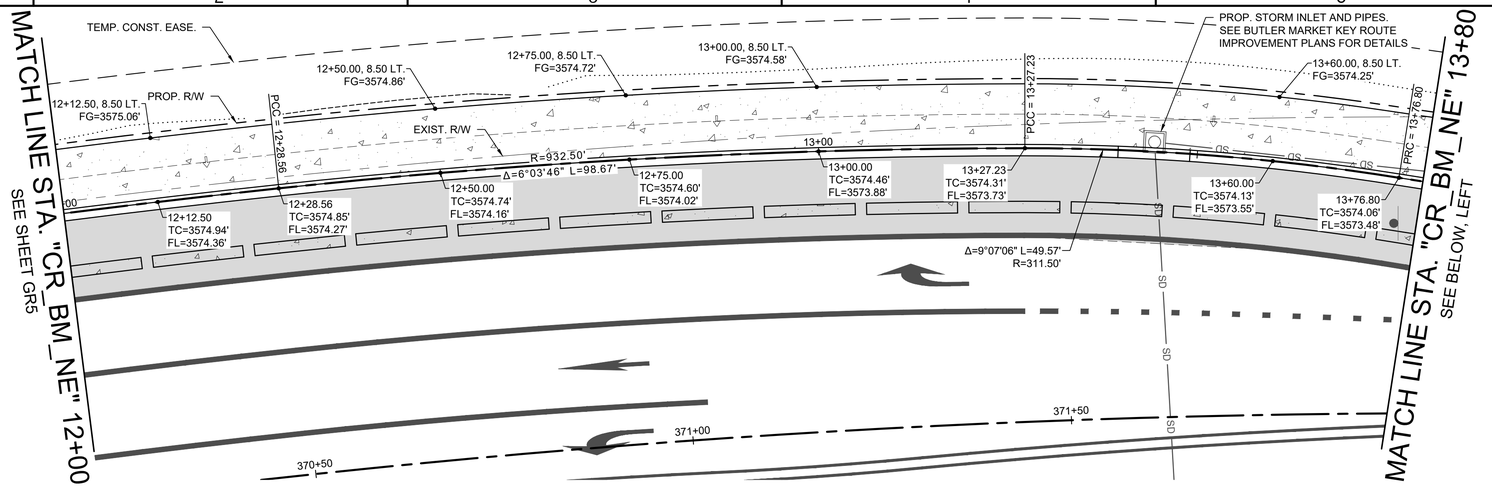
DAVID EVANS AND ASSOCIATES INC.
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Phone: 541.389.7614

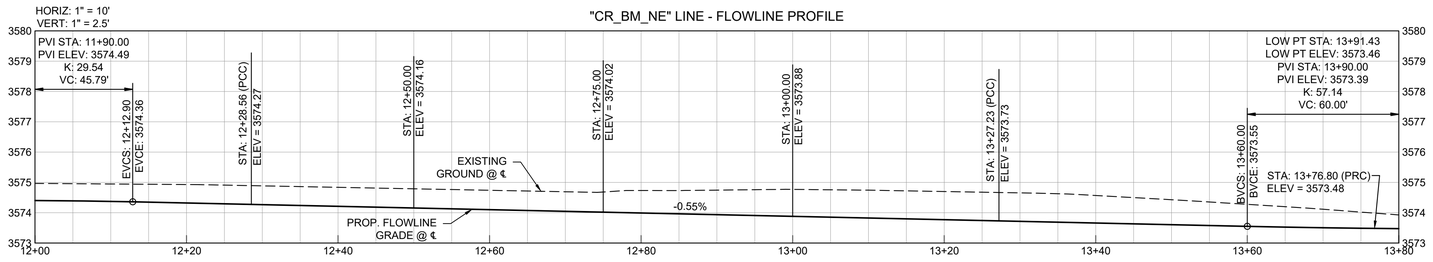
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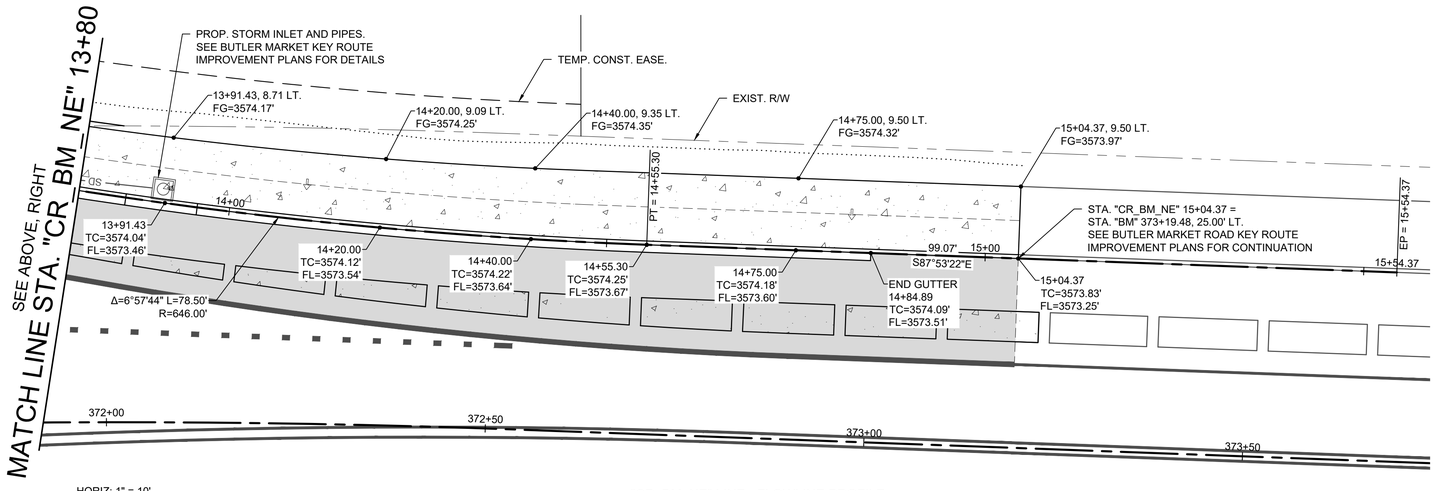
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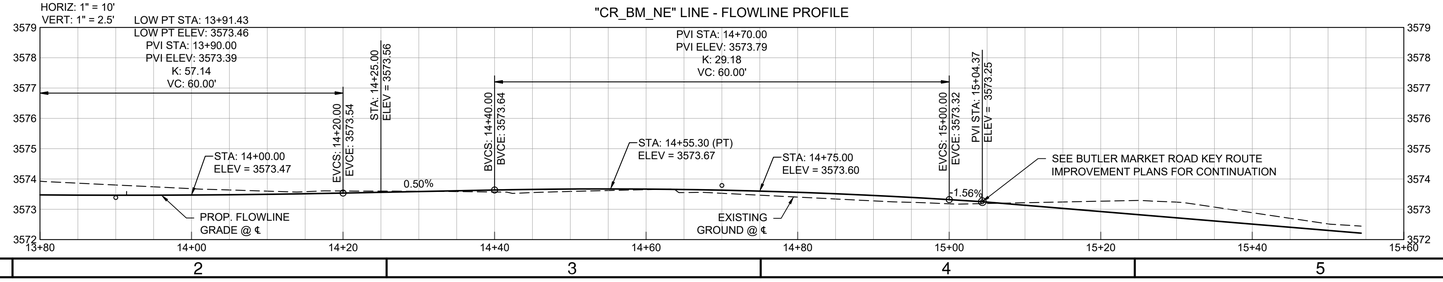
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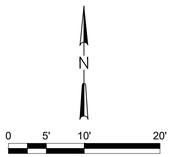
COB # 1TBKE











LEGEND:

⇦ CROSS SLOPE 1.5% MAX.
(2.0% MAX. FINISHED SURFACE SLOPE)

NOTE: SLOPES HOLD OVER ELEVATIONS.

REGISTERED PROFESSIONAL ENGINEER
OREGON
87394PE
SEPT. 11, 2018
CONOR R. COSTIGAN
EXPIRES: 12/31/2027

BEND BIKEWAYS NO. 1TBKE
BUTLER MARKET/BOYD ACRES INTERSECTION IMPROVEMENTS
GRADING DETAILS

CITY OF BEND — DESCHUTES COUNTY, OREGON

REVISIONS:

DAVID EVANS AND ASSOCIATES INC.
2843 NW Lolo Dr., Suite 275
Bend, Oregon 97703
Phone: 541.389.7614

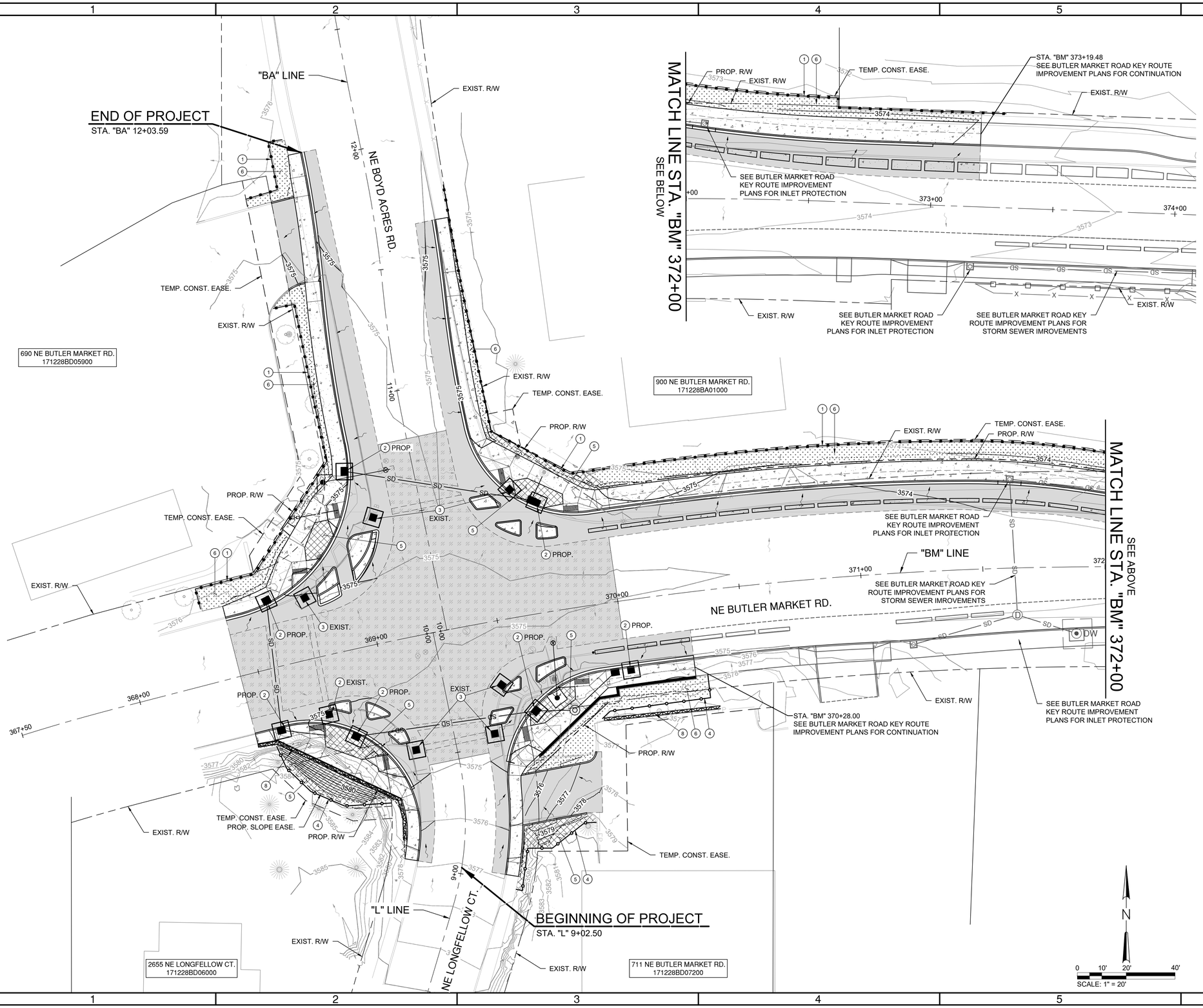
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DATE: 6/19/26

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BAR EQUALS ONE INCH ON ORIGINAL DRAWING

SHEET: GR6

COB # 1TBKE

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EROSION CONTROL NOTES

1. CONSTRUCT SEDIMENT FENCE (PER COB STD. DWG. E-1)
2. INSTALL INLET PROTECTION, SEDIMENT DAM (PER COB STD. DWG. E-2A)
3. INSTALL INLET PROTECTION, FILTER INSERT (PER COB STD. DWG. E-2B)
4. INSTALL TREE PROTECTION FENCING (PER COB STD. DWG. E-3)
5. APPLY TEMP. MULCHING, STRAW ACCORDING TO SOIL EXPOSURE LIMITATIONS (SEE SPECS SECTION 00280.42)
6. APPLY TEMP. MULCHING, COMPOST TO EXPOSED SOILS
7. CONSTRUCT CONCRETE TRUCK WASH OUT - FIELD LOCATE AS DIRECTED OR APPROVED (PER ODOT STD. DWG. RD1070)
8. INSTALL SEDIMENT BARRIER, TYPE 3 (WATTLES) (PER COB STD. DWG. E-4)

LEGEND

- INLET PROTECTION
- SEDIMENT FENCE
- STRAW WATTLE
- TREE PROTECTION FENCING
- FILL SLOPE
- CUT SLOPE
- XXXX PROPOSED 1' CONTOURS
- XXXX EXISTING 1' CONTOURS
- PROP. DRAINAGE DIRECTION
- EXIST. DRAINAGE DIRECTION
- ASPHALT PAVEMENT
- CONCRETE PAVEMENT
- 2-INCH DEEP COLD PLANE PAVEMENT REMOVAL
- TEMP. MULCHING, STRAW
- TEMP. MULCHING, COMPOST

GENERAL NOTES

1. SEE DEMOLITION PLANS FOR TREES, FENCES, WALLS AND OTHER EXISTING FEATURES TO BE PROTECTED.
2. WHERE SEDIMENT BARRIER, TYPE 3 (WATTLES) ARE SHOWN INSIDE THE LIMITS OF CONSTRUCTION AND GRADING, INSTALL SEDIMENT BARRIERS AFTER FINAL GRADING IS COMPLETE.
3. SEE SHT. G2 FOR EROSION CONTROL AND STORMWATER POLLUTION PREVENTION GENERAL NOTES.

