before you begin excavation.
Call at least two full working days
In Maricopa County: (602) 263-1100
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
Arizona Blue Stake, Inc.

1 inch =         ft.
before you begin excavation.
Call at least two full working days
In Maricopa County: (602) 263-1100
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
Arizona Blue Stake, Inc.
before you begin excavation. Call at least two full working days in Maricopa County: (602) 263-1100. Dial 8-1-1 or 1-800-STAKE-IT (782-5348) Arizona Blue Stake, Inc.
Notes:
1. All elevations are pavement grade unless otherwise noted.
2. Base elevation=3100 ft
3. See Paving Sheets for grade and superelevation diagram beyond the intersection.
4. Staking spot elevations are at +00, +25, +50, +75, unless otherwise noted.
5. See Sidestreet and Driveway P&P sheets for curb return information.
1. All elevations are pavement grade unless otherwise noted.
2. Base elevation = 3100 ft
3. See Paving Sheets for grade and superelevation diagram beyond the intersection.
4. Staking spot elevations are at +00, +25, +50, +75, unless otherwise noted.
Notes:

1. All elevation are pavement grade unless otherwise noted.
2. Base elevation = 3000 ft
3. See Paving Sheets for grade and superelevation diagram beyond the intersection.
4. Staking spot elevations are at +00, +25, +50, +75, unless otherwise noted.
5. See Sidestreet and Driveway P&M sheets for curb return information.

Profile Control Lt

PC 162+11.00, 15.00' Lt
Elev = 87.10

PT 162+62.00, 10.00' Lt
Elev = 89.70

PT 163+07.54, 10.00' Lt
Elev = 87.10

PC 164+62.00, 5.00' Lt
Elev = 87.10

Elev = 87.80

PC 162+11.00, 10.00' Lt
Elev = 87.80

PT 162+62.00, 10.00' Lt
Elev = 89.70

PT 163+07.54, 10.00' Lt
Elev = 87.10

PC 164+62.00, 5.00' Lt
Elev = 87.10

2. Base elevation = 3000 ft

3. See Paving Sheets for grade and superelevation diagram beyond the intersection.

4. Staking spot elevations are at +00, +25, +50, +75, unless otherwise noted.

5. See Sidestreet and Driveway P&M sheets for curb return information.
Notes:
1. All elevations are pavement grade unless otherwise noted.
2. Date elevation = 3000 ft
3. See Fencing Sheets for grade and superelevation diagram beyond the intersection.
4. Skating spot elevations are at +.00, +.25, +.50, +.75, unless otherwise noted.
Notes:
1. All elevations are pavement grade unless otherwise noted.
2. Base elevation=3000 ft
3. See Paving Sheets for grade and super-elevation diagram beyond the intersection.
4. Staking spot elevations are at +00, +25, +50, +75, unless otherwise noted.
5. See Sidestreet and Driveway P&P sheets for curb return information.
Notes:
1. All elevations are pavement grade unless otherwise noted.
2. Base elevation = 3000 ft
3. See Paving Sheets for grade and superelevation diagram beyond the intersection.
4. Staking spot elevations are at +00, +25, +50, +75, unless otherwise noted.
5. See Sidestreet and Driveway P&P sheets for curb return information.
Notes:
1. All elevations are pavement grade unless otherwise noted.
2. Base elevation=3000 ft
3. See Paving Sheets for grade and superelevation diagram beyond the intersection.
4. Staking spot elevations are at +00, +25, +50, +75, unless otherwise noted.
Before you begin excavation, call at least two full working days.

In Maricopa County: (602) 263-1100
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Arizona Blue Stake, Inc.

0.50%
Outlet Velocity = 6.7 fps

New Collector Channel

3:1 Typical Channel Slopes

True to match existing channel at outlet.

3110 3120 3130
17+00 18+00 19+00 20+00 21+00

New 5-30"x151' RCP

New 8" Steel Gas (SWG)

New TCE

New Handrail (Typ.)

Outlet headwall shall be based on ADOT Std. Dwg SD-6.30 (30" pipe, 4") plan.

Inlet headwall shall be based on ADOT Std. Dwg SD-0.30 (10") plan.

Handrail shall be installed on headwalls as shown on the plans & per ADOT Std. Dwg SD-5.

Rock Mulch for permanent erosion control shall be installed per SWPPP Sheet Dtl 105, unless shown otherwise.

