City of Portland Bureau of Transportation
Plans for Proposed Project
Grading, Drainage, Paving, Signing, Striping & Roadside Development

N.E. 27th Ave.
N.E. Holland St. to N.E. Columbia Blvd. LID
Multnomah County
March 2019

End of Project
Sta. "27" 03+27.40

Beginning of Project
Sta. "27" 00+13.21

LOCATION MAP

Overall Length of Project = 300 Feet

Digital Signature

Dig Safely.
Website: http://www.call811.com
Call the Oregon One-Call Center
DIAL 811 or 1-800-332-2344

EMERGENCY TELEPHONE NUMBERS

PORTLAND SIREN GAS
City of Portland: (503) 823-4999
State of Oregon: (800) 860-7377

PORTLAND WATER
City of Portland: (503) 823-4999
State of Oregon: (800) 860-7377

PORTLAND TRIMET
City of Portland: (503) 823-4999
State of Oregon: (800) 860-7377

PORTLAND PSE
City of Portland: (503) 823-4999
State of Oregon: (800) 860-7377

POTENTIAL UNDERGROUND FACILITY OWNERS
THE OREGON UTILITY NOTIFICATION CENTER.

THE OREGON UTILITY NOTIFICATION CENTER. TABLE OF CONTENTS

1. Maps
2. Specifications
3. Cost Estimates
4. Construction Contracts
5. Financial Reports
6. Project Management
7. Safety Plans
8. Environmental Impact Statements
9. Public Meetings
10. Legal Documents

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Sta. '27' 02+64.81 to Sta. '27' 02+70.81
Sta. '27' 02+82.41 to Sta. '27' 03+28.83
Sta. '27' 02+89.91 to Sta. '27' 02+95.91
Sta. '27' 02+64.91 to Sta. '27' 02+70.91

N.E. 27th Ave.

Typical Section

Scale: 3'-0" = 1'-0"

N.E. Holland St.

Sta. 'H' 00+83.69 to Sta. 'H' 00+95.89 (Transition Section)
Sta. 'H' 00+90.41 to Sta. 'H' 00+95.89 (Transition Section)

Typical Section

Scale: 3'-0" = 1'-0"
Section

Metal Anchor Plate
Bolt Down

Scale: 3" = 1'-0"

Handrail post
5/8" dia. drain hole through anchor plate
1/2" anchor plate with hexagon & self locking nut & washer
Concrete sidewalk

Section

Monolithic Wall, Curb and Sidewalk

Scale: 3" = 1'-0"

Score/dummy joint
Pay limits
6:1 Batter

Warning
If this bar does not measure 1" then drawing is not to scale.
Profile
Scale 1" = 10' Horiz.
Scale 1" = 1' Vert.

"HR" line grade @
Existing grade @
Proposed gutter grade @

PVI 20+22.19
Elev 62.68

PVI 20+67.39
Elev 63.84

PVI 20+81.06
Elev 64.36

PVI 20+85.09
Elev 64.42

PVI 21+26.40
Elev 65.63

2.57%
3.80%
1.49%
2.93%

21+00
21+50
22+00

20+50

N.E. Holland St. to N.E. Columbia Blvd. LID
N.E. 27th Ave.

IF THIS BAR DOES
NOT MEASURE 1"
THEN DRAWING IS
NOT TO SCALE.

WARNING

APPROVALS:
CITY ENGINEER                          REG. PROF. ENGR. NO. 51538PE
SUPERVISING ENGINEER                   REG. PROF. ENGR. NO. 84470PE
R. Bennett
Mar. 2019
E11031
T00683
D. Ramer
OREGON J15, 1997

Jerry B. Schoenfeld
JIM BOYD
HOUSE
J. Shepard

PBOT
N.E. 27th Ave.
N.E. Holland St. to N.E. Columbia Blvd. LID
Street Profile
N.E. Holland St. at N.E. 27th Ave.

STEVE TOWNSEN, P.E.
COMMISSIONER
CITY ENGINEER

Expires 06/30/19
Construction Notes:

1. Install inlet protection - 1

7. Remove and salvage fence.

20. Relocate power pole (by others).

24. Adjust gas facility (by others).

45. Construct monolithic sidewalk ramp.

46. Construct concrete driveway.
   See 2F Sheets and Std. Drg. No. P-529.

47. Construct AC driveway connection.


49. Construct 10 in. AC pavement repair.

53. Adjust inlet - 1.

54. Adjust box - 2.

57. Install topsoil - 6 in. thick.

58. Install lawn seeding

59. Plant tree (by others).

60. Construct 4 x 6 cut out for tree - 2.

61. Install metal handrail.
   See Detail "A" on Sht. 2B and

153. Adjust box - 1.

54. Adjust inlet - 1.

57. Install topsoil - 6 in. thick.

58. Install lawn seeding

59. Plant tree (by others).

60. Construct 4 x 6 cut out for tree - 2.

61. Install metal handrail.
   See Detail "A" on Sht. 2B and

153. Adjust box - 1.

54. Adjust inlet - 1.

57. Install topsoil - 6 in. thick.

58. Install lawn seeding

59. Plant tree (by others).

60. Construct 4 x 6 cut out for tree - 2.

61. Install metal handrail.
   See Detail "A" on Sht. 2B and

153. Adjust box - 1.

54. Adjust inlet - 1.

57. Install topsoil - 6 in. thick.

58. Install lawn seeding

59. Plant tree (by others).

60. Construct 4 x 6 cut out for tree - 2.

61. Install metal handrail.
   See Detail "A" on Sht. 2B and

153. Adjust box - 1.

54. Adjust inlet - 1.

57. Install topsoil - 6 in. thick.

58. Install lawn seeding

59. Plant tree (by others).

60. Construct 4 x 6 cut out for tree - 2.

61. Install metal handrail.
   See Detail "A" on Sht. 2B and
**SUMP NOTES:**

1. Design flows reflect a factor of safety of 2.
2. All sumps must be tested by the contractor as directed and approved by the BES field inspector.
3. Sump testing must take place after sump construction is complete and before the construction of the sedimentation manhole. Should a sump test fail to verify adequate capacity, an additional sump, constructed in series with the first sump (a minimum of two sumps per system) must be required. Should a test of two sumps in series fail to verify adequate capacity, an alternative public stormwater destination must be required, as approved by BES.
4. Notify BES field inspector and BES Construction Manager at least 48 hours before beginning sump testing. A BES representative must be present during all sump capacity tests.
5. BES will contact the Portland Water Bureau or applicable water district to arrange for sump test water supply and obtain the necessary permits. Upon receipt of hydrant permits, the Contractor can contact BES Materials Testing Laboratory (MTL) and make arrangements to lease sump testing equipment. Contractor can also lease similar testing equipment from any vendor with BES approval.
6. MTL Sump testing equipment is subject to leasing conditions and fees. Note that sump capacity tester is available on a first come – first served basis. The tester and pipe trailers may be rented per day for a maximum of two days per written application. Contact MTL at 1405 N River, at (503) 823-2349. Insurance on the MTL leased equipment is required.
7. Provide water flow from fire hydrants to sump being tested using an 8-inch nominal diameter pipe. Deliver clean, potable water to sumps. Introduction of sediment is not acceptable and may result in failure of sump capacity test and reconstruction of sump.
8. The test may be completed using flow from one fire hydrant. However, a second fire hydrant may be necessary to complete the sump test.
9. Fill sump with water at an initial rate of 300 gallons per minute (gpm), and record water elevation below sump rim after five minutes. Maintain initial flow rate and continue taking recordings of the water elevation at five-minute intervals until the water surface reaches a constant elevation. Then increase flow rate by 300 gpm, and record the water elevation at the new flow rate as described in the initial process. Continue the sump test by increasing the flow rate at increments of 300 gpm until the sump has reached its maximum capacity.
10. Upon completion of each sump test, compare tested sump capacity flow rate to the minimum flow rate noted in the Plans. Notify Owner immediately if tested flow rate is less than the minimum flow rate listed.
11. Contractor must sign the sump testing results and submit to the BES field inspector.
12. The closed fire hydrant for sump testing is located at the intersections as shown in the Sump Data Table.
Construction Notes

83. Pothole to verify depth - 3.


86. Construct Std. Concrete Manhole type Sud. - 1. See Std. Dig. P-181. Orient manhole components such that frame and cover are within street section, not driveway apron.

87. Construct Concrete Manhole type Sump, 30' deep - 1. See Std. Dig. No. P-180.

88. Install 10" PVC ASTM D3034 SDR35 pipe - 19.4'.

89. Install 12" PVC ASTM D3034 SDR35 pipe - 58.9'.

90. Wrap exposed water pipe with polyethylene sheathing as approved by Portland Water Bureau.

Sta. 27'+00+62.06 (16.407H) Inter Elev. @ Gutter Opening = 62.71
Rim El. = 63.98
t. E. 10" PVC out 65.88

Sta. 27'+00+33.41 (64.649H)
Rim El. = 62.07
E. 10" PVC IN = 50.37
E. 12" PVC OUT = 59.35

Sta. 27'+00+70.84 (19.849H)
E. 12" PVC IN = 54.79
E. 12" PVC OUT = 55.55

12" PVC pipe - 20.9' (See Profile No. 1 on str. O-24A)
12" PVC pipe - 30' (See Profile No. 1 on str. O-24A)
Install sign no. 102 atop street name signs.

Paint top and face of curb yellow

Paint top and face of curb yellow

Match Line - Sta. 23+00 (See Sheet S-1)
Traffic Sign Bubble Legend

- N = Sign Number. See "Traffic Signs" Legend for the numbers.
- M = Material for Pole or Post

Material Options are:
- BA = Breakaway Anchor
- BD = Breakaway Dome
- P = Pipe Post
- FP = Flexible Post

Traffic Sign Number Legend

Sign No. 1
R1010
R1-1
30 x 30

Sign No. 2
W3700
W14-1
24 x 24

Sign No. 3
G5500
Varies x 8

Sign No. 4
P1000R
12 x 18

Sign No. 5
P1000L
12 x 18

Sign No. 101
W3730
OM4-2
18 x 18

Sign No. 102
W3975
W14-1a
36 x 8

Sign No. 103
G3501
42 x 8

Sign No. 104
G5501
24 x 8

Sign No. 105
G5501
36 x 8

Sign No. 106
P1000R
12 x 18

Sign No. 107
P1000L
12 x 18

Sign No. 108
P1000D
12 x 18

Denotes Existing Sign
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<th>SIGN LOCATION X</th>
<th>WIDTH (IN INCHES)</th>
<th>HEIGHT (IN INCHES)</th>
<th>SIGN DIMENSION</th>
<th>SIGN CODE</th>
<th>SIGN TYPE</th>
<th>ADD'D</th>
<th>SL-B-STRATE</th>
<th>TYPE OF SUPPORT</th>
<th>POST</th>
<th>FOOTING</th>
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