REGISTERED PROFESSIONAL ENGINEER
OREGON
SEPT. 11, 2018
CONOR R. COST I CAN
EXPIRES: 12/31/2027

BEND BIKEWAYS NO. 1TBKE
BUTLER MARKET/BOYD ACRES INTERSECTION IMPROVEMENTS
EROSION CONTROL PLAN
CITY OF BEND — DESCHUTES COUNTY, OREGON

REVISIONS:

DAVID EVANS AND ASSOCIATES INC.
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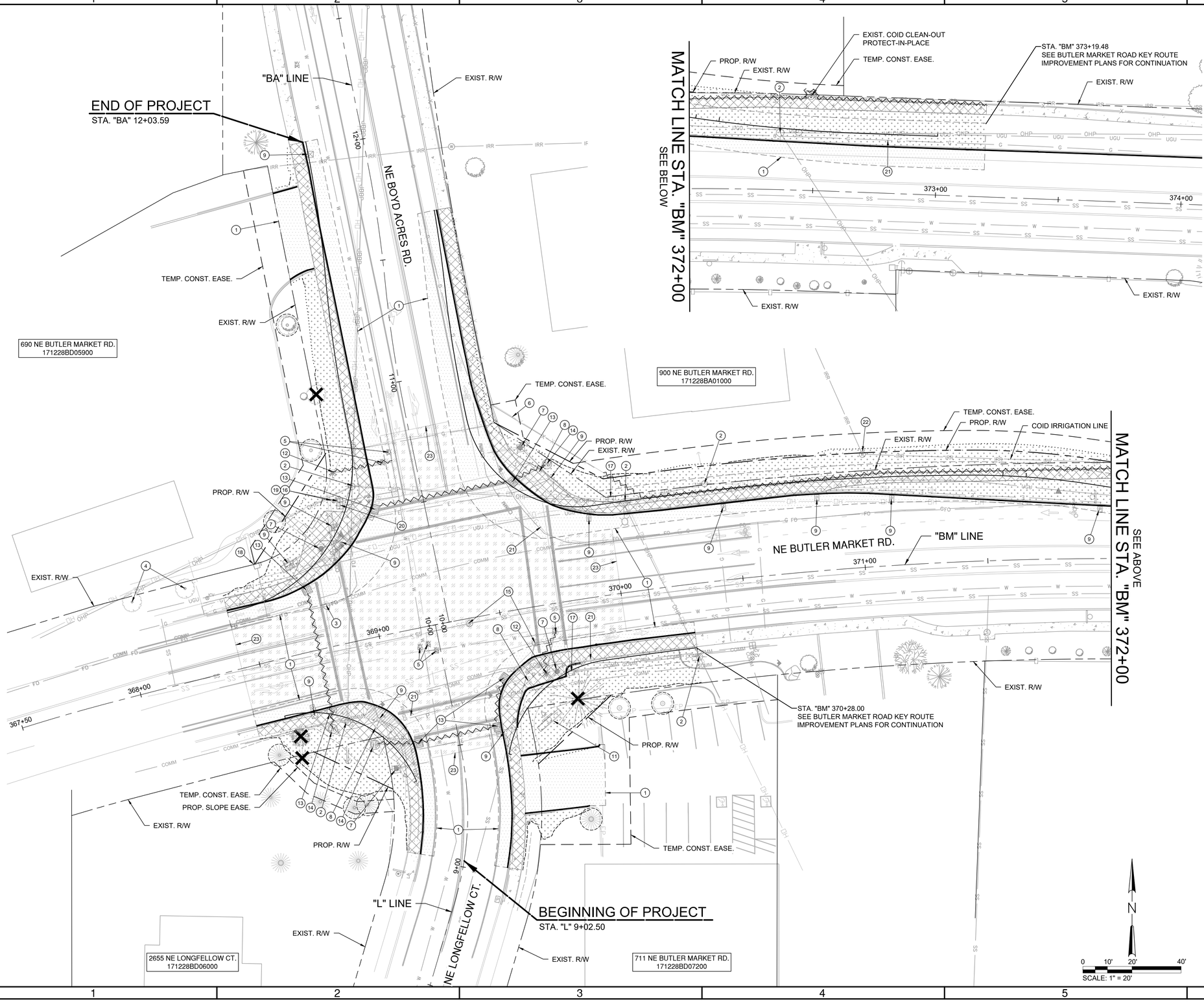
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DATE: 6/19/26

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SHEET: EC1

COB # 1TBKE

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DEMOLITION NOTES

1. SAWCUT EXIST. AC PAVEMENT
2. RELOCATE EXIST. UTILITY POLE (AND GUY ANCHOR WHEN APPLICABLE) BY PP&L
3. PROTECT EXIST. COMM. MANHOLE
4. PROTECT EXIST. TREE
5. PROTECT EXIST. WATER VALVE
6. PROTECT EXIST. FENCE
7. REMOVE EXIST. SIGNAL POLE PER TS2
8. REMOVE EXIST. PED. POLE PER TS2
9. REMOVE EXIST. SIGNAL EQUIPMENT PER TS2
10. NOT USED
11. REMOVE EXIST. MONUMENT SIGN
12. REMOVE AND SALVAGE EXIST. FIRE HYDRANT, RELOCATE PER C1
13. REMOVE EXIST. CATCH BASIN
14. PROTECT EXIST. DRYWELL
15. PROTECT EXIST. SANITARY SEWER MANHOLE
16. REMOVE AND SALVAGE EXIST. WATER METER, RELOCATE PER C1
17. RELOCATE EXIST. COMM. CABINET, BY OTHERS.
18. PROTECT EXIST. COMM. CABINET
19. REMOVE AND SALVAGE EXIST. IRRIGATION CONTROL VALVE, RELOCATE PER C1
20. REMOVE EXIST. WATER METER
21. PRESERVE EXIST. GAS LINES. USE EXTREME CAUTION
22. PROTECT EXIST. IRRIGATION CLEAN-OUT AND ADJUST TO FINISHED GRADE PER SHEET C1.
23. 2-INCH DEEP COLD PLANE PAVEMENT REMOVAL

LEGEND

- EXIST. DECIDUOUS TREE
- EXIST. CONIFEROUS TREE
- TREE PRESERVATION ZONE / SPECIAL AREA OF CONCERN
- REMOVE EXISTING TREE
- REMOVE EXIST. ASPHALT, BASE MATERIALS AND OTHER UNCLASSIFIED MATERIAL
- REMOVE EXIST. CONCRETE, BASE MATERIALS AND OTHER UNCLASSIFIED MATERIAL
- 2-INCH DEEP COLD PLANE PAVEMENT REMOVAL
- REMOVE EXIST. GRAVEL SURFACE, BASE MATERIAL AND OTHER UNCLASSIFIED MATERIAL
- CLEARING AND GRUBBING
- FILL SLOPE
- CUT SLOPE
- REMOVE EXIST. CURB
- SAWCUT
- FENCE / PIPE REMOVAL

GENERAL NOTES

1. REMOVAL OF EXIST. SURFACES INCLUDING ASPHALT, CONCRETE, SIDEWALKS, CURBS AND GRAVEL IS INCLUDED IN THE GENERAL EXCAVATION QUANTITY.
2. ALL CONCRETE CURBS AND SIDEWALKS IDENTIFIED FOR REMOVAL SHALL BE REMOVED TO THE CLOSEST CONTROL JOINT, UNLESS OTHERWISE NOTED IN THESE PLANS.
3. SEE SIGNING & STRIPING PLANS (SHEETS ST1 & ST2) FOR SIGN & PAVEMENT MARKING REMOVALS.
4. SEE TRAFFIC SIGNAL PLANS (SHEET TS2) FOR TRAFFIC SIGNAL REMOVAL DETAILS.
5. PROTECT TREES AND UTILITIES UNLESS OTHERWISE NOTED ON PLANS.
6. CERTIFIED ARBORIST MUST BE ON SITE AND OBSERVE ALL DEMOLITION AND EXCAVATION WITHIN VICINITY OF TREES TO BE PROTECTED.
7. REMOVAL AND PROTECTION OF TREES IS AN ESTIMATE. CONTRACTOR SHALL WALK THE SITE WITH A CERTIFIED ARBORIST AFTER SLOPE STAKING HAS BEEN PROVIDED TO IDENTIFY REMOVAL AND PRESERVATION OF TREES.
8. SALVAGE EXIST. ATC CONTROLLER TO CITY OR ODOT SPARE PARTS.

REGISTERED PROFESSIONAL ENGINEER
OREGON
SEPT. 11, 2018
CONOR R. COST I CAN
EXPIRES: 12/31/2027

BEND BIKEWAYS NO. 1TBKE
BUTLER MARKET/BOYD ACRES INTERSECTION IMPROVEMENTS
DEMOLITION PLANS

CITY OF BEND — DESCHUTES COUNTY, OREGON

REVISIONS:

DAVID EVANS AND ASSOCIATES INC.
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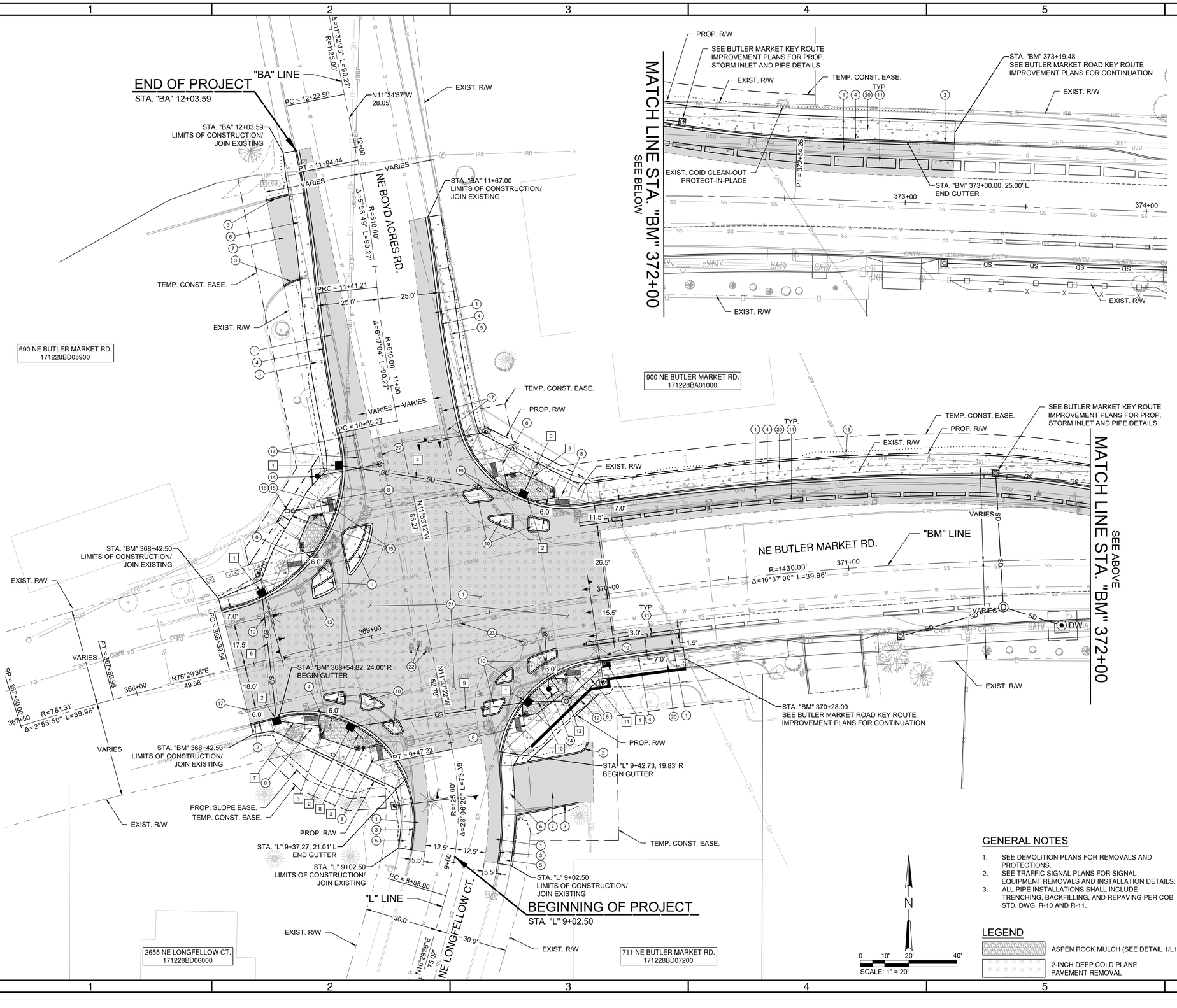
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DATE: 6/19/26