1. RCP shall be constructed in accordance with ADOT Std. Dwg C-12.10.
2. Outlet headwall shall be based on ADOT Std. Dwg SD-6.30 (10") plan, modified height D=4'-5", length as shown in plan view.
3. Inlet Headwall shall be based on ADOT Std. Dwg SD-0.30 (30") plan.
4. Handrail shall be installed on headwalls as shown on the plans & per ADOT Std. Dwg SD-6.30 (30" pipe).
5. Rock Fill for permanent erosion control shall be installed per SWPPP Sheet Dtl 105, unless shown otherwise.
Notes:
1. HCB - shall be constructed in accordance with ADOT Std. Dwgs SD-6.03 and SD-6.02.
2. Inlet wingwalls shall be based on ADOT Std. Dwgs SD-6.30 (Type B, Level wings, 1:16: both sides)
3. Outlet wingwalls shall be based on ADOT Std. Dwgs SD-6.39 (35°skew, 4x1 slope)
4. Handrail shall be installed on handrails and wingwalls as shown on the plans & per PAG Std DR 105.
5. Rock Mulch for permanent erosion control shall be installed per SWPPP Sheet Detail ES2, unless shown otherwise.
6. If precast box culverts are used, contractor to adjust ADOT wingwall details and dimensions specified above to fit.
before you begin excavation.

Call at least two full working days

In Maricopa County: (602) 263-1100
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)

Arizona Blue Stake, Inc.

1 inch = 4 ft.

Inlet headwall shall be based on ADOT Std Dwg SD-6.01 Type B, Level wings, South wing L-195', North wing L-182'.

Outlet wingwalls shall be based on ADOT Std Dwg SD-6.08 (45° skew, 4:1 slope, modified G=19'-4")

Handrail shall be installed on handrails and wingwalls as shown on the plans & per PAG Std DR 105.

Rock Mulch for permanent erosion control shall be installed per SWPPP Sheet Detail ES2, unless shown otherwise.

If precast box culverts are used, contractor to adjust ADOT wingwall details and dimensions specified above to fit.

Notes:
1. ROSE shall be constructed in accordance with ADOT Std Dws SD-6.01 and SD-6.03.
2. Inlet headwall shall be based on ADOT Std Dwg SD-6.30 Type B, Level wings, South wing L-195', North wing L-182'.
3. Outlet wingwalls shall be based on ADOT Std Dwg SD-6.08 (45° skew, 4:1 slope, modified G=19'-4")
4. Handrail shall be installed on handrails and wingwalls as shown on the plans & per PAG Std DR 105.
5. Rock Mulch for permanent erosion control shall be installed per SWPPP Sheet Detail ES2, unless shown otherwise.
6. If precast box culverts are used, contractor to adjust ADOT wingwall details and dimensions specified above to fit.
Notes:
1. RCP shall be constructed in accordance with ADOT Std Dwg C-1310.
2. Inlet headwall shall be based on Special Criteria, Sage Contract Co.
3. Outlet headwall shall be based on ADOT Std Dwg 50-6.30 (60° plan, 30° slope, 4:1 slope).
4. Headwall shall be installed on headwalls as shown on the plans & per PS wards Off 105.
5. Rock Mulch for permanent erosion control shall be installed per SWPPP. Sheet Detail E5G, unless shown otherwise.
before you begin excavation. Call at least two full working days in advance.

In Maricopa County: (602) 263-1100
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Arizona Blue Stake, Inc.

1 inch = 4 feet
before you begin excavation. Call at least two full working days In Maricopa County: (602) 263-1100 Dial 8-1-1 or 1-800-STAKE-IT (782-5348) Arizona Blue Stake, Inc.

1 inch = 10 ft.
before you begin excavation. Call at least two full working days

In Maricopa County: (602) 263-1100
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
Arizona Blue Stake, Inc.

1 inch = 1'
Notes:
1. RCP shall be constructed in accordance with ADOT Std Dwg C-15.30.
2. Inlet headwall shall be based on ADOT Std Dwg SD-6.30 (42" pipe, modified length as shown in plan view)
3. Outlet headwall shall be based on ADOT Std Dwg SD-6.30 (42" pipe).
4. Handrail shall be installed on handrails as shown on the plans & per PAG Std Dwg SN 105.
5. Rock Walls for permanent erosion control shall be installed per SHEPP Standard Detail E28, unless shown otherwise.