VERIFY SCALES
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BAR EQUALS ONE INCH ON ORIGINAL DRAWING

SHEET: D1

COB # 1TBKE

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CONSTRUCTION NOTES

1. CONSTRUCT ASPHALT ROADWAY (SEE TYPICAL SECTIONS FOR DETAILS)
2. CONSTRUCT CITY STANDARD CURB, E=7" (PER COB STD. DWG. R-3)
3. CONSTRUCT CITY STANDARD CURB, E=6" (PER COB STD. DWG. R-3)
4. CONSTRUCT CITY STANDARD CURB AND GUTTER, E=7" (PER COB STD. DWG. R-3)
5. CONSTRUCT CONCRETE SIDEWALK (PER COB STD. DWG. R-4B)
6. CONSTRUCT REINFORCED CONCRETE DRIVEWAY APPROACH, CURB-TIGHT, FULLY LOWERED (ALTERNATE C) (PER COB STD. DWG. R-5C) SEE GR2 & GR4 FOR GRADING DETAILS
7. CONSTRUCT ASPHALT DRIVEWAY (PER DETAIL 1/RD1) SEE GRADING DETAILS
8. CONSTRUCT PERPENDICULAR CURB RAMP WITH DETECTABLE WARNING SURFACE (PER COB STD. DWGS. R-6, R-6A, & R-6C) SEE GRADING DETAILS
9. CONSTRUCT MOUNTABLE TRUCK APRON (SEE SHEET RD2 FOR DETAILS)
10. CONSTRUCT CONCRETE ISLAND (SEE SHEET RD2 FOR DETAILS)
11. STA. "BM" 369+92.29 TO STA. "BM" 373+22.50, LT. STA. "BM" 369+87.66 TO STA. "BM" 370+27.19, RT. CONSTRUCT TRAFFIC SEPARATORS AND INSTALL TUBULAR MARKER (PER DETAILS 3/RD1 & 4/RD1)
12. CONSTRUCT MODULAR BLOCK RETAINING WALL SEE RETAINING WALL SHEET
13. ADJUST EXISTING TELECOMM. MANHOLE
14. RELOCATE EXISTING FIRE HYDRANT AND CONNECT TO EXIST. TEE AT MAIN WITH NEW SERVICE LINE AND VALVE WITH RESTRAINED JOINTS. CONSTRUCT CONCRETE HYDRANT PAD. (PER COB STD. DWG. W-7 AND W-8)
15. RELOCATE EXISTING WATER METER AND REINSTALL COMPLETE IN ACCORDANCE WITH COB STD. DWGS. W-5 & W-5A, INCLUDING CONSTRUCTION OF ANGLE METER STOPS. SET METER BOX FLUSH TO ADJACENT GRADE.
16. RELOCATE EXISTING DOUBLE CHECK VALVE ASSEMBLY (DCVA) AND REINSTALL COMPLETE IN ACCORDANCE WITH COB STD. DWGS. W-5 & W-5A. SET BOX FLUSH TO ADJACENT GRADE.
17. STA. "BM" 368+40.00 TO STA. "BM" 368+60.26, RT. STA. "BA" 10+66.58 TO STA. "BA" 10+86.58 LT. STA. "BA" 10+66.58 TO STA. "BA" 10+86.58 RT. CONSTRUCT DURA-CURB SYSTEM, OR APPROVED EQUAL, WITH DELINEATOR POSTS INSTALL DURA-CURB NOSE END SECTIONS
18. ADJUST IRRIGATION CLEAN-OUT TO FINISH GRADE
19. SPECIAL UTILITY POTHOLE LOCATION
20. CONSTRUCT CONCRETE SIDEWALK WITH SAWCUT JOINT (PER DETAIL 2/RD1)
21. CONSTRUCT 2-INCH DEEP COLD PLANE PAVEMENT REMOVAL
22. ADJUST WATER VALVE TO FINISH GRADE
23. ADJUST SEWER MANHOLE TO FINISH GRADE

DRAINAGE NOTES

1. CONSTRUCT STANDARD CURB INLET (PER COB STD. DWG. STRM-9)
2. CONSTRUCT STORMWATER SEDIMENTATION MANHOLE ALTERNATE (48INCH DIAMETER) (PER COB STD. DWG. STRM-7A AND STRM-9)
3. ADJUST EXISTING DRYWELL CONNECT PIPE TO EXISTING STRUCTURE
4. INSTALL 8" STORM SEWER AWWA C900 PVC, PIPE 77'
5. INSTALL 8" STORM SEWER ASTM D3034 PVC, PIPE 13'
6. INSTALL 12" STORM SEWER DUCTILE IRON PIPE - 53' WITH CONCRETE SADDLE AT DUCT BANK CROSSING PER ODOT STD. DWG. RD306
7. INSTALL 12" STORM SEWER ASTM D3034 PVC, PIPE 20'
8. INSTALL 8" STORM SEWER ASTM D3034 PVC, PIPE 9'
9. INSTALL 8" STORM SEWER DUCTILE IRON, PIPE 74'
10. INSTALL 8" STORM SEWER AWWA C900 PVC, PIPE 16'
11. INSTALL 8" STORM SEWER AWWA C900 PVC, PIPE 23'
12. CONSTRUCT STANDARD STORMWATER MANHOLE PER COB STD. DWG. S-3C

GENERAL NOTES

1. SEE DEMOLITION PLANS FOR REMOVALS AND PROTECTIONS.
2. SEE TRAFFIC SIGNAL PLANS FOR SIGNAL EQUIPMENT REMOVALS AND INSTALLATION DETAILS.
3. ALL PIPE INSTALLATIONS SHALL INCLUDE TRENCHING, BACKFILLING, AND REPAVING PER COB STD. DWG. R-10 AND R-11.

LEGEND

ASPEN ROCK MULCH (SEE DETAIL 1/L1)

2-INCH DEEP COLD PLANE PAVEMENT REMOVAL

REGISTERED PROFESSIONAL ENGINEER
#88394PE
OREGON
SEPT. 11, 2018
CONOR R. COST I GAN
EXPIRES: 12/31/2027

BEND BIKEWAYS NO. 1TBKE
BUTLER MARKET/BOYD ACRES INTERSECTION IMPROVEMENTS
CIVIL PLANS

CITY OF BEND — DESCHUTES COUNTY, OREGON

REVISIONS:

DAVID EVANS AND ASSOCIATES INC.
2843 NW Lolo Dr., Suite 275
Bend, Oregon 97703
Phone: 541.389.7614

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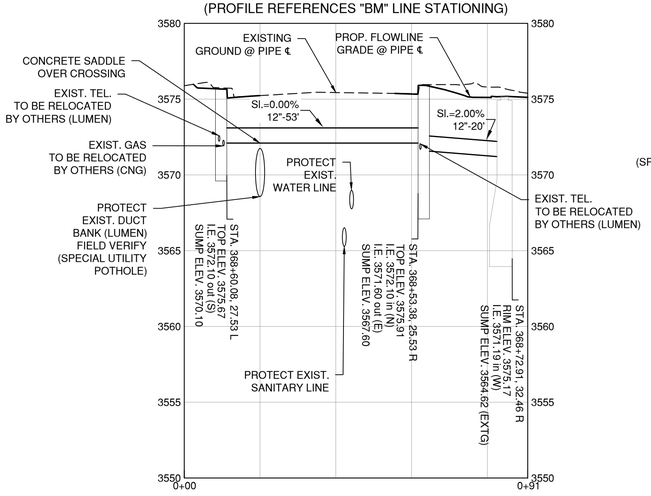
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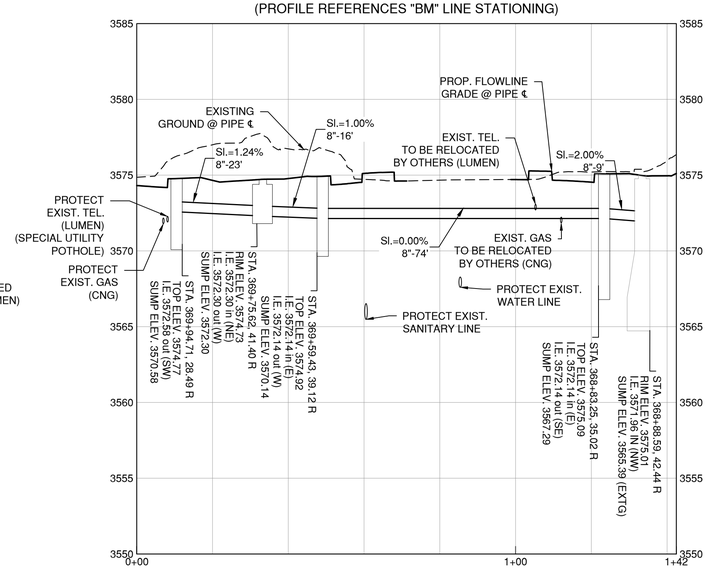
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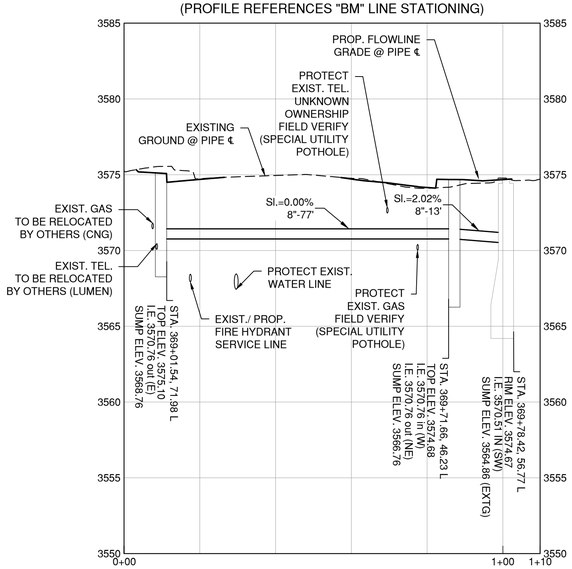
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(PROFILE REFERENCES "BM" LINE STATIONING)

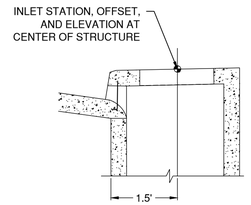


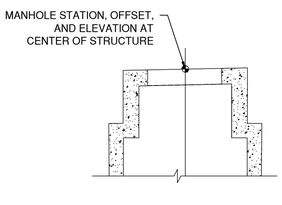
STORM PROFILE - NE LONGFELLOW CT.
(PROFILE REFERENCES "BM" LINE STATIONING)



STORM PROFILE - NE BOYD ACRES RD.
(PROFILE REFERENCES "BM" LINE STATIONING)