### Horizontal Alignment

- Start @ 18+00
- End @ 22+00
- Length: 60' (42' pipe)
- Topsides: 6' Houghton Rd

### Vertical Alignment

- Top Elev @ 3080.00
- Bottom Elev @ 3079.00

### Hydraulics

- Outlet Velocity = 10.0 fps
- Q HW = 260 CFS
- Outlet Headwall @ 3088.00
- Inlet Headwall @ 3089.00
- Slope = 0.81%

### Construction

- New 5-42"x123' RCP
- New 8" Steel Gas (SWG)
- New 24" Water Line (TW)
- New 5-42" Steel Gas (SGW)
- Dumped Riprap
- Splash Pad
- Exst Gas Easement
- Exst TEP Easement
- Exst 4" Steel Gas (SWG)

### Sheet Details

- See Detail D3
- See Detail E2
- See Detail C13.10
- See Detail C13.30
- See Detail E28
- See Detail D105

### Notes

- Skew 10° Rt
- Curved Channel Inlet
- See Detail E2
- Rock Mulch for permanent erosion control
- Handrail shall be installed on handrails as shown on the plans & per PAG Std Dtl 105.
Before you begin excavation, call at least two full working days in Maricopa County: (602) 263-1100. Dial 8-1-1 or 1-800-STAKE-IT (782-5348) Arizona Blue Stake, Inc.
before you begin excavation.

Call at least two full working days

In Maricopa County: (602) 263-1100

Dial 8-1-1 or 1-800-STAKE-IT (782-5348)

Arizona Blue Stake, Inc.

1 inch = 40 ft.

30+54.21

New 3-24" x 178' RCP

Outlet Velocity = 8.2 fps

New Handrail (Typ.)

& per PAG Std Dtl 105.

Earthen Graded Channel Inlet

Top of 'L' Headwall

Outlet headwall shall be based on

ADOT Std Dwg SD 6.30 (24" pipe

as shown on the plans & per PAG Std 105.

Rock Wall for permanent erosion

control shall be installed per SWPPP

Sheet Detail ES2, unless shown

otherwise.

Inlet headwall shall be based on

ADOT Std Dwg C-13.10.

Outlet headwall shall be based on

ADOT Std Dwg SD 6.30 (24" pipe

'L' shape, modified length as shown

in plan sheet.

Rock Wall for permanent erosion

control shall be installed per SWPPP

Sheet Detail ES2, unless shown

otherwise.
Notes:

1. Rock Wall for permanent erosion control shall be installed per SWPPP, unless shown otherwise.

2. Inlet headwalls shall be based on ADOT Std Dwg SD-6.10 (Type B, Level wings, South wing L=10', North wing L=25.5' 90° Skew)