REGISTERED PROFESSIONAL ENGINEER
63117PE
OREGON
JAN. 12, 2021
GAVIN DAVID POWELL
EXPIRES 12-31-2026

BEND BIKEWAYS NO. 1TBKE
BUTLER MARKET/BOYD ACRES INTERSECTION IMPROVEMENTS
STORM PROFILES

CITY OF BEND — DESCHUTES COUNTY, OREGON

REVISIONS: SNO

DAVID EVANS AND ASSOCIATES INC.
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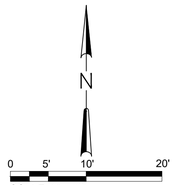
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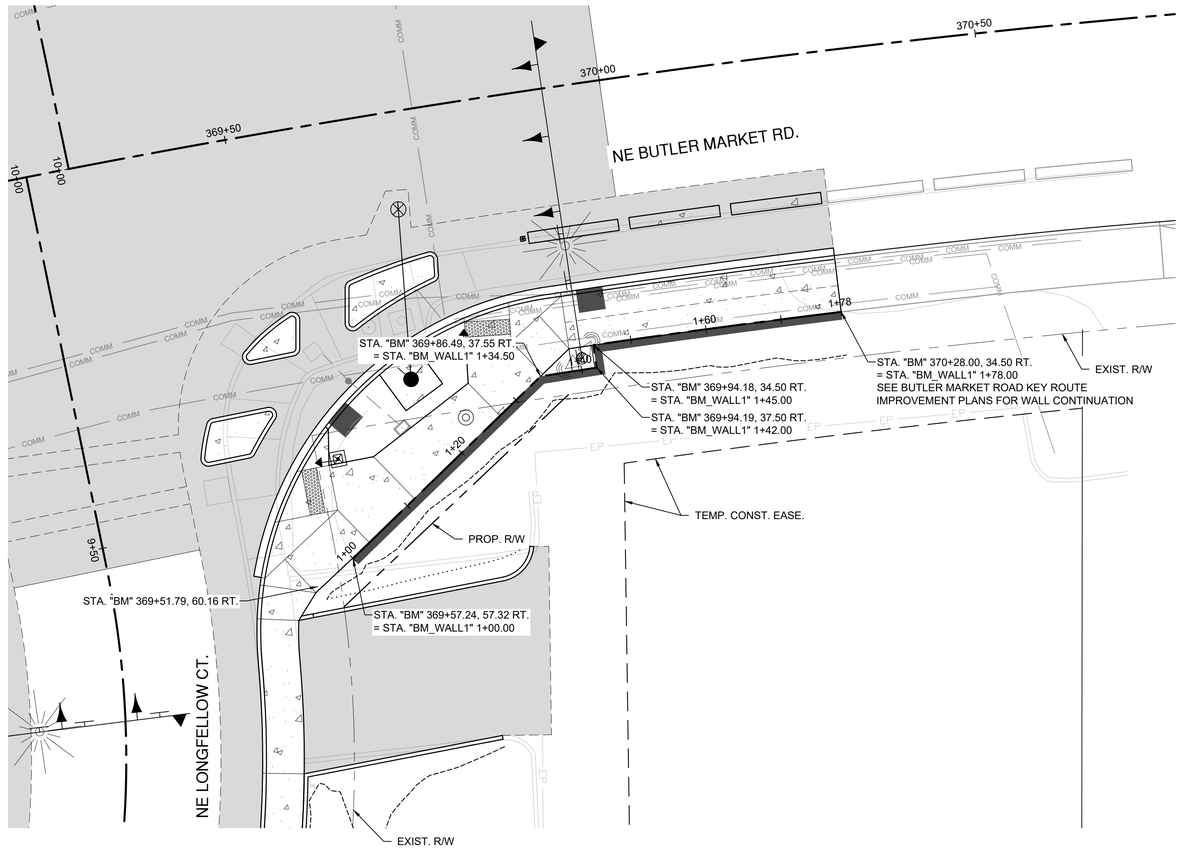
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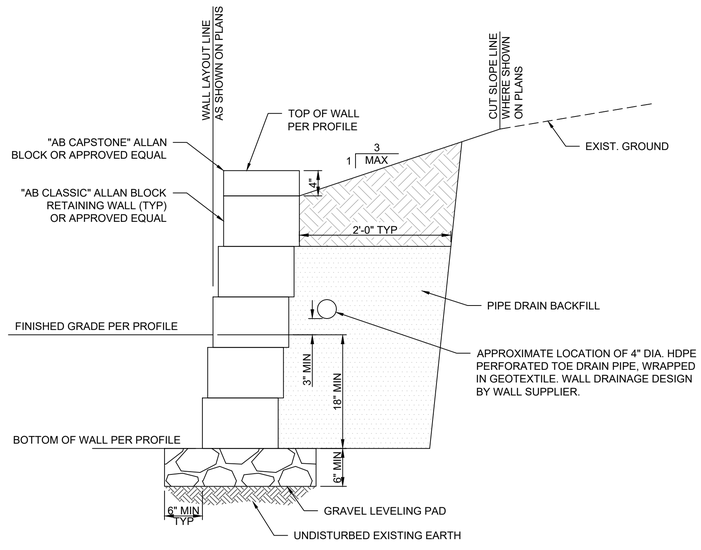
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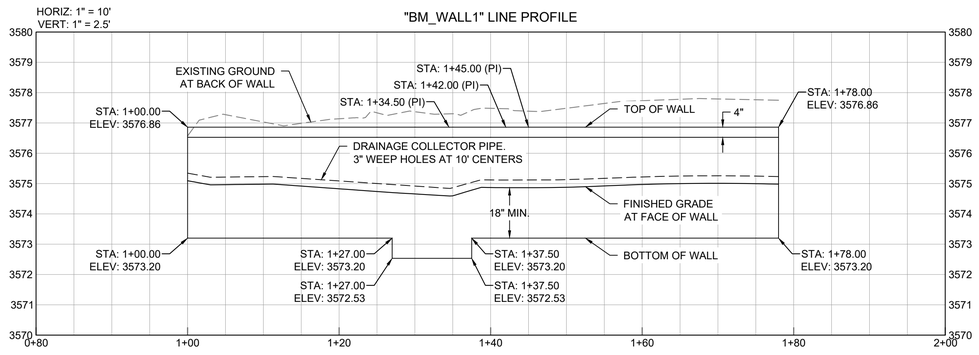




BLOCK RETAINING WALL DETAILS

PER MANUFACTURER RECOMMENDATIONS
NOT TO SCALE

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REGISTERED PROFESSIONAL ENGINEER
63117PE
OREGON
JAN. 12, 2021
GAVIN DAVID POWELL
EXPIRES 12-31-2026

BEND BIKEWAYS NO. 1TBKE
BUTLER MARKET/BOYD ACRES INTERSECTION IMPROVEMENTS
RETAINING WALL DETAILS

CITY OF BEND — DESCHUTES COUNTY, OREGON

REVISIONS:

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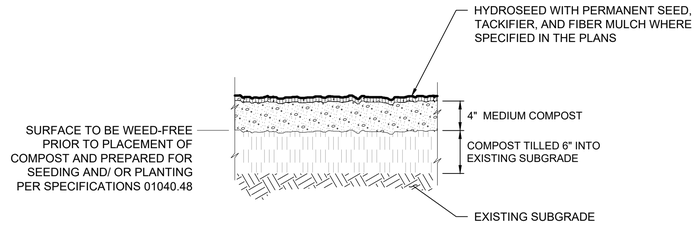
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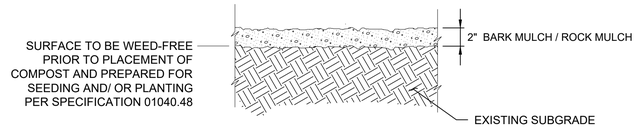
COB # 1TBKE

NOTES:
1. SEE STANDARD SPECIFICATIONS 03020 FOR COMPOST SPECIFICATIONS.



NOT TO SCALE

APPLICATION - PERMANENT VEGETATIVE COVER | 1



NOT TO SCALE

APPLICATION - PERMANENT MULCHING | 2

REGISTERED PROFESSIONAL ENGINEER
88394PE
OREGON
SEPT. 11, 2018
CONOR R. COSTIGAN
EXPIRES: 12/31/2027

BEND BIKEWAYS NO. 1TBKE
BUTLER MARKET/BOYD ACRES INTERSECTION IMPROVEMENTS
LANDCAPE DETAILS

CITY OF BEND — DESCHUTES COUNTY, OREGON

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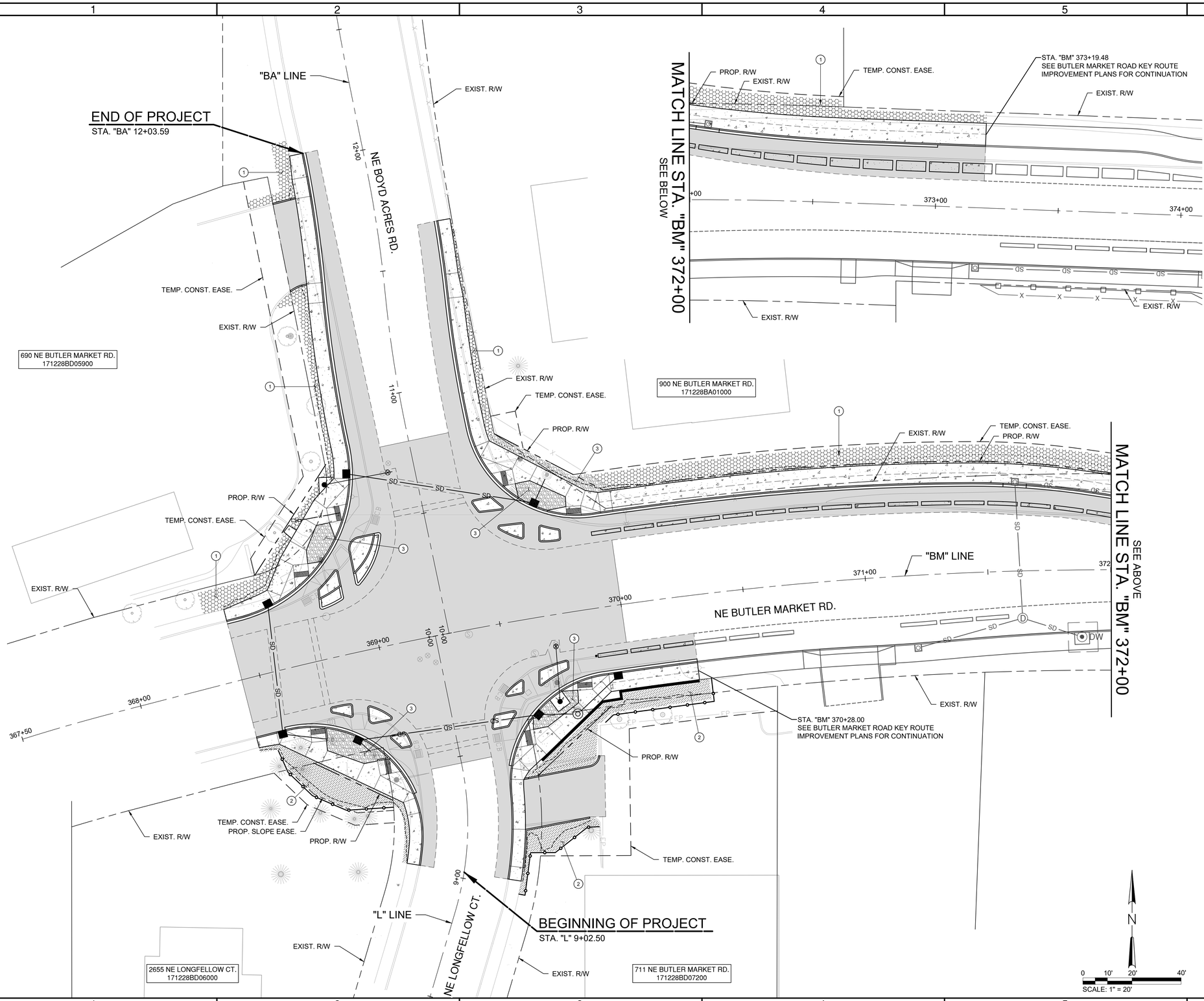
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SHEET: L1

COB # 1TBKE

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EROSION CONTROL NOTES

1. APPLY PERMANENT SEEDING, LAWN SEED OVER COMPOST, TO MATCH EXISTING (SEE SHEET L1 FOR DETAILS)
2. APPLY BARK MULCH TO PERMANENTLY STABILIZE AND MATCH EXISTING (SEE SHEET L1 FOR DETAILS)
3. APPLY ASPEN ROCK MULCH TO PERMANENTLY STABILIZE AND MATCH EXISTING (SEE SHEET L1 FOR DETAILS)

LEGEND

- TREE PROTECTION FENCING
- FILL SLOPE
- CUT SLOPE
- ASPHALT PAVEMENT
- CONCRETE PAVEMENT
- ASPEN ROCK MULCH
- BARK MULCH
- PERMANENT SEEDING NO. 1, LAWN SEED (SEE SPECS SECTION 01030.13(f)B)

GENERAL NOTES

1. SEE DEMOLITION PLANS FOR TREES, FENCES, WALLS AND OTHER EXISTING FEATURES TO BE PROTECTED.
2. ALL PLANTING AND LANDSCAPE FEATURES THAT ARE LOCATED BEHIND THE PROPOSED BACK OF WALK THAT ARE DAMAGED BY CONSTRUCTION ACTIVITIES SHALL BE REPLACED IN-KIND TO THE SATISFACTION OF THE ENGINEER.