3. Outlet wingwalls shall be based on ADOT Std Dwg SD-6.08 10° Skew, 4x1 slope)

4. Handrail shall be installed on headwalls and wingwalls as shown on the plans & per ADOT Std Di 105.

5. If precast box culverts are used, contractor to adjust ADOT wingwall details and dimensions specified above to fit.

6. If present box culverts are used, contractor to adjust ADOT wingwall details and dimensions specified above to fit.

7. Detail D1

8. Wire-tied riprap

9. New plunge basin

10. See Channel Sheets for downstream grading information

11. See Detail E1

12. Concrete cutoff wall 1'x 6'

13. Modify Top of North 'L' Wing

14. Elev=3078

15. Elev=3070.08, Outlet Velocity= 12.9 fps

16. Wire-tied riprap

17. New plunge basin

18. Concrete cutoff wall 1'x 4'

19. New 8" Steel Gas (SWG)

20. Elev=3073.87

21. Elev=3072.40

22. Elev=3073.91

23. Elev=3075.20

24. Sta 19+01.75

25. Sta 18+92.75

26. Sta 178+76.00

27. Skew 0°

28. R=75'

29. 0.32%

30. To be Removed

31. New 24" Water Line (TW)

32. New 4" Steel Gas (SWG)

33. Concrete Cutoff Wall 1'x 6'

34. Concrete Cutoff Wall 1'x 4'

35. New Handrail (Typ.)

36. Wire-Tie Retaining Headwall Channel Inlet

37. See Detail E1

38. See Detail D1

39. Concrete Cutoff Wall 1'x 6'

40. Wire-Tie Retaining Headwall Channel Inlet

41. See Detail D1

42. Concrete Cutoff Wall 1'x 6'

43. Wire-Tie Retaining Headwall Channel Inlet

44. See Detail D1

45. Concrete Cutoff Wall 1'x 6'

46. Wire-Tie Retaining Headwall Channel Inlet

47. See Detail D1

48. Concrete Cutoff Wall 1'x 6'

49. Wire-Tie Retaining Headwall Channel Inlet

50. See Detail D1

51. Concrete Cutoff Wall 1'x 6'

52. Wire-Tie Retaining Headwall Channel Inlet

53. See Detail D1

54. Concrete Cutoff Wall 1'x 6'

55. Wire-Tie Retaining Headwall Channel Inlet

56. See Detail D1
before you begin excavation. Call at least two full working days before excavation.

In Maricopa County: (602) 263-1100

Dial 8-1-1 or 1-800-STAKE-IT (782-5348)

Arizona Blue Stake, Inc.

0

1 inch = 40 ft.

0.97%

PAG Std Dtl 105

New Handrail (Typ.)

Wire-tied Riprap

See Channel Sheets for details and dimensions specified above to fit.

Notes:

1. RCC shall be constructed in accordance with ADOT Std Dwg SD-6.01 and SD-6.03.

2. Inlet headwall shall be based on ADOT Std Dwg SD-6.10 (Type B, Level wings, Both wings L=180)

3. Outlet wingwalls shall be based on ADOT Std Dwg SD-6.08 (0° skew, 4:1 slope)

4. Handrail shall be installed on headwalls and wingwalls as shown on the plans & per PAG Std DR105.

5. Rock Wrench for permanent erosion control shall be installed per SWPPP Sheet Detail ES2, unless shown otherwise.

6. If precast box culverts are used, contractor to adjust ADOT wingwall details and dimensions specified above to fit.
before you begin excavation. Call at least two full working days in advance. In Maricopa County: (602) 263-1100, Dial 8-1-1 or 1-800-STAKE-IT (782-5348). Arizona Blue Stake, Inc.
Call at least two full working days in Maricopa County: (602) 263-1100
Dial 8-1-1 or 1-800-STAKE-IT (782-5348) Arizona Blue Stake, Inc.

Notes:
1. RCBC shall be constructed in accordance with ADOT Std DWG SD-6.01 and SD-6.02.
2. Inlet headwall shall be based on ADOT Std DWG SD-6.10 (Type B, Level wings). South wing L=16', north wing L=16'.
3. Outlet wingwalls shall be based on ADOT Std DWG SD-6.08 (10' show, 4' slope).
4. Handrail shall be installed on headwalls and wingwalls as shown on the plans & per PAC Std DP 105.
5. Rock Mulch for permanent erosion control shall be installed per SWPPP Sheet Detail ES2, unless shown otherwise.
6. If precast box culverts are used, contractor to adjust ADOT wingwall details and dimensions specified above to fit.
1. Handrail shall be installed on north and westbound as shown on the plans & per PAG Std Dtl 105.

2. Inlet headwall shall be based on ADOT Std Dwg SD-6.01 and SD-6.02.

3. Outlet wingwalls shall be based on ADOT Std Dwg SD-6.08 (0° skew, 4:1 slope).

4. Handrails shall be installed on north and westbound as shown on the plans & per PAG Std Dtl 105.

5. Rock Wall for permanent erosion control shall be installed per SWPPP Sheet Detail E52, unless shown otherwise.

6. If precast box culverts are used, contractor shall be ADOT wingwall details and dimensions shown on plans.

Details:
- Handrail shall be installed on north and westbound as shown on the plans & per PAG Std Dtl 105.
- Inlet headwall shall be based on ADOT Std Dwg SD-6.01 and SD-6.02.
- Outlet wingwalls shall be based on ADOT Std Dwg SD-6.08 (0° skew, 4:1 slope).
- Handrails shall be installed on north and westbound as shown on the plans & per PAG Std Dtl 105.
- Rock Wall for permanent erosion control shall be installed per SWPPP Sheet Detail E52, unless shown otherwise.
- If precast box culverts are used, contractor shall be ADOT wingwall details and dimensions shown on plans.
before you begin excavation. Call at least two full working days
In Maricopa County: (602) 263-1100
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
Arizona Blue Stake, Inc.

Notes:
1. RCBC shall be constructed in accordance with ADOT Std
   Dwg SD-6.01 and SD-6.04.
2. Inlet headwall shall be based on
   ADOT Std Dwg SD-6.20 (Type B), Level wing. South wing L-118',
   north wing L-101'.
3. Outlet wingwalls shall be based
   on ADOT Std Dwg SD-6.08
   (0° skew, 4x2 steps).
4. Handrail shall be installed on
   handrails and wingwalls as shown
   on the plans & per PAC Std DN 105.
5. Rock Muck for permanent erosion
   control shall be installed per SWPPP
   Sheet Detail ES2, unless shown
   otherwise.
6. If precast box culverts are used,
   contractor to adjust ADOT wingwall
details and dimensions specified
above to fit.

Notes:
1. PAG Std Dtl 105
2. New 8" Steel Gas (SWG)
   Top Elev=3069.42
3. New 4-10'x 5'x 133' RCBC
4. Concrete Cutoff Wall
   1'x 6'
   Sta 19+22.00
   Inv= 3073.30
5. Double Side Channel Inlet
   See Detail E3
6. Concrete Cutoff Wall
   1'x 4'
   Sta 192+58.00
   Houghton Rd=C=
   Outlet Velocity= 10.7 fps

Notes:
1. PAG Std Dtl 105
2. New 4-10'x 5'x 133' RCBC
   Top Elev=3071.10
3. Inlet Headwall shall be based on
   ADOT Std Dwg SD-6.20 (Type B), Level wing. South wing L-118',
   north wing L-101'.
4. Outlet wingwalls shall be based
   on ADOT Std Dwg SD-6.08
   (0° skew, 4x2 steps).
5. Handrail shall be installed on
   handrails and wingwalls as shown
   on the plans & per PAC Std DN 105.
6. Rock Muck for permanent erosion
   control shall be installed per SWPPP
   Sheet Detail ES2, unless shown
   otherwise.
7. If precast box culverts are used,
   contractor to adjust ADOT wingwall
details and dimensions specified
above to fit.

Notes:
1. PAG Std Dtl 105
2. New 8" Steel Gas (SWG)
   Top Elev=3069.42
3. New 4-10'x 5'x 133' RCBC
   Top Elev=3071.10
4. Concrete Cutoff Wall
   1'x 6'
   Sta 19+22.00
   Inv= 3073.30
5. Double Side Channel Inlet
   See Detail E3
Call at least two full working days before you begin excavation.

In Maricopa County: (602) 263-1100
Dial 8-1-1 or 1-800-STAKE-IT (782-5348) Arizona Blue Stake, Inc.

1 inch = 1 ft.
before you begin excavation. Call at least two full working days
In Maricopa County: (602) 263-1100
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
Arizona Blue Stake, Inc.

1.37%
Outlet Velocity=15.2 fps
New 2-10'x 5'x 124' RCBC
Outlet wingwalls shall be based on ADOT Std Dwg SD-6.08
3° skew, 4:1 slope.

4. Handrail shall be installed on
headwalls and wingwalls as shown
on the plans & per PAG Std DN 105.

5. Rock Wash for permanent erosion
control shall be installed per SWPPP
Sheet Detail E52, unless shown otherwise.

6. If precast box culverts are used,
contractor to adjust ADOT wingwall
details and dimensions specified
above to fit.

Notes:
1. RCBC shall be constructed in
accordance with ADOT Std
Dwg SD-6.01 and SD-6.02.

2. Inlet headwall shall be based on
ADOT Std Dwg SD-6.15 (Type B
level wings, South wing L=16'
North wing L=16')

3. Outlet wingwalls shall be based on
ADOT Std Dwg SD-6.08
4° skew, 4:1 slope.

1/2 inch = 20’
before you begin excavation. Call at least two full working days.

In Maricopa County: (602) 263-1100

Dial 8-1-1 or 1-800-STAKE-IT (782-5348)

Arizona Blue Stake, Inc.

1 inch =         ft.

PSOMAS

NOT FOR DRAFT FINAL

PIMA COUNTY DEPARTMENT OF TRANSPORTATION

PROJ. ENG.: CHECKED:

DESIGNED:

DRAWN:

DATE

DATE

DIV. ENG. ENGINEER

REVISION DESCRIPTION

NO.

HORIZ.

VERT.