REGISTERED PROFESSIONAL ENGINEER
88394PE
OREGON
SEPT. 11, 2018
CONOR R. COST I GAN
EXPIRES: 12/31/2027

BEND BIKEWAYS NO. 1TBKE
BUTLER MARKET/BOYD ACRES INTERSECTION IMPROVEMENTS
LANDSCAPE PLAN

CITY OF BEND — DESCHUTES COUNTY, OREGON

REVISIONS:

DAVID EVANS AND ASSOCIATES INC.
2843 NW Lolo Dr., Suite 275
Bend, Oregon 97703
Phone: 541.389.7614

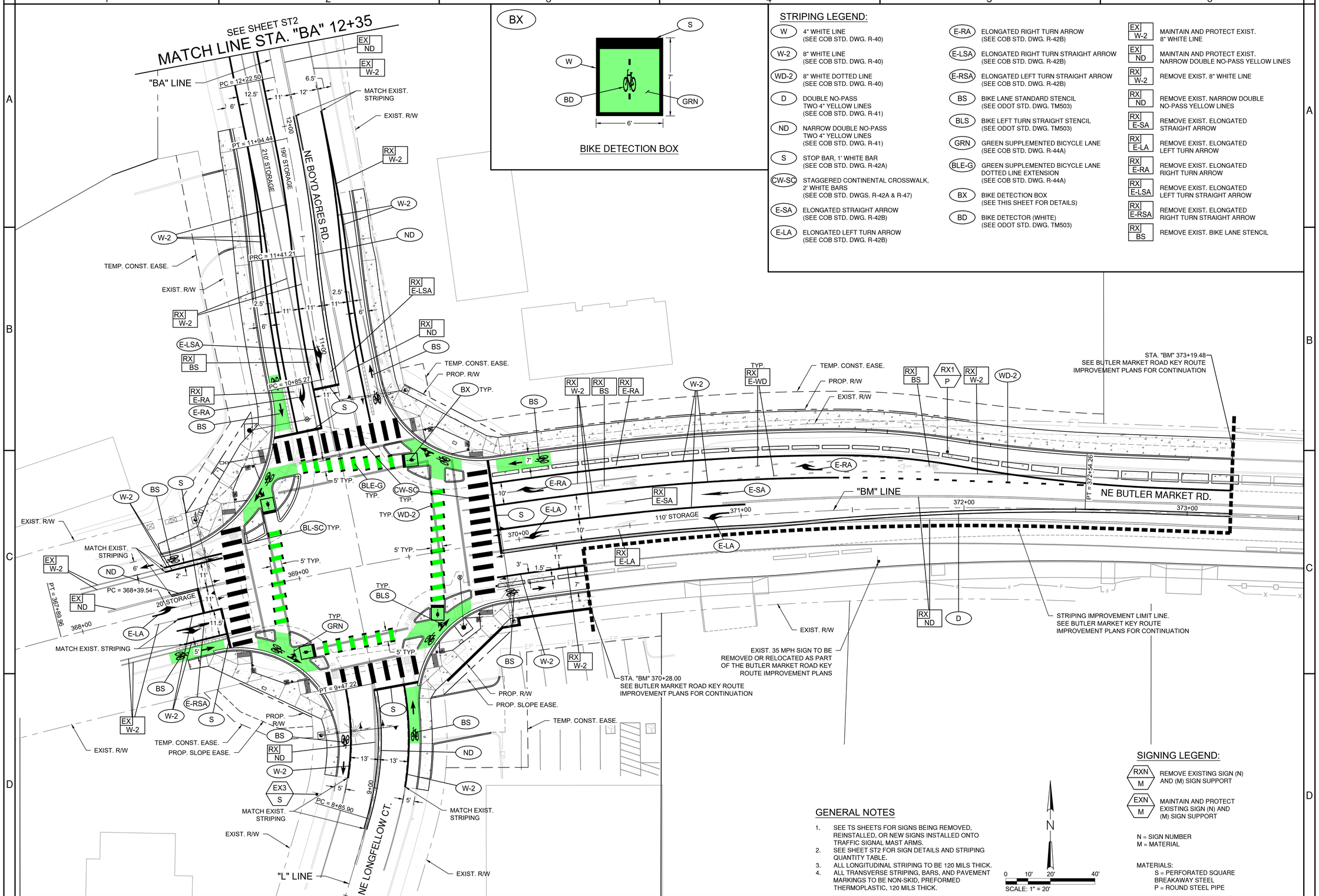
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DATE: 6/19/26

VERIFY SCALES
0 1"
BAR EQUALS ONE INCH ON ORIGINAL DRAWING

SHEET: L2

COB # 1TBKE

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GENERAL NOTES

1. SEE TS SHEETS FOR SIGNS BEING REMOVED, REINSTALLED, OR NEW SIGNS INSTALLED ONTO TRAFFIC SIGNAL MAST ARMS.
2. SEE SHEET ST2 FOR SIGN DETAILS AND STRIPING QUANTITY TABLE.
3. ALL LONGITUDINAL STRIPING TO BE 120 MILS THICK.
4. ALL TRANSVERSE STRIPING, BARS, AND PAVEMENT MARKINGS TO BE NON-SKID, PREFORMED THERMOPLASTIC, 120 MILS THICK.

REGISTERED PROFESSIONAL ENGINEER
OREGON
SEPT. 11, 2018
CONOR R. COSTIGAN
EXPIRES: 12/31/2027

BEND BIKEWAYS NO. 1TBKE
BUTLER MARKET/BOYD ACRES INTERSECTION IMPROVEMENTS
SIGNING AND STRIPING PLANS

CITY OF BEND
DESCHUTES COUNTY, OREGON

REVISIONS:

DAVID EVANS AND ASSOCIATES INC.
2943 NW Lolo Dr., Suite 275
Bend, Oregon 97703
Phone: 541.389.7614

DESIGNED BY: CRCO
DRAWN BY: CRCO
SCALE: 1" = 20'
FILE: C:\SIGN_STRIPE-BNDX0000132.DWG
DATE: 6/19/26

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SHEET: ST1

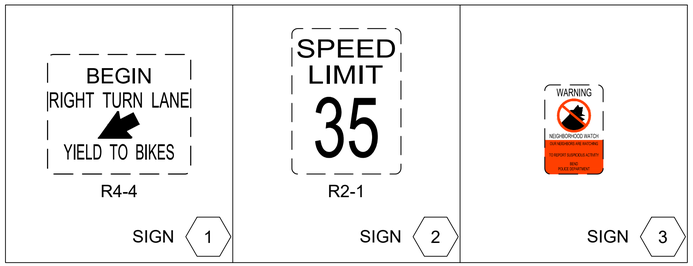
COB # 1TBKE

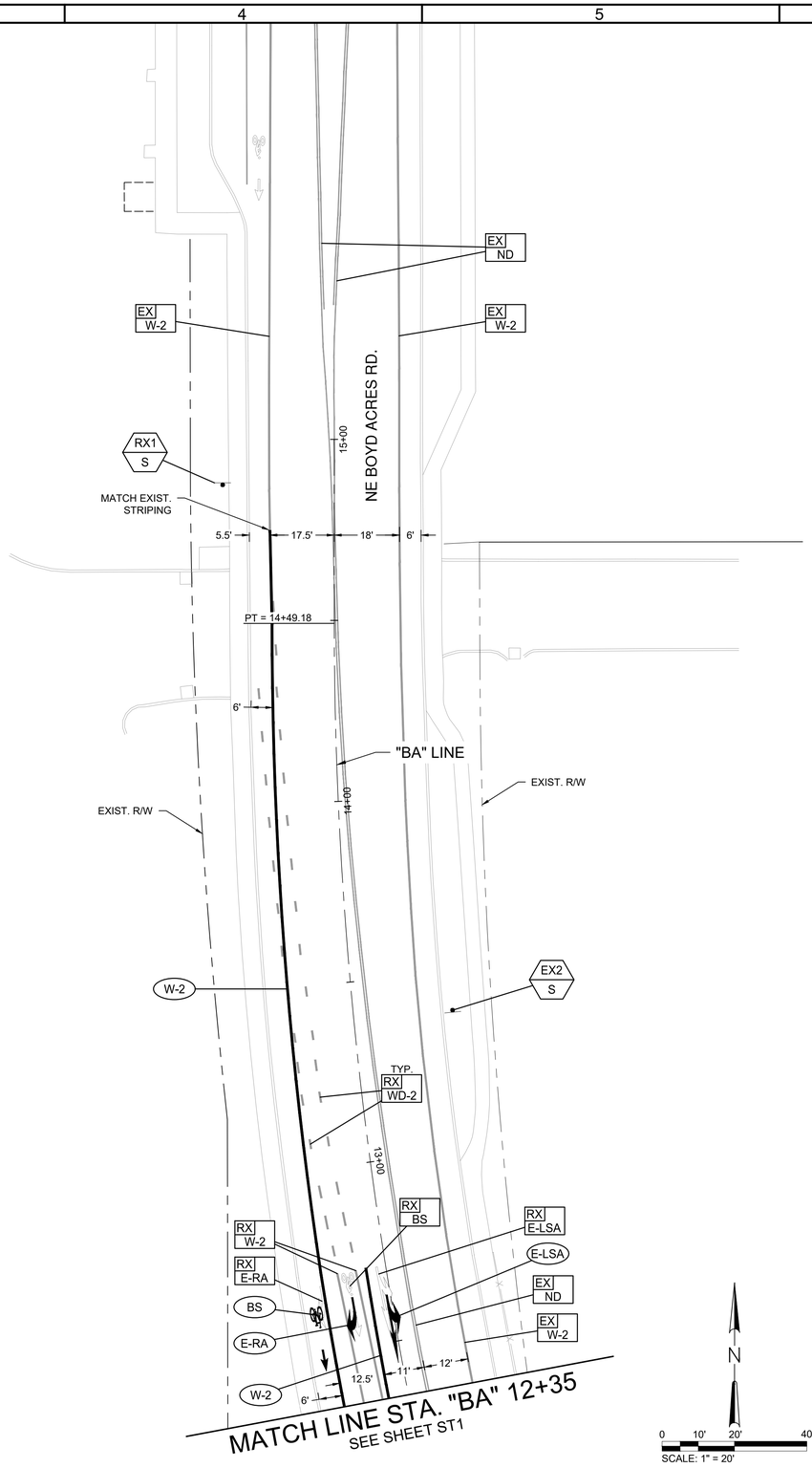
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STRIPING QUANTITIES

DESCRIPTION	4" LINE	8" LINE	12" BAR	24" BAR	LEGENDS, ARROWS	BIKE LANE STENCIL	BIKE DETECTOR
4" YELLOW LINE	1050'						
4" WHITE LINE	441'						
8" WHITE LINE		1437'					
8" WHITE DOTTED LINE		128'					
STOP BAR, 1' WHITE BAR			126'				
BIKE LANE STAGGERED CONTINENTAL CROSSWALK, 1' WHITE BAR			189'				
STAGGERED CONTINENTAL CROSSWALK, 2' WHITE BAR				252'			
ELONGATED STRAIGHT ARROW					1		
ELONGATED LEFT TURN ARROW					3		
ELONGATED RIGHT TURN ARROW					4		
ELONGATED LEFT TURN STRAIGHT ARROW					2		
ELONGATED RIGHT TURN STRAIGHT ARROW					1		
BIKE LANE STANDARD STENCIL						9	
BIKE LEFT TURN STRAIGHT STENCIL						4	
BIKE DETECTOR (WHITE)							4
BIKE YIELD LINE TRIANGLE							
TOTAL	1491'	1565'	315 SF	504 SF	11 EA	13 EA	4 EA
4" EQUIV. TOTAL (ROUNDED)	4625'						

SIGN DETAILS





STRIPING LEGEND:

- W-2 — 8" WHITE LINE (SEE COB STD. DWG. R-40)
- E-RA — ELONGATED RIGHT TURN ARROW (SEE COB STD. DWG. R-42B)
- E-LSA — ELONGATED LEFT TURN STRAIGHT ARROW (SEE COB STD. DWG. R-42B)
- BS — BIKE LANE STANDARD STENCIL (SEE ODOT STD. DWG. TM503)
- EX W-2 — MAINTAIN AND PROTECT EXIST. 8" WHITE LINE
- EX ND — MAINTAIN AND PROTECT EXIST. NARROW DOUBLE NO-PASS YELLOW LINES
- RX W-2 — REMOVE EXIST. 8" WHITE LINE
- RX WD-2 — REMOVE EXIST. 8" WHITE DOTTED LINE
- RX E-RA — REMOVE EXIST. ELONGATED RIGHT TURN ARROW
- RX E-LSA — REMOVE EXIST. ELONGATED LEFT TURN STRAIGHT ARROW
- RX BS — REMOVE EXIST. BIKE LANE STENCIL

SIGNING LEGEND:

- RXN M — REMOVE EXISTING SIGN (N) AND (M) SIGN SUPPORT
- EXN M — MAINTAIN AND PROTECT EXISTING SIGN (N) AND (M) SIGN SUPPORT

N = SIGN NUMBER
M = MATERIAL

MATERIALS:
S = PERFORATED SQUARE BREAKAWAY STEEL
P = ROUND STEEL PIPE

REGISTERED PROFESSIONAL ENGINEER
OREGON
SEPT. 11, 2018
CONOR R. COSTIGAN
EXPIRES: 12/31/2027

BEND BIKEWAYS NO. 1TBKE
BUTLER MARKET/BOYD ACRES INTERSECTION IMPROVEMENTS
SIGNING AND STRIPING PLANS

CITY OF BEND — DESCHUTES COUNTY, OREGON

REVISIONS:

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DRAWN BY: CRCO
SCALE: 1" = 20'
FILE: C:\SIGN_STRIPE-BNDX0000132.DWG
DATE: 6/19/26

VERIFY SCALES
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BAR EQUALS ONE INCH ON ORIGINAL DRAWING

SHEET: ST2

COB # 1TBKE

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LEGEND

CONTROLLERS

- ATC — INSTALL MODEL 2070 ATC CONTROLLER IN MODEL 332S CABINET.
- SDLC — INSTALL EXISTING RADAR CABINET INTERFACE DEVICE WITH SDLC CABLE.

CABINETS

- RX / TC — REMOVE EXISTING TERMINAL CABINET.
- RX / C — REMOVE EXISTING CONTROLLER CABINET. REMOVE AND SALVAGE ATC CONTROLLER, WAVETRONIX CABINET INTERFACE DEVICE, AND COMMUNICATIONS EQUIPMENT AND RETURN TO ODOT.
- RX / SC — REMOVE EXISTING SERVICE CABINET.
- RX / MS — REMOVE EXISTING METER BASE.
- RX / RPS — REMOVE EXISTING REMOTE POST SERVICE.
- RTC — INSTALL RECESSED TERMINAL CABINET.
- BMCL — INSTALL BASE MOUNTED SERVICE CABINET, 120/240 VOLT METERED FOR SIGNAL AND ILLUMINATION SYSTEM.
- 332S — FURNISH AND INSTALL 332S CABINET.
- RR / CID — REMOVE AND REINSTALL EXISTING RADAR CONTROLLER INTERFACE DEVICE.
- RI / CID — REINSTALL EXISTING RADAR CONTROLLER INTERFACE DEVICE.

POLES

- RX / LA — REMOVE EXISTING LUMINAIRE ARM.
- EX / PS — RETAIN AND PROTECT EXISTING POWER POLE (POWER SOURCE).
- RX / PP — REMOVE EXISTING PEDESTRIAN PEDESTAL.
- RX / MP — REMOVE EXISTING TRAFFIC SIGNAL MAST ARM POLE.
- RX / MA — REMOVE EXISTING TRAFFIC SIGNAL MAST ARM.
- PP / N — INSTALL PEDESTAL WITH FRANGIBLE BASE ON NUMBER (N=NUMBER) FOUNDATION. (SEE TM457 FOR DETAILS).
- SM / T — INSTALL (T=TYPE) STANDARD TRAFFIC SIGNAL MAST ARM POLE.
- MA / L — INSTALL (L=LENGTH) FOOT TRAFFIC SIGNAL MAST ARM.
- LA / N — INSTALL (N=LENGTH) FOOT LUMINAIRE ARM.

SIGNALS

- RX / P/B — REMOVE EXISTING PEDESTRIAN SIGNAL, PUSHBUTTON AND INSTRUCTION SIGN.
- RX / V — REMOVE EXISTING VEHICLE SIGNAL.
- V / Ph — INSTALL PHASE (Ph=PHASE) VEHICLE SIGNAL WITH 2" FLUORESCENT YELLOW RETROREFLECTIVE SHEETING ON BACKBOARD.
- P/A / Ph — INSTALL PHASE (Ph=PHASE) PEDESTRIAN SIGNAL WITH CLAMSHELL MOUNT AND TOUCHLESS ACCESSIBLE PEDESTRIAN PUSHBUTTON WITH MOUNT ("PUSH OR WAVE AT BUTTON FOR" SIGN R10-3). SEE ODOT GREENSHEETS FOR PART NO. GUARDIAN WAVE OR POLARA IDS.

DETECTION

- RX / CAM — REMOVE EXISTING VIDEO VEHICLE DETECTOR CAMERA.
- RR / RAD — REMOVE AND RELOCATE EXISTING RADAR DETECTOR UNIT.
- RI / RAD — REINSTALL EXISTING RADAR DETECTOR UNIT.
- LB / Ph — INSTALL PHASE (Ph=PHASE) 4' PARALLELOGRAM BICYCLE DETECTOR LOOP (SEE DETAIL ON SHEET TS5)
- N / LW — INSTALL (N=NUMBER) PAIR OF LOOP WIRES.
- LF / X-PH — INSTALL (X=NUMBER OF CABLES) PHASE (PH=PHASE) LOOP FEEDER CABLES.

LUMINAIRES

- RX / LUM — REMOVE EXISTING LUMINAIRE.
- RX / PE — REMOVE EXISTING PHOTO CONTROL ELECTRONIC RELAY.
- LA / L — INSTALL (L=LENGTH) FOOT LUMINAIRE ARM.
- LED — INSTALL 75 WATT LIGHT EMITTING DIODE LUMINAIRE, (SEE SPECIAL PROVISIONS AND POLE ENTRANCE CHART). BOND LUMINAIRE TO POLE GROUNDING TERMINAL.
- PE / 1 — INSTALL PHOTO ELECTRONIC CONTROL REPLAY ON POLE. SEE STD. DWG. TM450.

SIGNS

- RX / AL — REMOVE EXISTING ALUMINUM SIGN AND MOUNT.
- RX / SNS — REMOVE EXISTING STREET NAME SIGN.
- AL / 3 — INSTALL ALUMINUM (30"x36") "NO TURN ON RED" SIGN (R10-11A) ASTM TYPE IX SHEETING.
- AL / 4L — INSTALL ALUMINUM (30"x36") "STRAIGHT AND LEFT TURN ARROW" SIGN (R3-6L) ASTM TYPE IX SHEETING.
- AL / 4T — INSTALL ALUMINUM (30"x36") "THROUGH, LEFT, AND RIGHT ARROW" SIGN (OR3-5TT) ASTM TYPE IX SHEETING.
- AL / 5R — INSTALL ALUMINUM (30"x36") "RIGHT TURN ONLY" SIGN (R3-5R) ASTM TYPE IX SHEETING.
- AL / 12 — INSTALL ALUMINUM (36"x42") "TURNING VEHICLES (RIGHT) STOP FOR BIKES AND PEDS" SIGN (OR10-15A) ASTM TYPE IX SHEETING.
- AL / 21 — INSTALL ALUMINUM (12"x18") "TO REQUEST GREEN WAIT ON SYMBOL" (R10-22) ASTM TYPE IX SHEETING.
- SNS / N — INSTALL STREET NAME SIGN (N=NUMBER). SEE SIGN DETAILS ON THIS SHEET.
- PR / 12R — INSTALL (36"x42") BLANK OUT "TURNING VEHICLES (RIGHT) STOP FOR BIKES AND PEDS" PART-TIME WARNING SIGN (OR10-15A).

WIRES AND CABLES

- RX / W — REMOVE EXISTING WIRING.
- X-N / G — INSTALL (X=NUMBER OF CABLES) CONTROL CABLE(S) WITH (N=NUMBER) (G=AWG WIRE SIZE) AWG CONDUCTORS.
- TDF / Ph — INSTALL 3-CONDUCTOR CABLE FOR PHASE (Ph=PHASE) THERMAL DETECTION CAMERA. SEE ODOT GREEN SHEETS.

WIRES AND CABLES (CONT.)

- N / G — INSTALL (N=NUMBER) NO. (G=AWG WIRE SIZE) THWN WIRES.
- N | G — INSTALL (N=NUMBER) NO. (G=AWG WIRE SIZE) XHHW WIRES.
- N-C — INSTALL (N=NUMBER) NO. 8 AWG THWN WIRE(S) FOR SIGNAL SYSTEM COMMON.
- PL — INSTALL POLY PULL LINE.

JUNCTION BOXES

- AX / JB — ABANDON EXISTING JUNCTION BOX.
- RX / JB — REMOVE EXISTING JUNCTION BOX.
- JB / 3 — INSTALL 30"x17"x12" (MIN. DIMENSION) PRECAST CONCRETE OR HYBRID JUNCTION BOX.
- JB / 3/TA — INSTALL TANDEM 30"x17"x12" (MIN. DIMENSION) PRECAST CONCRETE JUNCTION BOXES WITH CONCRETE APRON.
- SP / S — INSTALL 6" MAX. SAND POCKET BLOCK-OUT WITH (S=SIZE) INCH CONDUIT TO JUNCTION BOX.

CONDUITS

- HDD — INSTALL CONDUIT BY HORIZONTAL DIRECTIONAL DRILLING, OPEN TRENCH NOT ALLOWED.
- AX / C — ABANDON EXISTING CONDUIT.
- S — INSTALL (S=SIZE) INCH CONDUIT.
- W — INSTALL CONDUIT AND WIRE AS REQUIRED BY POWER COMPANY.

FIRE PREEMPTION

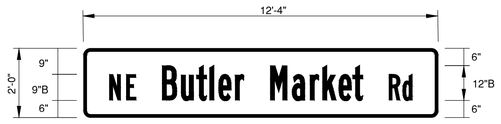
- FF / Ch — INSTALL CHANNEL (Ch=CHANNEL) FIRE PREEMPTION DETECTOR FEEDER CABLE.
- FN / Ch — INSTALL CHANNEL (Ch=CHANNEL), (N=NUMBER) BARREL FIRE PREEMPTION DETECTOR UNIT.
- RX / FD — REMOVE EXISTING FIRE PREEMPTION DETECTOR UNIT.

EQUIPMENT

- RR / RD — REMOVE AND RELOCATE EXISTING RADIO.
- RR / COM — REMOVE AND RELOCATE EXISTING COMMUNICATIONS EQUIPMENT. COORDINATE WITH ODOT ON RELOCATION IN NEW CONTROLLER CABINET.
- RI / RD — REINSTALL EXISTING RADIO.
- RI / COM — REINSTALL EXISTING COMMUNICATIONS EQUIPMENT IN NEW CONTROLLER CABINET. COORDINATE WITH ODOT FOR RELOCATION IN NEW CONTROLLER CABINET.
- NET — INSTALL NETWORK CABLE. SEE SECTION 02920 FOR PRODUCT INFORMATION.
- DIN / F — INSTALL INTERCONNECT DIN BRACKET (COMMUNICATIONS BRACKET). SEE ODOT GREEN SHEETS FOR PRODUCT INFORMATION.

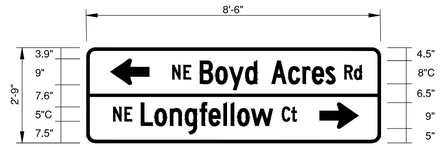
HEADS + SIGNAL HEAD MOUNTING OPTIONS

2 = 12"R, 12"Y, 12"G
3L = 12"RLTA, 12"YLTA, 12"GLTA
4 = 12"R, 12"Y, 12"G, 12"GRTA
AB = ADJUSTABLE SIGNAL BRACKET ASSEMBLY W/RAIN CAP(S)
B = ADJUSTABLE SIGNAL BRACKET ASSEMBLY W/ RAIN CAP(S) (INSTALL 1" GALVANIZED CHASE NIPPLE)



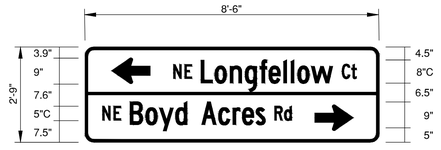
SIGN BACKGROUND: GREEN, TYPE IX RETROREFLECTIVE SHEETING
SIGN LEGEND: WHITE, TYPE III/IV REFLECTIVE SHEETING

SIGN NO. 1



SIGN BACKGROUND: GREEN, TYPE IX RETROREFLECTIVE SHEETING
SIGN LEGEND: WHITE, TYPE III/IV REFLECTIVE SHEETING

SIGN NO. 2



SIGN BACKGROUND: GREEN, TYPE IX RETROREFLECTIVE SHEETING
SIGN LEGEND: WHITE, TYPE III/IV REFLECTIVE SHEETING

SIGN NO. 3

GENERAL NOTES

1. ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE OREGON STANDARD DRAWINGS, 2024 CITY OF BEND DESIGN STANDARDS AND CONSTRUCTION SPECIFICATIONS, AND THE SPECIAL PROVISIONS FOR THIS CONTRACT.
2. PLACE CONDUIT IN THE SAME TRENCH WITH OTHER CONDUITS WHEN POSSIBLE.
3. ALL CONDUIT RUNS SHALL BE PLACED WITHIN RIGHT-OF-WAY.
4. INSTALL POLY PULL TAPE (1800 LBF MIN. STRENGTH, NON CONDUCTIVE) IN ALL CONDUITS.
5. TO BE ACCOMPANIED BY CITY OF BEND STD. DWG. R-8 AND OREGON STD. DWGS. TM450, TM457, TM460, TM462, TM467, TM482, TM485, TM650, TM651, TM652, TM653, TM654, TM679, TM700, TM701, AND TM702.