333 E. Westmore Road, Suite 450
Tucson, AZ 85705
(520) 292-2300    (520) 292-1290  fax
www.psomas.com

Notes:

1. ROCD shall be constructed in accordance with ADOT Std. Dwg SD-6.01 and SD-6.02.

2. Inlet headwall shall be based on ADOT Std. Dwg SD-6.20 (Type B). Level wings. South wing L=124', north wing L=125', 90° skew

3. Outlet wingwalls shall be based on ADOT Std. Dwg SD-6.08 40° skew, 4:1 slope.

4. Handrail shall be installed on handrails and wingwalls as shown on the plans per PAG Std DWG 105.

5. Rock Mulch for permanent erosion control shall be installed per SWPPP Sheet Details E32, unless shown otherwise.

6. If precast box culverts are used, contractor to adjust ADOT wingwall details and dimensions specified above to fit.

SAVE AND FILE

20+00

19+00

18+00

1+00

1-00

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-6-00

-7-00

-8-00

-9-00

18+00

19+00

20+00

21+00

22+00

305-03-0090

305-01-009A

304-06-099F

238

1'=20'

10

40

20

0

40

20

0

40

20

0

1'x 6'

Concrete Cutoff Wall

New R/W

New R/W

Concrete Cutoff Wall

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Concrete Cutoff Wall
before you begin excavation. Call at least two full working days
In Maricopa County: (602) 263-1100
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
Arizona Blue Stake, Inc.

Notes:
1. RCP shall be constructed in accordance with ADOT Std
  Dwg C-13.10.
2. Inlet headwall shall be based on
   Special Details. See Detail E9
3. Outlet headwall shall be based on
   ADOT Std Dwg SD-30 (48" pipe,
   20° skew, 4:1 slope).
4. Handrail shall be installed on
   headwalls as shown on the plane
   & per PAG Std Dwg E00.
5. Rock Wall for permanent erosion
   control shall be installed per SWPPP
   Sheet Detail E52, unless shown otherwise.
before you begin excavation. Call at least two full working days before you begin excavation.

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Arizona Blue Stake, Inc.

0 inch =         ft.

Notes:
1. RCP shall be constructed in accordance with ADOT Std Dwg C-13.30.
2. Inlet headwall shall be based on ADOT Std Dwg SD-6.30 (modified angle as shown, S1+3.9).
3. Outlet headwall shall be based on ADOT Std Dwg SD-6.30 (modified angle as shown, S1+3.9 - 91).
4. Handrail shall be installed on headwalls as shown on the plans & per FM Std CP 105.
5. Rock Wash for permanent erosion control shall be installed per SWPPP Sheet detail 1.32.6. unless shown otherwise.
before you begin excavation. Call at least two full working days
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Arizona Blue Stake, Inc.

1 inch = 20'
1 inch = 4'

Notes:
1. CP shall be constructed in accordance with ADOT Std Dwgs C-13.10 and C-13.15.
2. Inlet headwall dimensions shall be based on ADOT Std Dwgs SO-6.30 (12 of 5) for 24" pipe, 21' MW.
3. Outlet headwall dimensions shall be based on ADOT Std Dwgs SO-6.30 (12 of 5) for 24" pipe, 21' MW.
4. Handrail shall be installed on handrails and whistle as shown on the plans & per PAG Std ON 105
5. Rock Wall for permanent erosion control shall be installed SWPP Spec. 1014-4.03, unless shown otherwise.
6. See Detail E9 for reinforcement and slow cross section view.
7. Match Existing Ground along Lip of Channel.
THIS SHEET LEFT INTENTIONALLY BLANK
before you begin excavation. Call at least two full working days before excavating.

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40' = 1" 4'=1"

PAG Std Dtl 308, Type 4
Inlet Elev=3056.36
Sta 249+42.11, 10.00' Lt

PAG Std Dtl 308, Type 3
Inlet Elev=3056.31
Sta 249+42.11, 10.00' Lt

PAG Std Dtl 308, Type 3
Inlet Elev=3056.47
Sta 250+00.00, 10.00' Lt

100 = 5.24 CFS
101 = 2.78 CFS
102 = 0.30% @ 0.30%
103 = 1.96 CFS
104 = 0.30% @ 0.30%

Prefabricated "Y"
Prefabricated "Y"
## Channel Typical Section 3 Dimension Table (Continued)

<table>
<thead>
<tr>
<th>Channel Begin Station</th>
<th>Channel End Station</th>
<th>Transition Begin Station</th>
<th>Transition End Station</th>
<th>A (Ft)</th>
<th>Foreslope</th>
<th>Bookslope</th>
</tr>
</thead>
<tbody>
<tr>
<td>1094.00</td>
<td>1094.31</td>
<td>1094.25</td>
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<td>5</td>
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<td>3:1 to 1:1</td>
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<td>1105.00</td>
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<td>1125.00</td>
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<td>1124.50</td>
<td>5</td>
<td>5 to 15</td>
<td>2:1 to 1:1</td>
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<td>1134.82</td>
<td>1144.00</td>
<td>1134.82</td>
<td>1134.82</td>
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<td>14 to 5</td>
<td>Vert to 1:1</td>
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<td>15 to 9</td>
<td>6:1 to 3:1</td>
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<td>1356.60</td>
<td>1357.00</td>
<td>1356.75</td>
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<td>3:1 to Vert</td>
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<td>1355.00</td>
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<td>5 to 15</td>
<td>3:1 to Vert</td>
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<td>1414.74</td>
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<td>Vert to 1:1</td>
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<td>1514.40</td>
<td>5</td>
<td>5 to 15</td>
<td>3:1 to Vert</td>
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<td>1524.60</td>
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<td>10 to 15</td>
<td>3:1 to Vert</td>
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<td>1534.80</td>
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<td>10 to 15</td>
<td>3:1 to Vert</td>
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<tr>
<td>1544.00</td>
<td>1544.00</td>
<td>1544.00</td>
<td>1544.00</td>
<td>16</td>
<td>16 to 25</td>
<td>3:1 to Vert</td>
</tr>
</tbody>
</table>

### Notes:
- 3:1 and 2:1 slopes are typical. For variation, see tables this sheet.
- Typical distance is shown. For variation, see Channel Plan sheets.
- Grading is needed at locations to maintain positive drainage from right of way to channel. See Channel Plan sheets for locations.
Notes:
1. All elevations are at channel flowline unless otherwise noted.
2. Base elevation=3000 ft
3. Channel flowline spot elevations are at +00, unless otherwise noted. Channel top of bank spot elevations are at +00 +50, unless otherwise noted.

**Houghton Road**

Sta 99+25,00

**BEGIN CONSTRUCTION**

Exst R/W

Exst Water Easement

Exst Comm Easement

Exst Gas Easement

Exst Gas and Electric Easement

Exst TEP Easement

Exst R/W

Begin Type 1 Channel

Sta 102+00, 43.57' Rt

Begin Type 2 Channel

Sta 106+25, 52.22' Rt

Begin Type 3 Channel

Sta 108+75, 56.91' Rt

Sta 109+46.12, 62.31' Rt

Exst Water Easement

Exst R/W

Sta 102+75, 49.49' Rt

Angle Point

Sta 106+35, 54.87' Rt

Angle Point

Sta 109+31, 61.57' Rt

Sta 109+31, 70.34' Rt

Elev=3018.90

Elev=3018.50

Elev=3018.05

Elev=3017.50

Elev=3016.50

Elev=3011.50

Elev=3011.00

Elev=3010.50

Quantities:

231 SY Shotcrete

22 CY Dumped Riprap

182 SY Handplaced Riprap

Notes:
1. All elevations are at channel flowline unless otherwise noted.
2. Base elevation=3000 ft
3. Channel flowline spot elevations are at +00, unless otherwise noted. Channel top of bank spot elevations are at +00 +50, unless otherwise noted.
Notes:
1. All elevations are at channel flowline unless otherwise noted.
2. Base elevation=3000 ft
3. Channel flowline spot elevations are at +00, unless otherwise noted. Channel top of bank spot elevations are at +00 +50, unless otherwise noted.
4. Sta 116+00 to 129+00, Grade from right of way to the top of new channel back slope at 2% to ensure positive drainage from right of way to new channel.

Quantities:
1083 SY Shotcrete
6 CY Dumped Riprap

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2. Base elevation=3000 ft
3. Channel flowline spot elevations are at +00, unless otherwise noted. Channel top of bank spot elevations are at +00 +50, unless otherwise noted.
4. Sta 116+00 to 129+00, Grade from right of way to the top of new channel back slope at 2% to ensure positive drainage from right of way to new channel.