REGISTERED PROFESSIONAL ENGINEER
74,348
OREGON
JUNE 12, 2015
STEVEN J. BOICE
EXPIRES: DEC. 31, 2027

BEND BIKEWAYS NO. 1TBKE
BUTLER MARKET/BOYD ACRES
INTERSECTION IMPROVEMENTS
TRAFFIC SIGNAL LEGEND
CITY OF BEND
DESCHUTES COUNTY, OREGON

REVISIONS:
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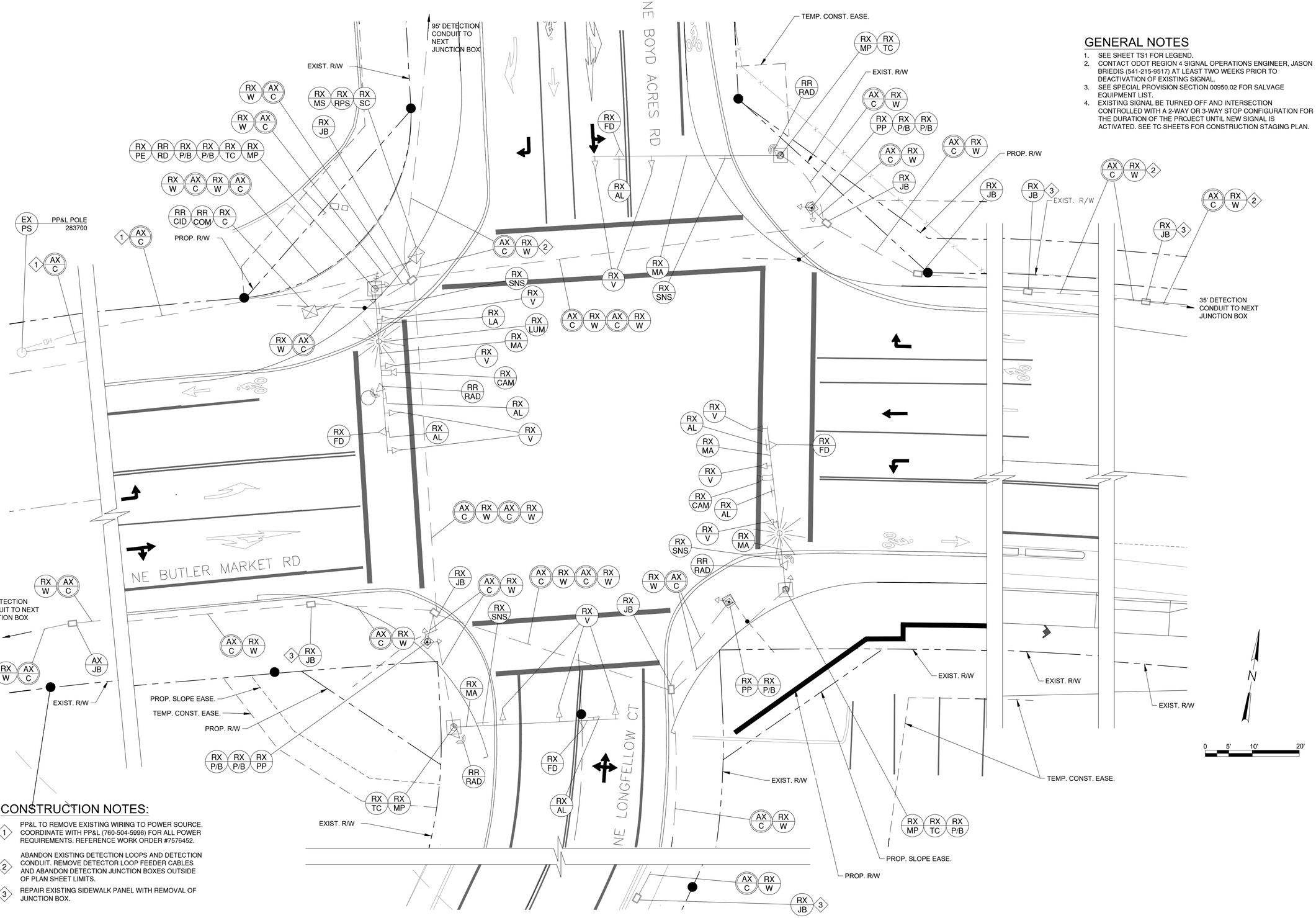
1050 SW 6th Avenue, Suite 600
Portland, Oregon 97204
www.dksassociates.com
DKS

DESIGNED BY: KCK
DRAWN BY: PCB
SCALE: AS SHOWN
FILE: TS01.dwg
DATE: 05/01/2026

VERIFY SCALES
0 — 1"
BAR EQUALS ONE INCH ON ORIGINAL DRAWING

SHEET:
TS1

COB # 1TBKE



GENERAL NOTES

1. SEE SHEET TS1 FOR LEGEND.
2. CONTACT ODOT REGION 4 SIGNAL OPERATIONS ENGINEER, JASON BRIEDIS (541-215-9517) AT LEAST TWO WEEKS PRIOR TO DEACTIVATION OF EXISTING SIGNAL.
3. SEE SPECIAL PROVISION SECTION 00950.02 FOR SALVAGE EQUIPMENT LIST.
4. EXISTING SIGNAL BE TURNED OFF AND INTERSECTION CONTROLLED WITH A 2-WAY OR 3-WAY STOP CONFIGURATION FOR THE DURATION OF THE PROJECT UNTIL NEW SIGNAL IS ACTIVATED. SEE TC SHEETS FOR CONSTRUCTION STAGING PLAN.

CONSTRUCTION NOTES:

1. PP&L TO REMOVE EXISTING WIRING TO POWER SOURCE. COORDINATE WITH PP&L (760-504-5996) FOR ALL POWER REQUIREMENTS. REFERENCE WORK ORDER #7576452.
2. ABANDON EXISTING DETECTION LOOPS AND DETECTION CONDUIT. REMOVE DETECTOR LOOP FEEDER CABLES AND ABANDON DETECTION JUNCTION BOXES OUTSIDE OF PLAN SHEET LIMITS.
3. REPAIR EXISTING SIDEWALK PANEL WITH REMOVAL OF JUNCTION BOX.

REGISTERED PROFESSIONAL ENGINEER
74,348
OREGON
JUNE 12, 2015
STEVEN J. BOICE
EXPIRES: DEC. 31, 2027

BEND BIKEWAYS NO. 1TBKE
BUTLER MARKET/BOYD ACRES INTERSECTION IMPROVEMENTS
SIGNAL REMOVAL PLAN

CITY OF BEND
DESCHUTES COUNTY, OREGON

REVISIONS:
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2.
3.

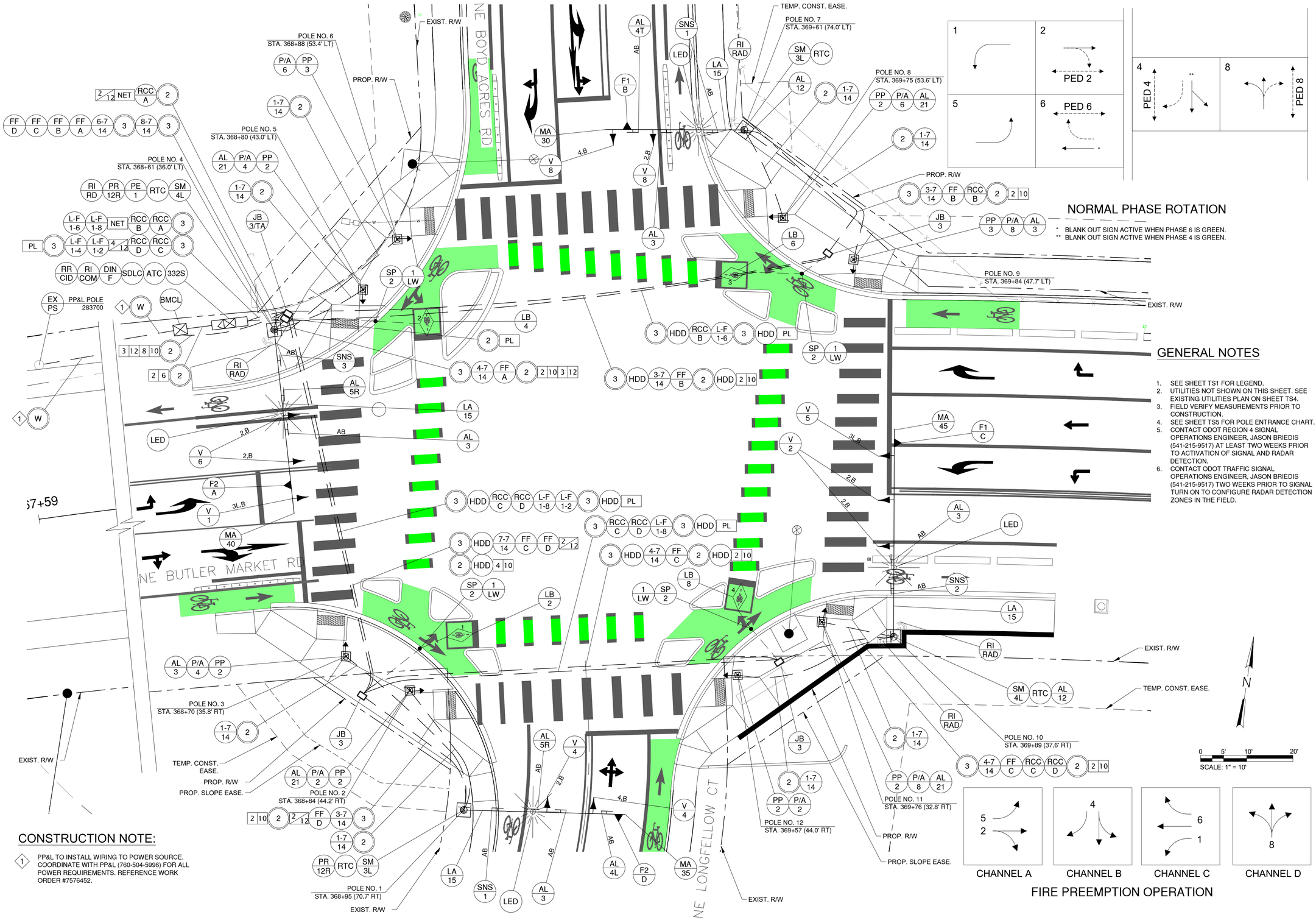
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DESIGNED BY: KCK
DRAWN BY: PCB
SCALE: AS SHOWN
FILE: TS02.dwg
DATE: 05/01/2026

VERIFY SCALES
0 1"
BAR EQUALS ONE INCH ON ORIGINAL DRAWING

SHEET:
TS2

COB # 1TBKE



NORMAL PHASE ROTATION

* BLANK OUT SIGN ACTIVE WHEN PHASE 6 IS GREEN.
** BLANK OUT SIGN ACTIVE WHEN PHASE 4 IS GREEN.

GENERAL NOTES

1. SEE SHEET TS1 FOR LEGEND.
2. UTILITIES NOT SHOWN ON THIS SHEET. SEE EXISTING UTILITIES PLAN ON SHEET TS4.
3. FIELD VERIFY MEASUREMENTS PRIOR TO CONSTRUCTION.
4. SEE SHEET TS5 FOR POLE ENTRANCE CHART.
5. CONTACT ODOT REGION 4 SIGNAL OPERATIONS ENGINEER, JASON BRIEDIS (541-215-9517) AT LEAST TWO WEEKS PRIOR TO ACTIVATION OF SIGNAL AND RADAR DETECTION.
6. CONTACT ODOT TRAFFIC SIGNAL OPERATIONS ENGINEER, JASON BRIEDIS (541-215-9517) TWO WEEKS PRIOR TO SIGNAL TURN ON TO CONFIGURE RADAR DETECTION ZONES IN THE FIELD.

CONSTRUCTION NOTE:

1. PP&L TO INSTALL WIRING TO POWER SOURCE. COORDINATE WITH PP&L (760-504-5996) FOR ALL POWER REQUIREMENTS. REFERENCE WORK ORDER #7576452.

FIRE PREEMPTION OPERATION

CHANNEL A: 5, 2
CHANNEL B: 4
CHANNEL C: 6, 1
CHANNEL D: 8

REGISTERED PROFESSIONAL ENGINEER
OREGON
JUNE 12, 2015
STEVEN J. BOICE
EXPIRES: DEC. 31, 2027

BEND BIKEWAYS NO. 1TBKE
BUTLER MARKET/BOYD ACRES INTERSECTION IMPROVEMENTS
SIGNAL PLAN

CITY OF BEND — DESCHUTES COUNTY, OREGON

REVISIONS: 1. 2. 3.

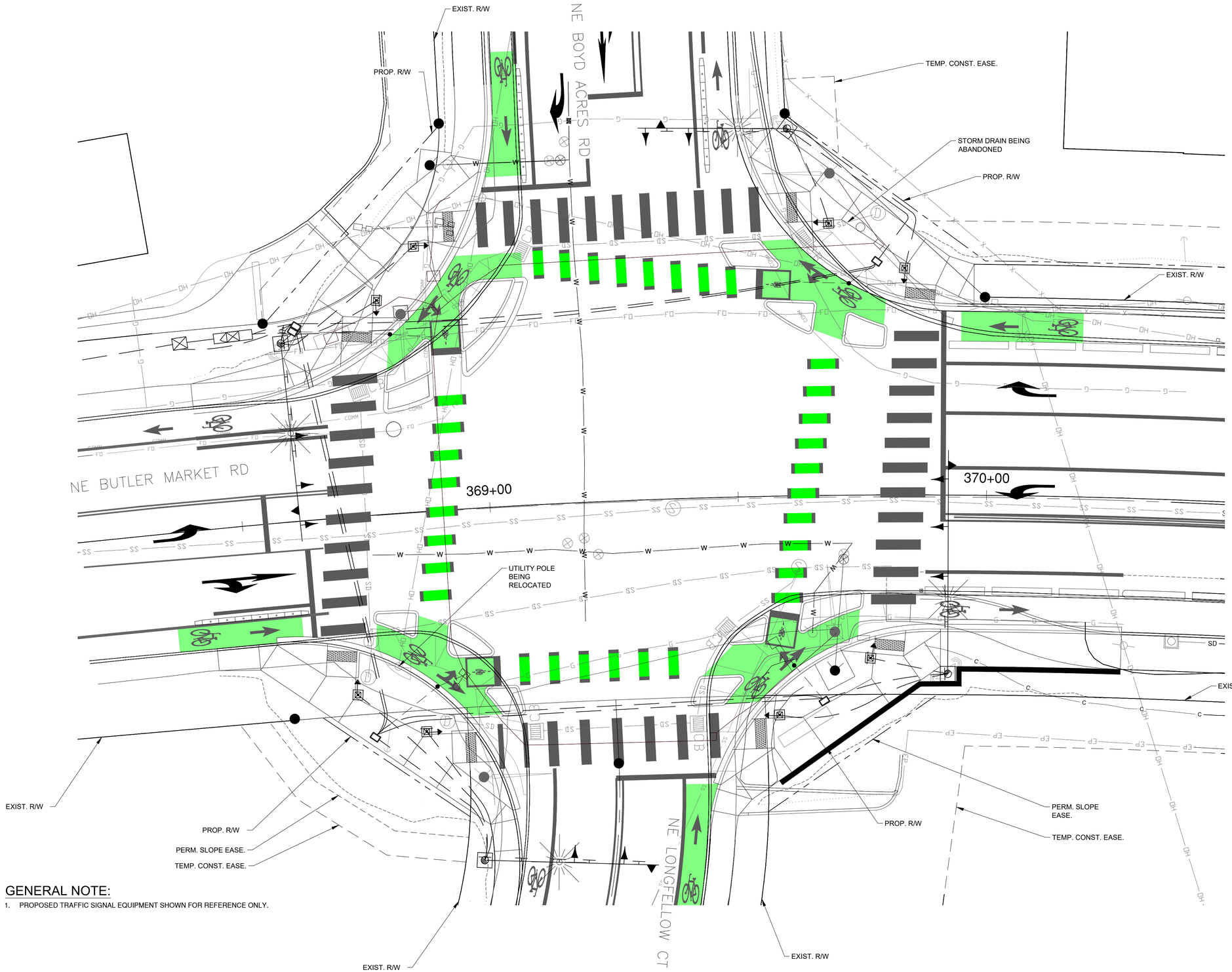
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DESIGNED BY: KCK
DRAWN BY: PCB
SCALE: AS SHOWN
FILE: TSC5.dwg
DATE: 05/01/2026

VERIFY SCALES
0 1"
BAR EQUALS ONE INCH ON ORIGINAL DRAWING

SHEET: TS3

COB # 1TBKE



GENERAL NOTE:

1. PROPOSED TRAFFIC SIGNAL EQUIPMENT SHOWN FOR REFERENCE ONLY.

REGISTERED PROFESSIONAL ENGINEER
74,348
OREGON
JUNE 12, 2015
STEVEN J. BOICE
EXPIRES: DEC. 31, 2027

BEND BIKEWAYS NO. 1TBKE
BUTLER MARKET/BOYD ACRES INTERSECTION IMPROVEMENTS
EXISTING UTILITIES PLAN

DESCHUTES COUNTY, OREGON

CITY OF BEND

REVISIONS:
1.
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3.

1050 SW 6th Avenue, Suite 600
Portland, Oregon 97204
www.dksassociates.com
DKS

DESIGNED BY: KCK
DRAWN BY: PCB
SCALE: AS SHOWN
FILE: TS04.dwg
DATE: 05/01/2026

VERIFY SCALES
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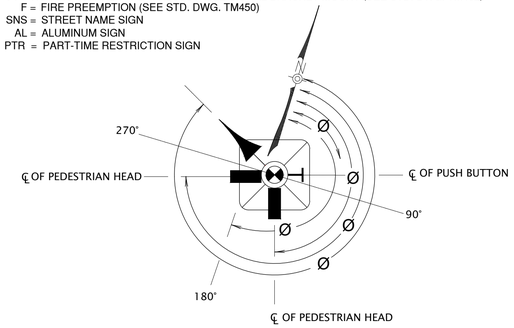
SHEET:
TS4

COB # 1TBKE

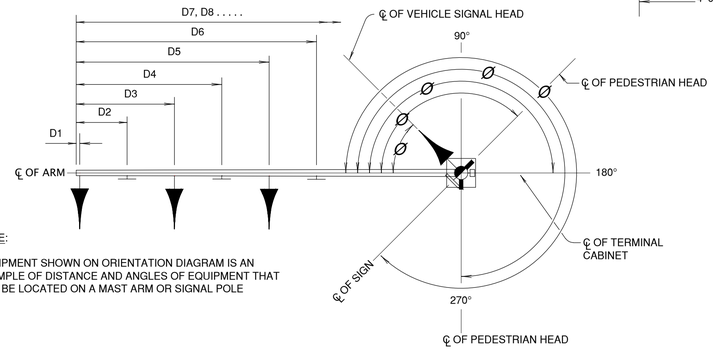
POLE ENTRANCE CHART

POLE NO.	DWG. NO.	TYPE (SEE TM650 THRU TM653)	EQUIPMENT ON POLE: PED. SIGNAL DEG.	PED. PUSHBUTTON DEG.	TERM. CABINET DEG.	PTR DEG.	PHOTO CELL DEG.	RADIO DEG.	RADAR DEG.	SIGN DEG.	EQUIPMENT ON MAST ARM (LENGTH IN FEET AND EQUIPMENT TYPE): ARM LENGTH	D 1	D 2	D 3	D 4	D 5	D 6	D 7	D 8	FOUNDATION INFORMATION (SEE STD. DRG. TM653): FOUNDATION NUMBER	REQUIRED FOUNDATION DEPTH	LUMINAIRES: ARM LENGTH	ARM DEG.	MOUNTING HEIGHT	FIXTURE TYPE	COLOR TEMP.	WATTAGE
1	TS3	SM3L			180	270					35	F 1.5	AL 4.0	V4 7.0	AL 14.0	V2 17.0	AL 20.0	SNS 27.5		4	7 FT MIN*	15	0	35	III	3000K	96
2	TS3	PP-2	170	170																2	SEE TM457						
3	TS3	PP-3	265	265						295										3	SEE TM457						
4	TS3	SM4L			180	270	180	165	35		40	V3L 3.0	F 6.0	V2 11.0	AL 18.0	V2 21.0	AL 25.5	SNS 33.5		5	7 FT MIN*	15	0	35	III	3000K	96
5	TS3	PP-2	275	275																2	SEE TM457						
6	TS3	PP-2	350	350																2	SEE TM457						
7	TS3	SM3L			225				35		30	V4 1.5	F 4.5	AL 6.0	V2 10.5	AL 13.5	SNS 23.0			4	7 FT MIN*	15	0	35	III	3000K	96
8	TS3	PP-2	350	350																2	SEE TM457						
9	TS3	PP-3	95	95						95										3	SEE TM457						
10	TS3	SM4L			270				35/245		45	F 3.0	V3L 6.0	V2 15.5	V2 25.5	AL 28.5	SNS 34.5			5	7 FT MIN*	15	0	35	III	3000K	96
11	TS3	PP-2	95	895																2	SEE TM457						
12	TS3	PP-2	170	170																2	SEE TM457						

V2 = TRAFFIC SIGNAL TYPE 2, ADJUSTABLE SIGNAL BRACKET MOUNT (SEE STD. DWG. TM462)
V3L = TRAFFIC SIGNAL TYPE 3L, ADJUSTABLE SIGNAL BRACKET MOUNT (SEE STD. DWG. TM462)
V4 = TRAFFIC SIGNAL TYPE 4, ADJUSTABLE SIGNAL BRACKET MOUNT (SEE STD. DWG. TM462)
F = FIRE PREEMPTION (SEE STD. DWG. TM450)
SNS = STREET NAME SIGN
AL = ALUMINUM SIGN
PTR = PART-TIME RESTRICTION SIGN



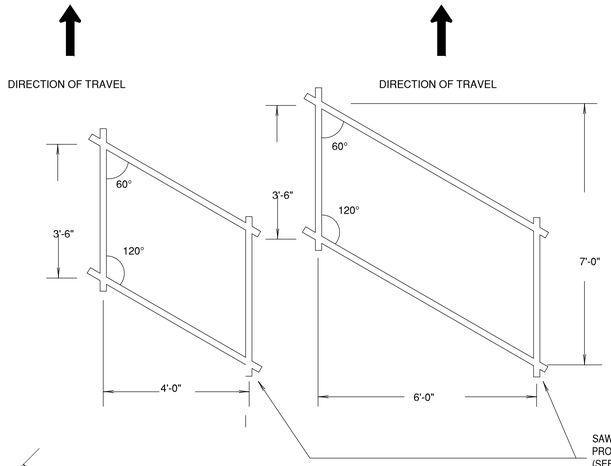
PEDESTRIAN PEDESTAL/ VEHICLE PEDESTAL/ LIGHT POLE



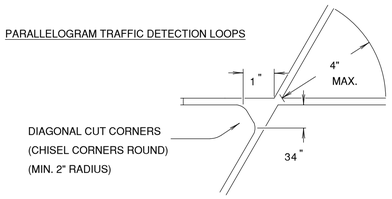
NOTE:

EQUIPMENT SHOWN ON ORIENTATION DIAGRAM IS AN EXAMPLE OF DISTANCE AND ANGLES OF EQUIPMENT THAT MAY BE LOCATED ON A MAST ARM OR SIGNAL POLE

MAST ARM POLE ORIENTATION DIAGRAM



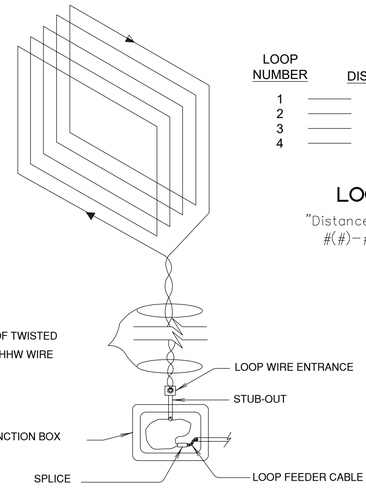
PARALLELOGRAM TRAFFIC DETECTION LOOPS



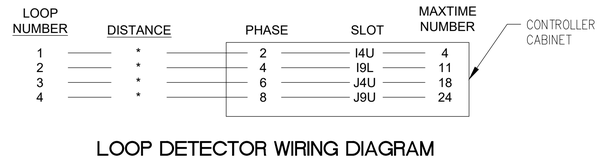
MAKE ADDITIONAL SAWCUT TO PROVIDE WIRE RELIEF AT ACUTE CORNERS

WIRE RELIEF METHOD

* FOOTING TO BE EMBEDDED 5FT MINIMUM INTO BEDROCK (SEE TM653)



BICYCLE LOOP
LOOP DETECTOR WINDING PATTERN



LOOP DETECTOR WIRING DIAGRAM

"Distance" is from Stop Line to center of loop in feet
#(#)-#=Phase, install phase under (#) phase slot
*SEE SIGNAL PLAN FOR LOCATION.

(ARROWS INDICATE DIRECTION OF LOOP WINDING)

LOOPS SHALL BE OF THE PARALLELOGRAM TYPE WITH 5 TURNS OF DUCTED NO. 14 XHHW STRANDED WIRE CENTERED IN THE TRAFFIC LANE OR AS SHOWN ON PLANS. LOOP WIRE SHALL BE TWISTED 4 TO 6 TURNS PER FOOT BETWEEN LOOP AND JUNCTION BOX. ALL LOOPS SHALL BE INDIVIDUALLY WIRED AS SHOWN.

REGISTERED PROFESSIONAL ENGINEER 74,348 OREGON JUNE 12, 2015 STEVEN J. BOICE EXPIRES: DEC. 31, 2027

BEND BIKEWAYS NO. 1TBKE
BUTLER MARKET/BOYD ACRES
INTERSECTION IMPROVEMENTS
TRAFFIC SIGNAL DETAILS
DESCHUTES COUNTY, OREGON
CITY OF BEND

REVISIONS: 1. 2. 3.

1050 SW 6th Avenue, Suite 600
Portland, Oregon 97204
www.dksassociates.com
DKS

DESIGNED BY: KCK
DRAWN BY: PCB
SCALE: AS SHOWN
FILE: TS05.dwg
DATE: 05/01/2026

VERIFY SCALES
0 1"
BAR EQUALS ONE INCH ON ORIGINAL DRAWING

SHEET: TS5

COB # 1TBKE